ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
Tank Programs Division
Underground Storage Tank (UST) Program

DOCUMENT SUBMITTAL FORM

ADEQ use only

☑ use form as COVER SHEET when submitting the documents listed below.
☑ use only for the documents listed below.
☑ all requested information must be provided.

UST FACILITY INFORMATION:

Thomas O. Price Service Center
Facility Name

0-005160
Facility ID

4004 South Park Avenue
Street Address

0767.01 - 0767.05
LUST Number(s)

Tucson
City

85726
Zip Code

Pima
County

PERSON RESPONSIBLE FOR SUBMITTING DOCUMENT:

Andrew Quigley
Name

4004 South Park Avenue, Building #1, Tucson 85726
Street Address City Zip Code

(520) 791-3171
Telephone (daytime)

PERSON CATEGORY (check just one) **ADEQ ID #**

☒ UST owner 005160
☐ UST operator
☐ UST volunteer/ Property owner

RELEASE OR CORRECTIVE ACTION DOCUMENT: (check all that are attached) [A.A.C. = Arizona Administrative Code]

DOCUMENT	A.A.C. CITATION	DOCUMENT	A.A.C. CITATION
☐ 14 day report (suspected release)	R18-12-251(E)	☐ Site characterization report (SCR)	R18-12-262(D)
☐ 90 day report (suspected release)	R18-12-251(F)	☒ Periodic site status report	R18-12-263(G)
☐ 14 day report (confirmed release)	R18-12-260(C)	☐ Tier 2 risk evaluation	R18-12-263.01(B)(2)
☐ 90 day report (confirmed release)	R18-12-261(D)	☐ Tier 3 risk evaluation	R18-12-263.01(B)(3)
☐ LUST site classification form	R18-12-261.01(E)	☐ Corrective action plan (CAP)	R18-12-263.02(B)
☐ Free Product Report	R18-12-261.02(C)	☐ Corrective action completion report w/LUST case closure request	R18-12-263.03(D)

CERTIFICATION STATEMENT OF UST OWNER, OPERATOR OR VOLUNTEER:

"I hereby certify, under penalty of law, that this submittal and all attachments are, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are penalties for submitting false information, including the possibility of a fine and imprisonment for knowing violations."

Signature of UST owner, operator or volunteer

04/19/16
Date

Andrew Quigley
Name of UST owner, operator or volunteer (printed)

Director of Environmental Services
Title

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

Periodic Site Status Report

DATE FORM COMPLETED: 04/19/16 (mm/dd/yy)

Site classification form attached? (yes) / no

Required attachments submitted? (yes) / no / NA

ADEQ use only

Date Received:

FACILITY ID: 0-00 5160 **LUST NUMBER:** 0767 (.01 - .05) **OTHER LUST(S) AT FACILITY:** NA

1. Has the ADEQ approved the site characterization report for the subject release? (YES) • NO • •
   If you checked "yes" include date of ADEQ approval and proceed to #2 below. DATE: 9/14/2011
   If you checked "no" stop here, corrective action status information is not required at this time.

2. Has a corrective action plan (CAP) been requested? YES • (NO) • •
   If you checked "no" proceed to #3 below.
   If you checked "yes" are you are proceeding with remedial corrective actions prior to CAP approval? YES • NO • •
   If you are proceeding, include date ADEQ was notified in accordance with A.A.C. R18-12-263.02(E) DATE: _____

3. Type(s) of remedial corrective action technology currently being performed. For each system in use, enter the date the system became operational.

Soil	Date	Groundwater	Date
Over-excavation		Natural attenuation (monitored)	
Vapor extraction	2/13/1996	Air sparging	2nd Q 2012
Thermal desorption		Extract and treat	
Bioremediation		Free product recovery	4th Q 1999
Land farming (on site)		Bioremediation	
Other (describe below)		Other (describe below)	

If "Other" please describe (include dates the systems became operational - attach additional pages as necessary):

4. For each of the remedial corrective action technologies checked in #3 above, attach any monitoring and laboratory results collected since submittal of the last status report form. See report.

5. For the remedial corrective action technologies checked in #3 above, attach a site plan showing their locations and any monitoring and sample collection locations, if not previously submitted. See report.

6. Check the time frame that most accurately estimates when the response activities, including remediation and verification monitoring, will demonstrate that the concentration of each chemical of concern is projected to be at or below the applicable corrective action standard.

   • • 0 - 2 years • • 2 - 5 years • • 5 - 10 years • • (greater than 10 years)

7. Attach the *LUST Site Classification Form* as required and described under R18-12-261.01.

Please note that the above information is required **once every 12 months** from the date the ADEQ approves the site characterization report for the subject release **unless** otherwise stated within an ADEQ approved corrective action plan. If you have any questions regarding this form, contact the UST Help Desk at (602) 771-4303, or toll free within Arizona at 800-234-5677 extension 4303.

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

LUST Site Classification Form

DATE FORM COMPLETED: 04/19/16 (mm/dd/yy)

ADEQ use only
DATE RECEIVED:

FACILITY ID: 0-00516 **LUST NUMBER:** 0767.01-.05 **OTHER LUST(S) AT FACILITY:** _____

RELEASE INFORMATION: [leave blank if an initial site characterization report is attached]

Component	Location	Product	Quantity
☒ tank ☐ spill ☒ piping ☐ overfill	Former UST and Piping	☒ gasoline ☐ diesel ☐ used oil ☐ jet fuel ☐ other: _____	Unknown gallons

GEOLOGIC INFORMATION: [leave blank if an initial site characterization report is attached] [bgs = below ground surface]

Lithology: (indicate the scenario that most closely matches site conditions, attach site specific lithologic log if available)

☒ alternating silt/sand/gravel ☐ sands ☐ alluvium overlying river run gravel ☐ alluvium overlying bedrock

Depth To Bedrock: unknown feet bgs known / estimated Bedrock type: ☒ igneous ☐ sedimentary ☐ metamorphic

HYDROLOGIC INFORMATION: [leave blank if an initial site characterization report is attached]

Groundwater Depth: 94-156 feet bgs (known) / estimated Aquifer type: ☒ unconfined ☐ confined ☒ perched

Groundwater Flow Direction: NNE Lower (ex: SW, NNW, ENE) Gradient: 0.0099 (known) / estimated

STATUS OF CORRECTIVE ACTION ACTIVITIES:[leave blank if an initial site characterization report is attached]

	on-site	off-site	extent defined	remediation complete
Vapors:	yes / (no) / unk	yes / (no) / unk	yes / no / (NA)	yes / no / (NA)
Soil:	(yes) / no / unk	yes / (no) / unk	(yes) / no / NA	yes / (no) / NA
Groundwater:	(yes) / no / unk	(yes) / no / unk	(yes) / no / NA	yes / (no) / NA
Surfacewater:	yes / (no) / unk	yes / (no) / unk	yes / no / (NA)	yes / no / (NA)
Free Product:	(yes) / no / unk	(yes) / no / unk	(yes) / no / NA	yes / (no) / NA

[unk = unknown] [NA = not applicable]

RECEPTOR INFORMATION:

On-site land use: ☐ residential ☒ non-residential

Nearest public/private well:	0.5 feet / (miles)	☐ no threat	☐ threatened	☐ impacted	☒ unknown
Nearest surfacewater:	>1 feet / (miles)	☒ no threat	☐ threatened	☐ impacted	☐ unknown

GROUNDWATER QUALITY:

☐ potable ☐ naturally non-potable ☒ artificially non-potable, regional ☐ artificially non-potable, locally

SITE CLASSIFICATION: (see *RBCA Site Classification Determination Worksheet*)

Current: 1 2 (3) 4 Previous: 1 2 (3) 4

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK PROGRAM

RBCA Site Classification Determination Worksheet

Risk based corrective action (RBCA) site classification is based on the ASTM Standard for Risk-based Corrective Actions at Petroleum Release Sites and A.A.C. R18-12-261.01

INSTRUCTIONS: Circle the applicable criteria status for each receptor/media impact criterion. The site classification is determined by the column farthest to the left for which **ANY** criterion was circled.

CRITERIA FOR RECEPTOR/MEDIA IMPACT	APPLICABLE CRITERIA STATUS			
Explosive vapor levels in buildings	Yes	Potential		
Explosive vapor levels in subsurface conduits	Yes	Potential		
Vapor levels causing acute health effects in building	Yes	Potential		
Vapor levels causing acute health effects outdoors	Yes	Potential		
Free product in surficial soils	Yes			
Free product in subsurface conduits	Yes			
Contaminated surficial soils		R* <500 ft	R* >500 ft	
Contaminating subsurface soils			Leachable	Leachable
Active drinking water groundwater supply well impact (well screened in same interval as plume)	Yes	<2 years**	>2 years**	
Active drinking water groundwater supply well impact (well screened in different interval as plume)		Yes	Outside of plume	
Active non-potable use groundwater supply well impact (well screened in same interval as plume)		Yes	>2 years**	No use of groundwater
Active non-potable use groundwater supply well impact (well screened in different interval as plume)			Yes	Outside of plume
Free product on surface water	Yes			
Potable use surface water impact	Yes	R* <500 ft	R* <1500 ft	
Ecological and non-potable surface water impact	Yes	R* <500 ft	R* <1500 ft	
RBCA Site Classification	**1 Immediate threats**	**2 Short term threats**	**3 Long term threats**	**4 No long term threats**

NOTES:

* R denotes receptors, which may include, for purposes of site classification, persons, springs, surface water, agricultural and ecological habitats. Wells as receptors are treated separately.

** Time refers to plume migration to well. If no site specific data is available, assume a migration rate equivalent to groundwater flow velocity.

Cardno
Shaping the Future

Cardno

9977 North 90th Street
Suite 150
Scottsdale, AZ 85258

Phone **+1 602 977 8000**
Fax +1 602 977 8099
www.cardno.com

April 19, 2016

Ms. Tara Rosie
Arizona Department of Environmental Quality
Waste Programs Division, UST Corrective Action Section
1110 West Washington Street
Phoenix, Arizona 85007

RE: Certification Letter
2015 Annual Remediation Status and Groundwater Monitoring Report
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona
ADEQ LUST File Nos. 0767.01-.05; ADEQ Facility ID No. 0-005160
Cardno Project No. I052000015

Dear Ms. Rosie:

Cardno was retained by the City of Tucson Environmental Services (COT-ES) to review the technical merit of the referenced document and to provide the underlying Certification Statement.

Certification: The 2015 Annual Remediation Status and Groundwater Monitoring Report for the Thomas O. rice Service Center, located in Tucson, Arizona was prepared by COT-ES. Based on Cardno's review of the document, it is our opinion that the findings and conclusions presented have been developed in accordance with currently accepted geological and engineering standards and practices applicable to this location. Based on my inquiry of the COT-ES persons responsible for gathering the information presented in this report, the information is, to the best of my knowledge and belief, true accurate and complete to the extent practicable. I am aware that there are significant penalties for submitting false information.

Girard E. Morgan
Arizona Registered Geologist No. 32827
Principal Geologist

If you have any questions, feel free to contact the undersigned.

Sincerely,

REGISTERED GEOLOGIST
CERTIFICATE NO.
32827
GIRARD E.
MORGAN
Date Signed 4/19/16
ARIZONA U.S.A.

EXPIRES: 9/30/2016

Girard E. Morgan, R.G.
Principal Geologist
Direct Line +1 480 355 4613
Email: ric.morgan@atcassociates.com

Enclosures

ADEQ LUST Document Submittal Forms
Annual Status and Groundwater Monitoring Report 2015 (1 hardcopy & CD)

cc: Bill Osteen, Golden Eagle Distributors (Report on CD) Jeanne Nordstrom, SAVAHCS (Report on CD) Jeff Langejans, City of Tucson, Fire Department (email) Richard Byrd, City of Tucson, Environmental Services (email) File - Price Service Center (bound full hardcopy & SIRE ETS), Justin T. Patton, Cardno, Inc. (Report on CD)

2015 ANNUAL REMEDIATION STATUS AND GROUNDWATER MONITORING REPORT

APRIL 19, 2016

THOMAS O. PRICE SERVICE CENTER
TUCSON, AZ
LUST File No. 0767.01 - 0767.05
ADEQ Facility ID No. 0-005160

Prepared by:
City of Tucson
Environmental Services
P.O. Box 27210
Tucson, Arizona 85726-7210

CITY OF TUCSON
ENVIRONMENTAL SERVICES

TABLE OF CONTENTS

Page No.

EXECUTIVE SUMMARY iv

1.0 INTRODUCTION 1
1.1 Annual Monitoring and Remediation Activities Requirements 2

2.0 ANNUAL GROUNDWATER MONITORING EVENT 3
2.1 Water Level Monitoring 4
2.2 Apparent Free Product Thickness 4
2.3 Groundwater Sampling and Field Parameter Measurements 5
2.3.1 Shallow-Zone Analytical Results 6
2.3.2 Deep Zone Analytical Results 7
2.4 QA\QC Results 7

3.0 REMEDIATION ACTIVITIES 8
3.1 TFS-10 Remediation Activities 8
3.2 Price Service Center Remediation Activities 8
3.3 Free Product Recovery by Hand Bailing 9

4.0 REFERENCES 10

S:\EMCOMMON\PSC_TFS10\Reports\ADEQ\2015 Annual Report.docx

LIST OF TABLES

Table 1 Free Product Thickness and Depth to Groundwater –March 2015
Table 2 PSC and TFS-10 Summary of Field Parameters - 2015
Table 3 Water Quality Analyses BTEX Summary for 2015
Table 4 Summary of Select VOCs Analytical Results for 2015

LIST OF FIGURES

Figure 1 Location Map
Figure 2 Site Map
Figure 3 Thomas O. Price Service Center Facility Detail
Figure 4 TFS-10 Site Layout and Well Location Map
Figure 5 Shallow Zone Groundwater Elevation Contour Map, March 2015
Figure 6 Deep Zone Groundwater Elevation Contour Map, March 2015
Figure 7 Shallow Groundwater Zone Apparent Free Product Thickness Map, March 2015
Figure 8 Free Product Thickness Maps, Years 2010 – 2015
Figure 9 Shallow Zone Dissolved Benzene Concentrations – March 2015
Figure 10 Benzene Concentration Maps, Years 2010 - 2015

LIST OF APPENDICES

Appendix A ADEQ UST Program Tier 1 Cleanup Standards January 2015
Appendix B Apparent Product Thickness Charts
Appendix C Groundwater Monitoring Analysis Matrix and Groundwater Field Sampling Sheets
Appendix D Duplicate Samples Comparison for 2015, and Laboratory Reports and Chain of Custody Information
Appendix E Historical Analytical Results Summary Table
Appendix F Benzene Concentration Time Series Plots
Appendix G 2015 TFS-10 Quarterly System Performance Summary Reports, by Cardno
Appendix H 2015 Paragon Quarterly System Performance Summary Reports, by Cardno

List of Acronyms

2-Butanone	(MEK)
Arizona Department of Environmental Quality	(ADEQ)
Arizona Department of Health Services	(ADHS)
Arizona Aquifer Water Quality Standards	(AWQS)
Below Land Surface	(BLS)
Benzene, Toluene, Ethyl-benzene, Xylene	(BTEX)
City of Tucson Environmental Services	(COT-ES)
City of Tucson Fire Station Number 10	(TFS-10)
Corrective Action Plan	(CAP)
Cubic Feet Per Minute	(CFM)
Dissolved oxygen	(DO)
Gas Chromatography/Mass Spectrometer	(GC/MS)
Leaking Underground Storage Tank	(LUST)
Light Non-Aqueous Phase Liquid	(LNAPL)
Liquid Petroleum Hydrocarbon	(LPH)
Methyl Tert-butyl Ether	(MTBE)
Monitored Natural Attenuation	(MNA)
Oxidation-Reduction Potential	(ORP)
Parts per Million by Volume	(ppmv)
Quality Control/Quality Assurance	(QA/QC)
Soil Vapor Extraction	(SVE)
Specific Conductance	(SpC)
Thomas O. Price Service Center	(PSC)
Total Petroleum Hydrocarbon	(TPH)
Total Volatile Fuel Hydrocarbons	(TVFH)
Underground Storage Tanks	(USTs)
Vacuum Enhanced Liquid Phase Hydrocarbon Remediation	(VELPHR)
Volatile Organic Analysis	(VOA)
Volatile Organic Compounds	(VOCs)

EXECUTIVE SUMMARY

This report presents the results of monitoring and remediation activities conducted by the City of Tucson Environmental Services Department (COT-ES) for the period January 1, 2015 through December 31, 2015 at the Thomas O. Price Service Center (PSC) Leaking Underground Storage Tank (LUST) site in Tucson, Arizona. Investigation and remediation activities began at the site when evidence of petroleum releases was reported to the Arizona Department of Environmental Quality (ADEQ) on June 14, 1989. Since the initial discovery, the site has been investigated and remediated under ADEQ's LUST program. The PSC appears to be the source of Liquid-Phase Hydrocarbon (LPH, also referred to as free product) and dissolved petroleum hydrocarbons in the shallow groundwater zone extending northward from the PSC to the City of Tucson Fire Station Number 10 (TFS-10), located north of Ajo Way; with the exception of the product found in wells WR-220A and PCM-516A which exhibit characteristics not consistent with fuel from the PSC.

COT-ES measured depth to water and/or free product levels in 62 shallow screened, and 13 deep screened monitor and remediation wells, and collected groundwater samples from 50 shallow and 11 deep monitor and remediation wells during the routine annual groundwater monitoring event that was conducted in March 2015. The groundwater samples were submitted to State of Arizona certified laboratories for analysis in compliance with ADEQ requirements. Measurable free product was recorded in 9 shallow groundwater zone wells, which is a decrease from 14 wells in 2014. The extent of free product has decreased over the previous five years (Table 1, Figure 8, and Appendix B). Concentrations of benzene, toluene, ethylbenzene, and xylene (BTEX) and methyl tert-butyl ether (MTBE) in the shallow aquifer continued to be detected above aquifer water quality standards (AWQS) (Tables 3 and 4 and Appendix G) in twenty-five shallow wells. Dissolved BTEX concentrations in the shallow aquifer declined in 2015, except for wells WR-212A and PCM-510B (Appendix E and F) which may have had an increase in one or more compounds. Dissolved MTBE concentrations in the shallow aquifer declined in 2015, except for in wells: WR-212A, WR-223A, WR-296A, WR-298A, R-013A, R-019A, R-033A, R-037A, R-046A, PCM-508A, PCM-509B, PCM-510B (Appendix E). All these wells are in close proximity to wells containing free-product. Of the remaining VOCs detected, none exceeded

their respective Tier 1 Cleanup Standards. Deep monitor well WR-227A has a concentration of 38.3 µg/L for methyl tert butyl ether (MTBE) which is below the Tier 1 standard of 94 µg/L.

During 2015 free product recovery was accomplished by air sweep and SVE at TFS-10, and air injection and SVE at PSC. At TFS-10, approximately 17,086 pounds (equivalent of 2,848 gallons) of free product were removed and destroyed. Since August 2002, COT-ES has removed a cumulative total of 109,195 gallons (or 658,250 pounds) of free-product by SVE/AS at TFS-10.

South of Ajo Way at PSC, approximately 222 pounds (or 37 gallons equivalent) of petroleum hydrocarbons was removed and destroyed through SVE in 2015. Due to low inlet concentrations at the SVE located at PSC, the system was shut down on July 1, 2015 and will remain down for approximately 12 months to evaluate site conditions for possible rebound of contaminant concentrations. Since April 1995, COT-ES has removed a cumulative total of 119,270 gallons (or 715,618 pounds) of free-product by SVE at PSC.

Free product thicknesses measured in March 2015 indicated that the estimated aerial extent of free product has decreased approximately 165,000 square feet (54%) since 2014 (Figure 8).

A total of 56.25 gallons of free product was manually bailed from wells PCM-516A (4.25 gallons) and WR-220A (52 gallons) during 2015. Even though the free product in WR-220A likely originated from a different source, COT-ES began bailing free product in November 2013 to minimize potential impacts to the environment on a weekly basis and has removed a total of 142.25 gallons of free product from this well.

1.0 INTRODUCTION

This report summarizes monitoring and remediation activities at the Thomas O. Price Service Center (PSC) and City of Tucson Fire Station Number 10 (TFS-10); Arizona Department of Environmental Quality (ADEQ) Facility ID No. 0-005160 and Leaking Underground Storage Tank (LUST) File No. 0767.01 The monitoring period runs from January 1, 2015 through December 31, 2015. Monitoring periods are based on calendar years (January – December).

The PSC is the primary Operations and Communications Center for the City of Tucson, located at 4004 South Park Avenue, Tucson, Arizona, near the southwest corner of Park Avenue and Ajo Way (Figures 1 and 2). The PSC formerly contained 23 underground storage tanks (USTs) and associated equipment that were the sources of multiple petroleum releases. In June 1989, diesel fuel was observed seeping from concrete joints at the north end of the dispenser islands. All of the USTs were taken out of service by November 1992. Since the initial discovery, the site has been investigated and remediated under ADEQ's LUST program. The PSC appears to be the source of Liquid-Phase Hydrocarbon (LPH, also referred to as free product) and dissolved petroleum hydrocarbons in the shallow groundwater zone extending northeast from the PSC to the TFS-10, located north of Ajo Way (Figure 2).

Monitor and remediation wells at the site are either screened across the shallow or deep zone perched aquifers. The shallow zone was defined in the original CAP (HydroGeoChem, 1994) as the upper most groundwater beneath the site with depth to water approximately 90 to 115 feet below ground surface (ft bgs). The deep zone was defined as the second groundwater bearing zone encountered beneath the site with depths to water approximately 114 to 145 ft bgs. The deep zone appears to be fairly well isolated from the regional aquifer which is 40 to 50 feet below the deep zone perched aquifer.

Remedial site goals are to remove free product that is floating on the groundwater table and to remove residual hydrocarbons in the vadose zone. Currently, the free product plume is primarily beneath the TFS-10. Remedial activities include direct product recovery by hand bailing, air sparging/sweep, and Soil Vapor Extraction (SVE). Skimmer pumps were phased out and replaced with air sweep and SVE technology with no skimmer pumps remaining by June 2013. Figure 2 presents the site layout showing the locations of the PSC and TFS-10 and the location of monitoring and recovery wells located in and around the project site. Detailed views of the PSC and TFS-10 layouts are shown in Figures 3 and 4, respectively.

1.1 Annual Monitoring and Remediation Activities Requirements

The monitoring and remedial requirements for the PSC and TFS-10 are outlined in the Corrective Action Plan (CAP) Addendum (IT Corporation, 2001), the CAP Modification (SCS Engineers, 2002), and the February 22, 2006, February 10, 2010, and May 12, 2011 letters from COT-ES to ADEQ requesting modifications to the Annual Groundwater Monitoring Analysis Matrix. Monitoring and remediation activities conducted during the annual 2015 reporting period were performed in accordance with these documents. The ADEQ approved site corrective action goals identified in the original CAP (HGC, 1994) are as follows:

Soil: Target cleanup levels in the vadose zone beneath the former underground fuel storage system are the ADEQ UST soil clean-up standards established in 1992 and are provided in the below table. However, if after extended SVE operation time these clean-up levels prove to not be realistically obtainable, the City of Tucson reserved the option to calculate risk-based, site-specific, soil remediation levels (IT Corporation, 2001).

Compound	ADEQ UST Soil Clean-up Levels (1992) (mg/kg)
TPH	100
Benzene	0.13
Toluene	200
Ethylbenzene	68
Xylenes	44

Groundwater: Target cleanup levels for groundwater are Aquifer Water Quality Standards (AWQS). The City of Tucson reserved the option to calculate risk-based, site-specific, groundwater remediation levels (IT Corporation, 2001). The table presented below indicates the site specific chemicals of concern.

Compound	AWQS (ug/L)
Benzene	5
Toluene	1,000
Ethylbenzene	700
Xylene	10,000
Naphthalene (no longer listed)	280
Ethylene dibromide (EDB)	0.05
1,2 dichloroethane	5

In addition to the above referenced AWQS standards, all detected compounds were compared to the ADEQ UST Program Tier 1 Cleanup Standards for Petroleum Products dated January 2015. The standards are included in Appendix A.

All analytical test results are produced by laboratory EPA Method 8260B for VOCs. The method's reporting limit for analyte 1,2 dibromoethane (EDB) (<1 µg/L) is higher than the respective AWQS of 0.05 µg/L. In 2013, select wells (perimeter and near source wells) were monitored for EDB at lower detection limits (<0.019 µg/L) by EPA Method 504.1; all results were non-detect including "near source" wells (COT-ES, 2014). Future analysis for VOCs will be conducted under EPA Method 8260B for all compounds. Should future results through EPA Method 8260B indicate EDB is rebounding in interior wells then COT-ES will resume the additional analytical method to delineate this compound.

2.0 ANNUAL GROUNDWATER MONITORING EVENT

The annual groundwater monitoring event was conducted in March 2015. The following tasks were completed during the monitoring period:

- Depths to groundwater and free product (if present) were measured in 62 shallow-zone wells and 13 deep-zone wells between March 16 and 17, 2015 (Table 1).

- Specific conductance (SpC), dissolved oxygen (DO), pH and oxidation-reduction potential (ORP), were measured in 50 shallow monitoring and multipurpose wells, and 11 deep-zone monitoring wells (Table 2) after sample collection.

- Between March 18, 2015 and March 31, 2015, groundwater samples were collected from a total of 50 shallow-zone monitoring wells and 11 deep-zone monitoring wells (Table 3). Groundwater samples were not collected from wells with free product. All samples were analyzed by EPA Method 8260B with the majority of samples reporting only dissolved concentrations of BTEX and MTBE. Seven down-gradient perimeter (WR-219A, WR-222A, WR-223A, WR-227A, and WR-233A) and two "near-source" monitor wells (WR-215A and WR-217A) were analyzed by EPA method 8260B with reporting the full list of sixty-four VOCs (full-list VOCs) available by this method. Due to free product being present in monitor well WR-220A, COT-ES had to deviate from the approved analyte list (Appendix C). Monitor wells WR-219A and WR-223A were already listed for full VOCs analysis and will serve as replacement well for WR-220A.

- Cardno, the City's environmental consulting firm, assisted in monthly gaging of depth to water and free product, and is under contract to maintain and improve remediation efforts at the site. Quarterly reports documenting Cardno's activities are included as Appendices G and H.

2.1 Water Level Monitoring

The March 2015 groundwater level measurements were used to construct potentiometric groundwater elevation contour maps that depict conditions consistent to historic reports.

The groundwater flow direction in the shallow zone system is to the north-northeast with a calculated hydraulic gradient of approximately 0.0099 ft/ft across the study area in March 2015 (Figure 5).

The groundwater flow direction and gradients are both to the northwest in the deep groundwater zone (Figure 6). The flow directions and gradients in both groundwater zones are generally consistent with those of previous reporting periods.

2.2 Apparent Free Product Thickness

Free product is present at the TFS-10 property, and it extends eastward along the Ajo Way east of Park Ave. Limited free product is also present south across Ajo Way on the Price Service Center property (Figure 7). Depth to water and free product thicknesses were measured on March 16 and 17, 2015, 5 days after remedial systems had been shut down on March 11, 2015. The March 16 and 17, 2015 measurements were used for mapping and reporting purposes (Table 1 and Figures 7 and 8).

Table 1 and Figure 7 present the March 2015 depths to free product, free product thicknesses, and depths to groundwater. Measurable free product was recorded in 9 shallow groundwater zone wells which is a decrease from 14 shallow groundwater wells reported last year. Shallow groundwater well WR-220A located approximately 0.3 mile (1,500 feet) downgradient from the PSC release area, was discovered to have 1.62 feet of product on March 20, 2013 continued to have free-product into 2014. COT-ES characterized the free product and determined that PSC was not the source of free-product present in WR-220A (COT-ES, 2014). In December 2014, ADEQ concurred the gasoline present in WR-220A was in close proximity of other potential sources and was not produced by PSC (COT-ES, 2015).

The thickest free product accumulations in March 2015 measured at TFS-10 vicinity wells were: PCM-534A (1.57 ft), PCM-507A (1.26 feet), and R-051A (0.9 ft). The free product thickness boundaries were contoured at intervals of 0.01, 0.10, and 1.0 in feet and included as Figure 7. The March 2015 contours were compared to previous free product contours years 2014 thru 2010 on Figure 8. Figure 8 shows changes of free product at the site over a four year period with consistent scales (1:4,800 absolute), intervals (0.01, 0.10, and 1.0 ft), and color scheme. The previous year contours were initially provided in their respective annual monitoring reports.

Free product thicknesses measured in March 2015 indicate that the estimated aerial extent of free product has decreased by approximately 160,000 square feet; a decrease of 54% between the 2014 and 2015 measurements at both the TFS-10 and PSC areas.

In addition to the above yearly comparison with resting the systems, free product thicknesses are gaged in all wells with product monthly and charted (Appendix B). The list of wells measured monthly is adjusted based on the yearly comprehensive event. The charts are separated by remediation zones or area, and will be discussed in more details under the remediation portion of the report.

No deep-zone wells contained free product during the monitoring period, nor has free product been detected in the deep-zone aquifer at any time since monitoring began at this site.

2.3 Groundwater Sampling and Field Parameter Measurements

Groundwater samples were collected from a total of 50 shallow-zone monitoring wells and 11 deep-zone monitoring wells between March 18, 2015 and March 31, 2015. Groundwater samples were not collected from wells exhibiting free product as indicated during the March site-wide gauging event (Table 1) or if product was present at time of sample collection.

Groundwater sampling was conducted in general compliance with the State of Arizona Department of Environmental Quality Underground Storage Tank Program *Release Reporting and Corrective Action Guidance, Appendix H. Groundwater Sampling,* dated August 20, 2002. Groundwater samples were collected by a disposable single check valve bailer, as a grab method, with no well purging. Field parameters, including temperature, pH, SpC, temperature, DO, ORP, and turbidity were measured and recorded on the field sheets after sample vials were filled. The field parameter measurements are presented in Table 2.

Field QA protocol during the sampling event consisted of:

- One trip blank per day or per each cooler was collected.
- Collection of one duplicate sample for every ten primary samples.

Each well sample was analyzed in accordance with the groundwater monitoring analysis matrix detailed in a May 12, 2011 letter from COT-ES to ADEQ. A copy of the currently approved groundwater monitoring analysis matrix is provided in Appendix C with the field sampling sheets. Laboratory reports are provided in Appendix D.

2.3.1 Shallow-Zone Analytical Results

Dissolved BTEX concentrations in the shallow aquifer declined in 2015, except for wells WR-212A and PCM-510B (Appendix E and F) which may have had an increase in one or more compounds. Dissolved MTBE concentrations in the shallow aquifer declined in 2015, except for in wells: WR-212A, WR-223A, WR-296A, WR-298A, R-013A, R-019A, R-033A, R-037A, R-046A, PCM-508A, PCM-509B, PCM-510B (Appendix E). All these wells are in close proximity to the free-product plume. Table 3 lists the 2014 results for BTEX and MTBE, and highlights each constituent above the respective AWQSs (or Tier 1 Cleanup Standard). Appendix E provides the historical analytical results summary table. The following bullets summarize the March 2015 sampling event:

- Ten shallow zone wells were above the benzene AWQS of 5 µg/L with the maximum observed concentration at PCM-517A with 5,950 µg/L (Table 3 and Figure 9). Benzene concentration time series plots are included as Appendix F and Figure 10 compares the 2015 benzene contours to previous years through 2010. The estimated aerial extent of benzene concentrations above 5 micrograms per liter (µg/L) has decreased by approximately 74,000 square feet or 12% reduction between the 2014 and 2015 measurements.
- Two shallow zone wells were above the toluene AWQS of 1,000 µg/L with the maximum observed concentration at R-030A with 3,240 µg/L (Table 3).
- Two shallow zone wells were above the ethylbenzene 700 µg/L AWQS with the maximum observed concentration at PCM-512A with 1,050 µg/L (Table 3).
- No wells exceeded the total xylenes 10,000 µg/L AWQS.
- Twenty-four shallow zone wells were above the MTBE ADEQ UST Program Tier 1 Cleanup Standard of 94 µg/L. The maximum observed concentration was observed at R-037A with 19,400 µg/L.

Table 4 presents selected VOCs which were detected from the analysis of Method 8260B full-list. Compounds detected were compared to their respective AWQS or ADEQ UST Program Tier 1 Cleanup Standard. VOCs including 1,2,4 trimethylbenzene, 1,2 dichloroethane, 1,3,5 trimethylbenzene, isopropylbenzene, naphthalene, n-butylbenzene, n-propylbenzene, and sec-butylbenzene and tert-butyl alcohol were detected in several shallow-zone monitoring wells. Of these detected compounds, only 1,2 dichloroethane has a respective AQWS of 5 µg/L. All detections for 1,2 dichloroethane were below that standard.

2.3.2 Deep Zone Analytical Results

The majority of analytical results were below laboratory detection levels (Tables 3 and 4) in samples collected from the 11 deep zone monitoring wells. There were no AWQS exceedances in any of the deep zone monitor wells. No BTEX compounds were detected in any of the deep zone monitor wells. MTBE was detected in one deep zone monitor well, WR-227A, at a concentration of 38.3 µg/L. Concentrations of MTBE for WR-227A are considered consistent from the previous year (38.5 µg/L), but has overall decreased compared to previous years (maximum concentration 140 µg/L in April 2010).

2.4 QA\QC Results

Quality assurance/quality control (QA/QC) analyses for the 2015 sampling events included 6 duplicate sample analyses and 8 trip blanks. Analytical results for QA/QC samples are presented in the laboratory reports in Appendix D, and summarized in tables in Appendix E.

No analytes were detected in any of the trip blanks. Trip blanks results are provided in the laboratory reports in Appendix D.

The laboratory recovery percentages were within laboratory quality assurance objectives for accuracy, except for the data qualifiers listed in the case narratives presented in Appendix D. All were within acceptable quality and would not affect data results. Several matrix spike and matrix spike duplicate recovery(s) were noted as out of control limits, but failure of these types of controls is normal due to matrix interference. All other laboratory controls (surrogate recoveries, method blanks, and blank spikes) met control criteria limits.

The five sample duplicate analyses were compared with the original sample analyses to evaluate the degree of laboratory precision; duplicate comparisons are summarized in tables included in

Appendix D. The relative percent differences (RPD) between the sample and its duplicate for all detected analytes were within industry standard (below 20%). COT-ES believes there are no quality control issues with this data set, and they can be used for its intended purpose.

3.0 REMEDIATION ACTIVITIES

Remedial activities during the monitoring period included direct recovery by hand bailing, air-sweeping, and vapor phase recovery by SVE. All remedial systems were shut down prior to the annual free-product measurement event (March) to allow the sub-surface environment to stabilize and provide a check on stable site conditions; all other measurements are with the systems operating.

3.1 TFS-10 Remediation Activities

Free product recovery activities at TFS-10 included the operation of air sweep technology in combination with the VELPHR remedial system (SVE wells) (Figure 4). As previously reported, all skimmer pumps were replaced with air sweep technology by April 2013 (COT-ES, 2014). Air sweeping consists of pushing compressed air through or across the top of the free-product, and removing the volatized compounds with the SVE system. The system has seven zones (1-7) which represents remediation wells on the same trunk lines; the list of wells per zone is listed on Figure 4. The TFS-10 Quarterly System Performance Summary Reports by Cardno which are included as Appendix G document the activities for work performed during 2015. Overall 17,086 pounds (equivalent of 2,848 gallons) of total petroleum hydrocarbons were removed with mostly operating Zones 5, 6, and 7 (excluding PCM-535A). Since August 2002, COT-ES has removed a cumulative total of 109,195 gallons (or 658,250 pounds) of free-product by SVE/AS at TFS-10. Appendix B contains apparent free product thickness charts per each TFS-10 remedial zone. These charts are based on the monthly free product measurements.

3.2 Price Service Center Remediation Activities

Remediation at Price Service Center consists of SVE. The system has three zones (A-C) which represents remediation wells on the same trunk lines; the list of wells per zone is listed on Figure 3. The Zones A-C were previously known as Legs 1-3; the numbers were converted to alphas to be specific to the PSC remedial system with TFS-10 remedial system zones being numeric. When in operation, only Zone A with soil vapor extraction wells R-017A, R-018A, and R-019A and air injection wells AIR-01 through AIR-04 were open. Zone C has been off since June 2006.

Zone B has been off since prior to April 2004. The Paragon Quarterly System Performance Summary Reports by Cardno are provided in Appendix H. A total of 222 pounds (or 37 gallons) of petroleum hydrocarbons was removed during 2015 through SVE. Due to low inlet concentrations, the SVE system was shut down on July 1, 2015 and will remain down for approximately 12 months to evaluate current site or rebound conditions. Since April 1995, COT-ES has removed a cumulative total of 119,270 gallons (or 715,618 pounds) of free-product by SVE at PSC.

3.3 Free Product Recovery by Hand Bailing

Manually bailed NAPL removal is documented in the 2015 TFS-10 Annual System Performance Summary report provided in Appendix G. In 2015, Cardno manually bailed a total of 56.25 gallons of free-product from the following wells:

- PCM-516A – 4.25 gallons
- WR-220A – 52 gallons

COT-ES has been voluntarily removing free product from monitor WR-220A beginning in November 2013 on a weekly basis resulting in a total of 142.25 gallons as of December 2015. Free product thickness charts are available in Appendix B. COT-ES will continue hand bailing efforts to lower free product levels in wells as necessary.

4.0 REFERENCES

Arizona Department of Environmental Quality, 2002, "Release Reporting and Corrective Action Guidance—Appendix H"

City of Tucson – Environmental Services (COT-ES), 2014, 2013 Annual Remediation Status and Groundwater Monitoring Report, November 3, 2014

City of Tucson – Environmental Services (COT-ES), 2015, Thomas O. Price Service Center (LUST File No. 0767.01-0767.05, ADEQ Facility No. 0-005160) Annual Status and Groundwater Monitoring Report (January 2013 through December 2013), January 14, 2015

HydroGeoChem (HGC), 1994, "Corrective Action Plan"

IT Corporation, 2001. "Corrective Action Plan Addendum"

SCS Engineers, 2002. "Corrective Action Plan Modifications", February 11, 2002

TABLES

Table 1
Free Product Thicknesses and Depths to Groundwater - March 2015
Thomas Price Service Center, City of Tucson

	Well ID	Measurement Date	GW Depth (feet below TOC) or Depth to GW/LPH Interface	Reference Point Correction Factor (ft)	Depth to Water[1] (ft bls)	Depth to FP (feet below TOC)	FP Thickness (feet)	Corrected Depth to Water[2] (feet below TOC)	Benchmark Elevation (ft amsl)	GW Elevation (ft amsl)
Shallow Zone Monitoring wells	PCM-506A	3/17/2015	102.92	0.86	103.78	NONE	0.00	103.78	2466.95	2363.17
	PCM-507A	3/16/2015	113.01	0.18	113.19	111.75	1.26	112.28	2477.20	2364.92
	PCM-508A	3/17/2015	106.42	0.47	106.89	NONE	0.00	106.89	2474.30	2367.41
	PCM-508B	3/16/2015	100.79	0.45	101.24	NONE	0.00	101.24	2474.30	2373.06
	PCM-509A	3/17/2015	103.02	0.48	103.50	NONE	0.00	103.50	2481.29	2377.79
	PCM-509B	3/17/2015	102.87	0.62	103.49	NONE	0.00	103.49	2481.29	2377.80
	PCM-510A	3/17/2015	102.88	0.34	103.22	NONE	0.00	103.22	2481.21	2377.99
	PCM-510B	3/16/2015	102.49	0.69	103.18	NONE	0.00	103.18	2481.21	2378.03
	PCM-511A	3/16/2015	103.01	0.41	103.42	103.00	0.01	103.41	2479.92	2376.51
	PCM-512A	*Not Measured.*		0.30	0.30				2480.53	
	PCM-516A	3/16/2015	114.67	0.54	115.21	114.50	0.17	115.09	2480.88	2365.79
	PCM-517A	3/17/2015	111.72	0.48	112.20	NONE	0.00	112.20	2479.28	2367.08
	PCM-534A	3/16/2015	112.98	0.31	113.29	111.41	1.57	112.16	2476.82	2364.66
	PCM-535A	3/16/2015	102.06	0.48	102.54	NONE	0.00	102.54	2475.30	2372.76
	R-012A	3/17/2015	102.62	0.72	103.34	NONE	0.00	103.34	2481.94	2378.60
	R-013A	3/17/2015	103.04	0.72	103.76	NONE	0.00	103.76	2482.28	2378.52
	R-016A	3/17/2015	102.43	0.49	102.92	NONE	0.00	102.92	2481.55	2378.63
	R-017A	3/16/2015	102.93	0.75	103.68	NONE	0.00	103.68	2482.22	2378.54
	R-018A	3/16/2015	102.48	0.65	103.13	NONE	0.00	103.13	2481.32	2378.19
	R-019A	3/16/2015	102.46	0.88	103.34	NONE	0.00	103.34	2481.35	2378.01
	R-020A	3/17/2015	102.21	0.68	102.89	NONE	0.00	102.89	2480.26	2377.37
	R-021A	3/17/2015	102.94	0.66	103.60	NONE	0.00	103.60	2482.58	2378.98
	R-022A	3/17/2015	102.41	0.88	103.29	NONE	0.00	103.29	2482.51	2379.22
	R-027A	3/16/2015	100.32	0.16	100.48	SHEEN	0.001	100.48	2474.92	2374.44
	R-028A	3/16/2015	98.86	0.30	99.16	98.61	0.25	98.98	2472.72	2373.74
	R-029A	3/16/2015	98.71	0.48	99.19	NONE	0.00	99.19	2472.57	2373.38
	R-030A	3/16/2015	101.34	0.70	102.04	NONE	0.00	102.04	2476.84	2374.80
	R-031A	3/16/2015	100.10	0.41	100.51	NONE	0.00	100.51	2475.04	2374.53
	R-032A	3/16/2015	99.73	0.77	100.50	NONE	0.00	100.50	2474.61	2374.11
	R-033A	3/16/2015	98.69	0.50	99.19	NONE	0.00	99.19	2472.61	2373.42
	R-034A	3/16/2015	107.49	0.54	108.03	NONE	0.00	108.03	2472.38	2364.35
	R-035A	3/16/2015	99.51	0.37	99.88	99.39	0.12	99.79	2473.79	2373.99
	R-036A	3/16/2015	99.85	0.67	100.52	NONE	0.00	100.52	2474.22	2373.70

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Thomas Price Service Center, City of Tucson

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Shallow Zone Monitoring wells	R-037A	3/16/2015	99.06	0.89	99.95	NONE	0.00	99.95	2473.96	2374.01
	R-044A	3/17/2015	104.72	0.02	104.74	NONE	0.00	104.74	2470.75	2366.01
	R-045A	3/17/2015	99.48	0.21	99.69	NONE	0.00	99.69	2471.91	2372.22
	R-046A	3/16/2015	104.41	0.41	104.82	NONE	0.00	104.82	2479.47	2374.65
	R-047A	3/16/2015	100.28	0.64	100.92	NONE	0.00	100.92	2474.61	2373.69
	R-048A	3/16/2015	98.98	1.17	100.15	NONE	0.00	100.15	2475.34	2375.19
	R-049A	3/16/2015	98.76	0.37	99.13	NONE	0.00	99.13	2473.55	2374.42
	R-050A	3/16/2015	99.02	0.39	99.41	NONE	0.00	99.41	2473.52	2374.11
	R-051A	3/16/2015	111.49	0.42	111.91	110.59	0.90	111.26	2476.18	2364.92
	R-098A	3/16/2015	103.70	0.25	103.95	NONE	0.00	103.95	2474.68	2370.73
	R-099A	3/16/2015	98.72	0.65	99.37	NONE	0.00	99.37	2474.31	2374.94
	WR-208A	3/17/2015	100.78	-0.32	100.46	NONE	0.00	100.46	2482.04	2381.58
	WR-209A	3/17/2015	104.06	-0.29	103.77	NONE	0.00	103.77	2482.27	2378.50
	WR-210A	3/17/2015	105.33	-0.74	104.59	NONE	0.00	104.59	2483.23	2378.64
	WR-211A	3/17/2015	103.86	-0.38	103.48	NONE	0.00	103.48	2481.47	2377.99
	WR-212A	3/16/2015	99.51	0.22	99.73	NONE	0.00	99.73	2473.63	2373.90
	WR-213A	3/17/2015	100.62	-0.13	100.49	NONE	0.00	100.49	2478.38	2377.89
	WR-214A	3/17/2015	109.32	-0.57	108.75	NONE	0.00	108.75	2483.28	2374.53
	WR-215A	3/16/2015	105.11	-0.87	104.24	NONE	0.00	104.24	2479.79	2375.55
	WR-219A	3/17/2015	104.77	0.66	105.43	NONE	0.00	105.43	2469.54	2364.11
	WR-220A	3/16/2015	113.65	0.60	114.25	110.84	2.81	112.23	2476.79	2364.57
	WR-221A	3/17/2015	116.17	0.41	116.58	NONE	0.00	116.58	2482.74	2366.16
	WR-222A	3/17/2015	94.51	0.39	94.90	NONE	0.00	94.90	2472.46	2377.56
	WR-223A	3/17/2015	108.72	0.41	109.13	NONE	0.00	109.13	2475.26	2366.13
	WR-224A	3/16/2015	100.37	0.12	100.49	NONE	0.00	100.49	2471.99	2371.50
	WR-225A	3/17/2015	121.85	1.07	122.92	NONE	0.00	122.92	2489.83	2366.91
	WR-295A	3/17/2015	103.53	0.61	104.14	NONE	0.00	104.14	2479.35	2375.21
	WR-296A	3/17/2015	102.86	0.99	103.85	NONE	0.00	103.85	2479.06	2375.21
	WR-297A	3/17/2015	103.29	0.41	103.70	NONE	0.00	103.70	2479.29	2375.59
	WR-298A	3/17/2015	103.15	0.39	103.54	NONE	0.00	103.54	2479.37	2375.83

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Thomas Price Service Center, City of Tucson

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Deep Zone Monitoring Wells	WR-216A	3/17/2015	119.65	-0.62	119.03	NONE	0.00	119.03	2481.67	2362.64
	WR-217A	3/17/2015	119.41	-0.49	118.92	NONE	0.00	118.92	2479.91	2360.99
	WR-218A	3/17/2015	119.88	-0.40	119.48	NONE	0.00	119.48	2478.03	2358.55
	WR-227A	3/17/2015	156.18	0.69	156.87	NONE	0.00	156.87	2470.98	2314.11
	WR-228A	3/17/2015	119.53	-0.49	119.04	NONE	0.00	119.04	2483.04	2364.00
	WR-229A	3/17/2015	120.03	-0.33	119.70	NONE	0.00	119.70	2472.11	2352.41
	WR-230A	3/17/2015	121.38	0.81	122.19	NONE	0.00	122.19	2489.72	2367.53
	WR-231A	3/17/2015	128.04	0.91	128.95	NONE	0.00	128.95	2476.64	2347.69
	WR-232A	3/17/2015	124.42	-0.61	123.81	NONE	0.00	123.81	2480.01	2356.20
	WR-233A	3/17/2015	148.22	0.57	148.79	NONE	0.00	148.79	2457.62	2308.83
	WR-235A	3/17/2015	149.72	0.84	150.56	NONE	0.00	150.56	2468.75	2318.19
	WR-295B	3/17/2015	117.88	0.41	118.29	NONE	0.00	118.29	2479.35	2361.06
	WR-296B	3/17/2015	117.05	0.73	117.78	NONE	0.00	117.78	2479.06	2361.28

[1] *Depth to water corrected to account for reference elevation offset*

[2] *Water level corrected to account for specific gravity of gasoline (sg=0.72).*

NM = not measured, ND = not detected, NS = Not sampled

FP = Free Product or Liquid Petroleum Hydrocarbon, GW - Groundwater elevation, TOC = top of casing

Table 2
PSC and TFS #10 Summary of Field Parameters - 2015
Thomas Price Service Center, City of Tucson

Well ID	Groundwater Zone	Date Sampled	DO (mg/L)	ORP (mV)	pH	SpC (mhos/cm)	Temp (C)
WR-216A	Deep	3/23/2015	7.15	129.2	5.95	757	24.04
WR-217A	Deep	3/24/2015	6.78	18.4	7.43	854	24.28
WR-218A	Deep	3/23/2015	5.63	150.8	7.32	836	25.32
WR-227A	Deep	3/25/2015	3.60	-77.3	7.64	1557	25.08
WR-228A	Deep	3/23/2015	5.06	82.4	9.13	378	24.85
WR-229A	Deep	3/26/2015	5.32	-41.5	9.92	377	27.34
WR-230A	Deep	3/24/2015	4.70	16.5	8.09	453	26.58
WR-231A	Deep	3/25/2015	4.33	56.7	9.10	456	24.50
WR-232A	Deep	3/23/2015	5.14	283.4	5.28	549	24.89
WR-233A	Deep	3/25/2015	4.27	14.1	7.63	192	23.46
WR-235A	Deep	3/25/2015	6.16	35.0	7.47	381	25.94
PCM-506A	Shallow	3/24/2015	7.23	110.8	7.70	755	25.09
PCM-508A	Shallow	3/19/2015	5.56	5.3	7.79	271	24.61
PCM-508B	Shallow	3/19/2015	6.11	-58.1	7.55	258	24.65
PCM-509A	Shallow	3/20/2015	6.17	48.5	7.79	858	25.26
PCM-509B	Shallow	3/20/2015	3.73	48.2	7.71	941	26.47
PCM-510A	Shallow	3/31/2015	5.35	104.4	7.68	702	25.30
PCM-510B	Shallow	3/31/2015	3.46	-76.8	6.49	806	26.32
PCM-512A	Shallow	3/25/2015	4.13	-143.9	7.02	782	26.64
PCM-517A	Shallow	3/25/2015	4.31	-82.1	7.52	224	21.92
PCM-535A	Shallow	3/19/2015	5.42	-90.1	7.55	368	22.91
R-012A	Shallow	3/19/2015	5.49	91.1	7.60	493	24.23
R-013A	Shallow	3/20/2015	3.22	-117.1	7.30	661	25.73
R-016A	Shallow	3/19/2015	4.57	156.7	7.40	407	24.88
R-017A	Shallow	3/20/2015	3.34	38.5	6.94	896	26.56
R-018A	Shallow	3/20/2015	3.17	-82.7	6.73	1158	27.12
R-019A	Shallow	3/20/2015	3.29	-98.7	6.74	760	25.50
R-020A	Shallow	3/20/2015	3.21	-15.0	6.97	273	25.84
R-021A	Shallow	3/19/2015	5.37	113.1	7.62	494	25.18
R-022A	Shallow	3/19/2015	5.34	161.9	7.60	501	25.17
R-029A	Shallow	3/18/2015	7.67	57.6	7.48	331	22.86
R-030A	Shallow	3/24/2015	5.40	-70.4	7.51	817	27.09
R-031A	Shallow	3/24/2015	5.18	45.9	7.40	694	25.43
R-032A	Shallow	3/24/2015	6.01	97.9	7.95	650	24.23
R-033A	Shallow	3/18/2015	4.52	-117.9	7.22	300	25.70
R-034A	Shallow	3/18/2015	3.30	-144.8	6.70	124	25.67

Table 2
PSC and TFS #10 Summary of Field Parameters - 2015
Thomas Price Service Center, City of Tucson

Well ID	Groundwater Zone	Date Sampled	DO (mg/L)	ORP (mV)	pH	SpC (mhos/cm)	Temp (C)
R-036A	Shallow	3/18/2015	3.52	-96.2	7.18	309	25.99
R-037A	Shallow	3/31/2015	4.32	-72.7	7.09	626	24.25
R-044A	Shallow	3/26/2015	7.20	115.8	6.93	838	25.62
R-045A	Shallow	3/26/2015	5.29	122.0	7.71	640	25.93
R-046A	Shallow	3/24/2015	5.82	64.9	7.62	724	23.03
R-048A	Shallow	3/18/2015	5.37	59.1	7.88	400	25.08
R-049A	Shallow	3/18/2015	6.08	93.4	7.58	691	23.87
R-050A	Shallow	3/18/2015	5.31	-53.1	7.37	332	26.01
R-099A	Shallow	3/18/2015	4.52	-150.9	7.35	677	25.01
WR-208A	Shallow	3/23/2015	5.95	159.1	7.02	991	26.99
WR-209A	Shallow	3/19/2015	4.79	144.0	7.64	469	24.57
WR-210A	Shallow	3/20/2015	3.55	-168.2	7.34	1111	25.02
WR-211A	Shallow	3/23/2015	7.79	163.4	7.45	196	19.70
WR-212A	Shallow	3/18/2015	4.53	-175.5	7.35	452	25.05
WR-213A	Shallow	3/23/2015	5.75	170.3	7.54	925	24.77
WR-214A	Shallow	3/23/2015	5.39	149.8	7.52	802	24.58
WR-215A	Shallow	3/24/2015	4.61	-178.2	7.43	795	23.62
WR-219A	Shallow	3/24/2015	4.62	25.8	7.39	1110	26.44
WR-221A	Shallow	3/25/2015	3.57	88.7	7.19	661	23.85
WR-222A	Shallow	3/25/2015	5.59	130.2	7.53	962	24.49
WR-223A	Shallow	3/24/2015	5.52	72.1	7.59	565	26.95
WR-224A	Shallow	3/18/2015	5.83	-154.2	7.50	459	24.87
WR-225A	Shallow	3/24/2015	6.10	-40.8	7.61	1099	26.72
WR-296A	Shallow	3/24/2015	5.84	-18.4	6.93	828	23.90
WR-298A	Shallow	3/24/2015	5.54	88.9	7.45	771	23.68

Table 3
Water Quality Analyses - BTEX Summary for 2015
Thomas O. Price Service Center, City of Tucson

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
AWQS		**5**	**1,000**	**700**	**10,000**	*94 (Tier 1)**
Shallow-Zone Monitoring Wells						
PCM-506A	3/24/15	<1	<1	<1	<2	<1
PCM-508A	3/19/15	<10	<10	<10	<20	**8930**
PCM-508B	3/19/15	<10	<10	51	22.8	**6870**
PCM-509A	3/20/15	<1	<1	<1	<2	<1
PCM-509B	3/20/15	<1	<1	<1	<2	**777**
PCM-510A	3/31/15	<1	<1	<1	<2	<1
PCM-510B	3/31/15	**28.8**	<25	135	374	**3940**
PCM-512A	3/25/15	**276**	<20	**1050**	1430	**9980**
PCM-517A	3/25/15	**5950**	14.2	208	62	**247**
PCM-517A	3/25/15	**4980**	12.8	230	55.7	**247**
PCM-535A	3/19/15	<1	<1	<1	<2	58.5
PCM-535A	3/19/15	<1	<1	<1	<2	60
R-012A	3/19/15	<10	<10	<10	<20	**5890**
R-013A	3/20/15	2.4	<1	<1	<2	**217**
R-013A	3/20/15	2.3	<1	<1	<2	**202**
R-016A	3/19/15	<2.5	<2.5	<2.5	<5	**799**
R-017A	3/20/15	<1	<1	<1	<2	53.7
R-018A	3/20/15	**139**	30.5	475	3200	**8320**
R-019A	3/20/15	**18.5**	3.5	293	93.7	**1030**
R-020A	3/20/15	<10	<10	<10	<20	**2490**
R-021A	3/19/15	<5	<5	<5	<10	**2230**
R-022A	3/19/15	<1	<1	<1	<2	<1
R-029A	3/18/15	<1	<1	<1	<2	<1
R-029A	3/18/15	<1	<1	<1	<2	<1
R-030A	3/24/15	**813**	**3240**	587	6230	**124**
R-031A	3/24/15	**1290**	**3060**	**928**	4380	**4650**
R-032A	3/24/15	**6.1**	<2.5	10.3	1770	**1100**
R-033A	3/18/15	<100	<100	<100	<200	**11600**
R-034A	3/18/15	<4	<4	<4	<8	**794**
R-036A	3/18/15	<1	<1	2.6	3.3	**420**
R-037A	3/31/15	<50	<50	133	176	**19400**
R-044A	3/26/15	<1	<1	<1	<2	<1
R-045A	3/26/15	<1	<1	<1	<2	<1

Table 3
Water Quality Analyses - BTEX Summary for 2015
Thomas O. Price Service Center, City of Tucson

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
AWQS		**5**	**1,000**	**700**	**10,000**	*94 (Tier 1)**
R-046A	3/24/15	<1	<1	<1	<2	78.5
R-048A	3/18/15	<1	<1	<1	<2	2
R-049A	3/18/15	<1	1.5	<1	2.3	<1
R-050A	3/18/15	**14.3**	7.7	509	963	28.5
R-099A	3/18/15	<1	<1	8.9	3.4	<1
WR-208A	3/23/15	<1	<1	<1	<2	<1
WR-209A	3/19/15	<1	<1	<1	<2	21.6
WR-210A	3/20/15	<1	<1	<1	<2	25.4
WR-211A	3/23/15	<1	<1	<1	<2	<1
WR-211A	3/23/15	<1	<1	<1	<2	<1
WR-212A	3/18/15	3.3	1.5	62.8	3.6	79.2
WR-213A	3/23/15	<1	<1	<1	<2	<1
WR-214A	3/23/15	<1	<1	<1	<2	<1
WR-215A	3/24/15	**72.3**	<20	334	358	**1750**
WR-215A	3/24/15	**68.4**	<20	335	352	**1650**
WR-219A	3/24/15	<1	<1	<1	<2	<1
WR-221A	3/25/15	<1	<1	<1	<2	<1
WR-222A	3/25/15	<1	<1	<1	<2	<1
WR-223A	3/24/15	<1	<1	<1	<2	**121**
WR-224A	3/18/15	<1	<1	11.2	2	<1
WR-225A	3/24/15	<1	<1	<1	<2	<1
WR-296A	3/24/15	<10	<10	<10	<20	**4350**
WR-298A	3/24/15	<10	<10	<10	<20	**4900**

Table 3
Water Quality Analyses - BTEX Summary for 2015
Thomas O. Price Service Center, City of Tucson

Sample ID	Sample Date	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
AWQS		**5**	**1,000**	**700**	**10,000**	*94 (Tier 1)**
Deep-Zone Monitoring Wells						
WR-216A	3/23/15	<1	<1	<1	<2	<1
WR-217A	3/24/15	<1	<1	<1	<2	<1
WR-218A	3/23/15	<1	<1	<1	<2	<1
WR-227A	3/25/15	<1	<1	<1	<2	38.3
WR-228A	3/23/15	<1	<1	<1	<2	<1
WR-229A	3/26/15	<1	<1	<1	<2	<1
WR-230A	3/24/15	<1	<1	<1	<2	<1
WR-231A	3/25/15	<1	<1	<1	<2	<1
WR-232A	3/23/15	<1	<1	<1	<2	<1
WR-233A	3/25/15	<1	<1	<1	<2	<1
WR-235A	3/25/15	<1	<1	<1	<2	<1

Notes:

µg/L = micrograms per liter, mg/L = milligrams per liter, NA = not analyzed, <0.5 = not detected above MDL

AWQS = Arizona Aquifer Water Quality Standard

Results in **bold** equal or exceed AWQS

*ADEQ UST Program Tier 1 Cleanup Standards - January 2015

Table 4
Summary of Select VOCs Analytical Results for 2015
Thomas Price Service Center, City of Tucson

Sample ID	Sample Date	1,2,4-Trimethylbenzene	1,2 Dibromoethane (EDB)	1,2-Dichloroethane	1,3,5-Trimethylbenzene	4-Methyl-2-pentanone (methyl Isobutyl ketone MIBK)	Isopropylbenzene (cumene)	Naphthalene	n-Butylbenzene	n-Propylbenzene (propylbenzene)	sec butylbenzene
AWQS		**NA**	**0.05***	**5**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Tier 1 Clean-up**		**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**	**NA**
Shallow-Zone Monitoring Wells											
WR-215A	3/24/2015	509	<20	<10	108	<200	21.9	262	<40	70.7	<40
WR-215A	3/24/2015	543	<20	<10	111	<200	24.8	263	<40	81.8	<40
WR-219A	3/24/2015	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2
WR-222A	3/25/2015	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2
WR-223A	3/24/2015	<2	<1	3.0	<2	<10	<1	<5	<2	<2	<2
Deep Zone Monitoring Wells											
WR-217A	3/24/2015	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2
WR-227A	3/25/2015	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2
WR-233A	3/25/2015	<2	<1	<0.5	<2	<10	<1	<5	<2	<2	<2

NOTES:

All standards and results are in micrograms per liter

All analyses conducted according to EPA Method 8260B.

NA = Not applicable NP - Not Provided.

<0.5 = not detected above the method detection limit (MDL)

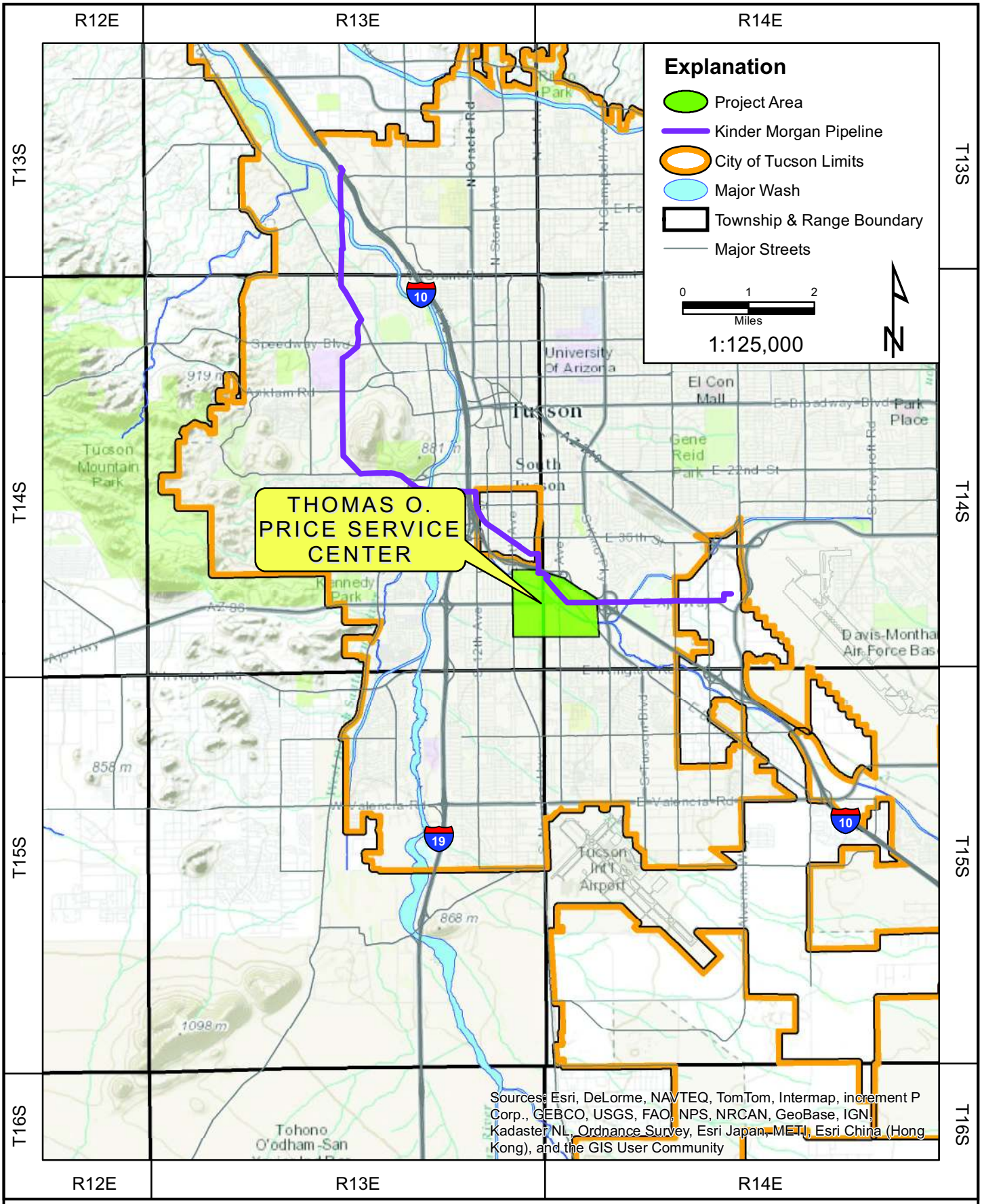
AWQS = Arizona Aquifer Water Quality Standard

Results in bold equal or exceed AWQS

*The select wells which were monitored for EDB at lower detection limits (<0.019 µg/L) by EPA Method 504.1 in 2013 were all non-detect for this compound. Should future analysis through EPA Method 8260B indicate EDB is rebounding then COT-ES will resume the additional analytical method for delineating this compound.

**ADEQ UST Program Tier 1 Cleanup Standards - January 2015

FIGURES



CITY OF TUCSON
ENVIRONMENTAL SERVICES

Figure 1
Location Map
Thomas O. Price Service Center

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/18/2016
File:	See Below

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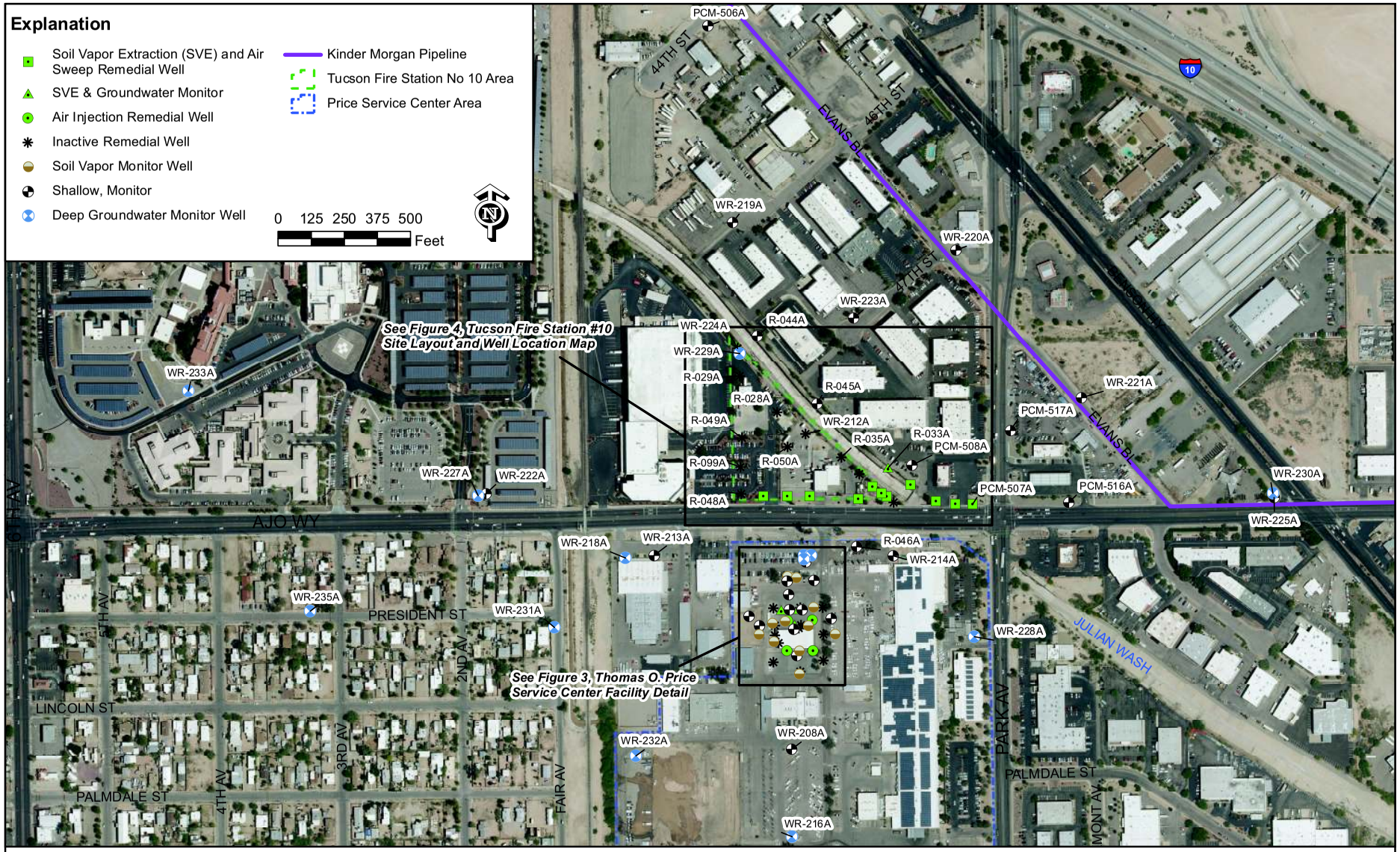

CITY OF TUCSON
ENVIRONMENTAL SERVICES

FIGURE 2
SITE MAP
PRICE SERVICE CENTER, TUCSON, AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/18/2016
File:	See Below

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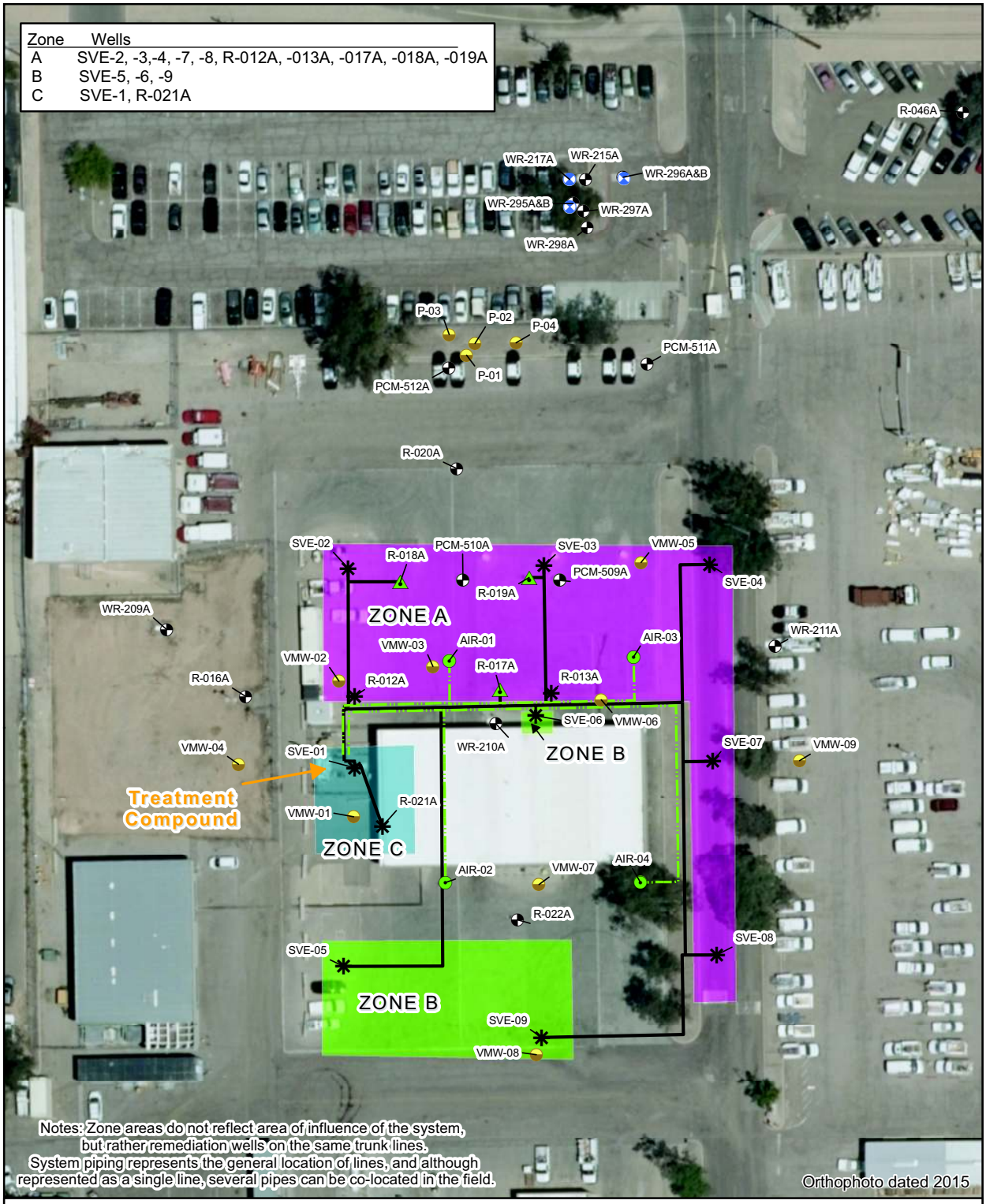


Explanation

- Soil Vapor Extraction (SVE) and Air Sweep Remedial Well
- SVE and Groundwater Monitoring Well
- Air Injection Remedial Well
- Inactive Remedial Well
- Soil Vapor Monitor Well
- Deep Groundwater Monitor Well
- Shallow Groundwater Monitor Well

SYSTEM PIPING

- Air Injection Line
- SVE Piping

SYSTEM ZONES

- ZONE A
- ZONE B
- ZONE C

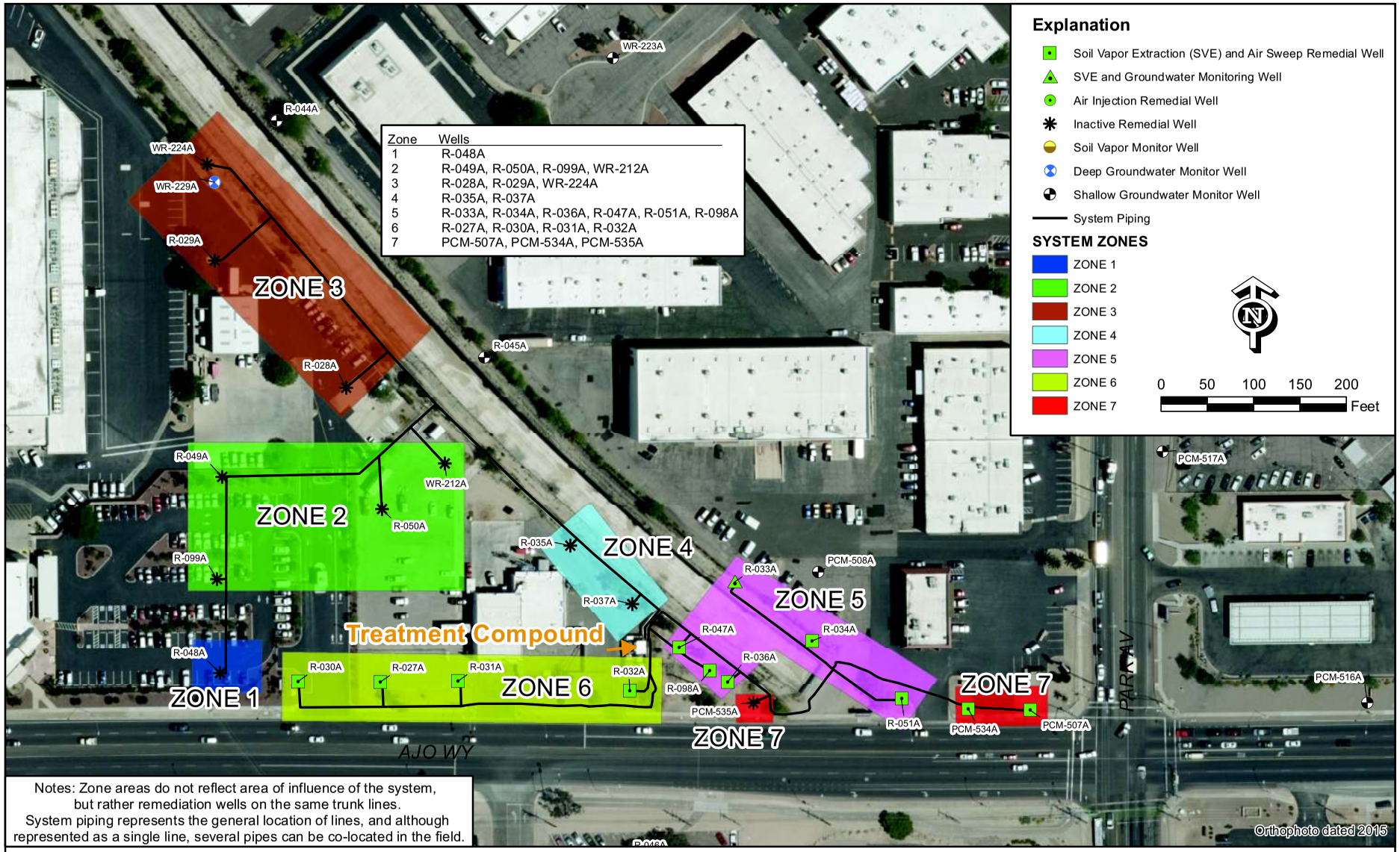
0 50 100 150 200 Feet

CITY OF TUCSON
ENVIRONMENTAL SERVICES

Figure 3
Thomas O. Price Service Center Facility Detail
Thomas O. Price Service Center, Tucson, AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/18/2016
File:	See Below

J:\GIS\PRICE\2015\PSCSYS.mxd



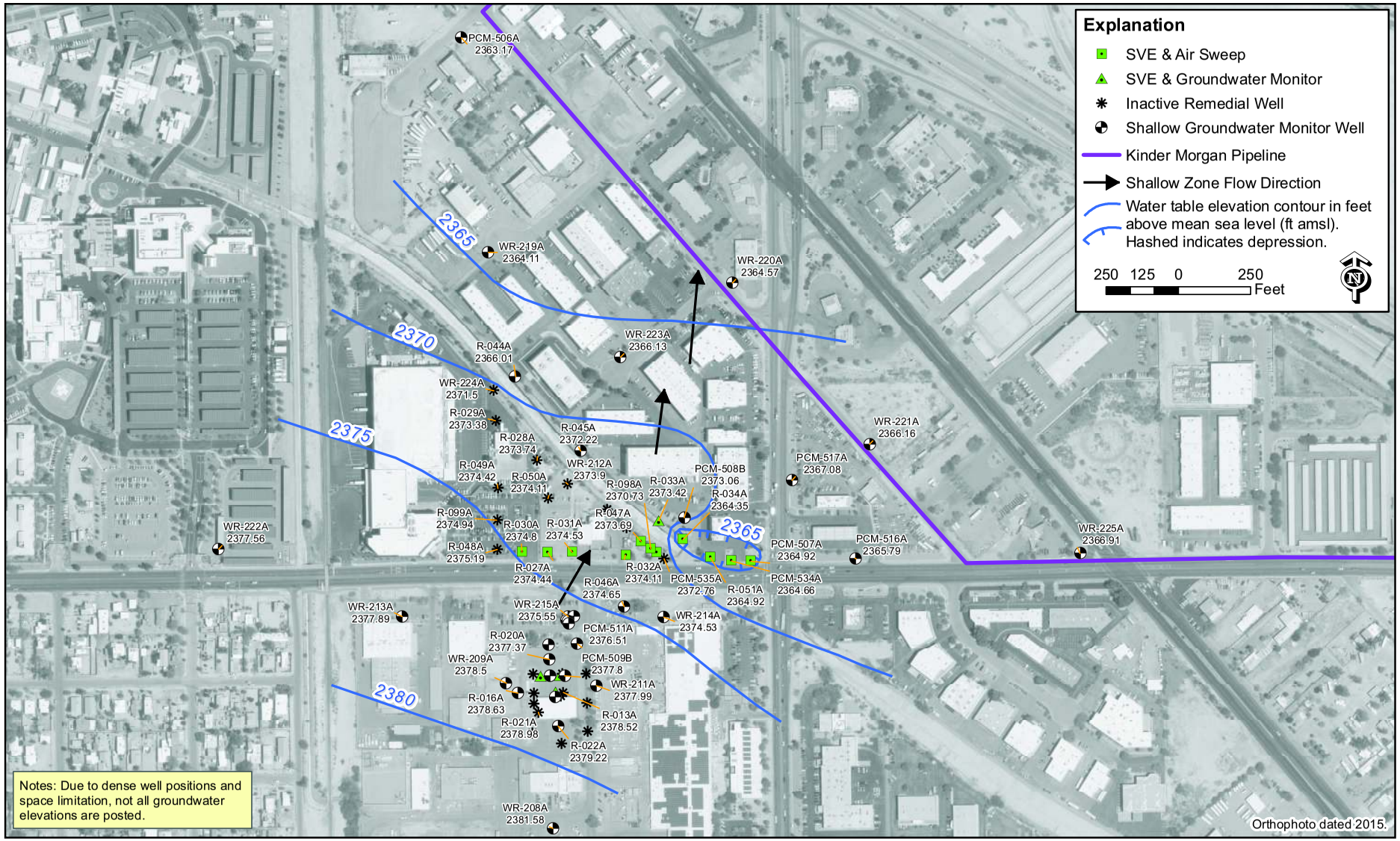
Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines. System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

CITY OF TUCSON
ENVIRONMENTAL SERVICES

Figure 4
TFS #10 Site Layout and Well Location Map
Thomas O. Price Service Center, Tucson, AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/18/2016
File:	See Below

J:\GIS\PRICE\2015\TFSSYS.mxd

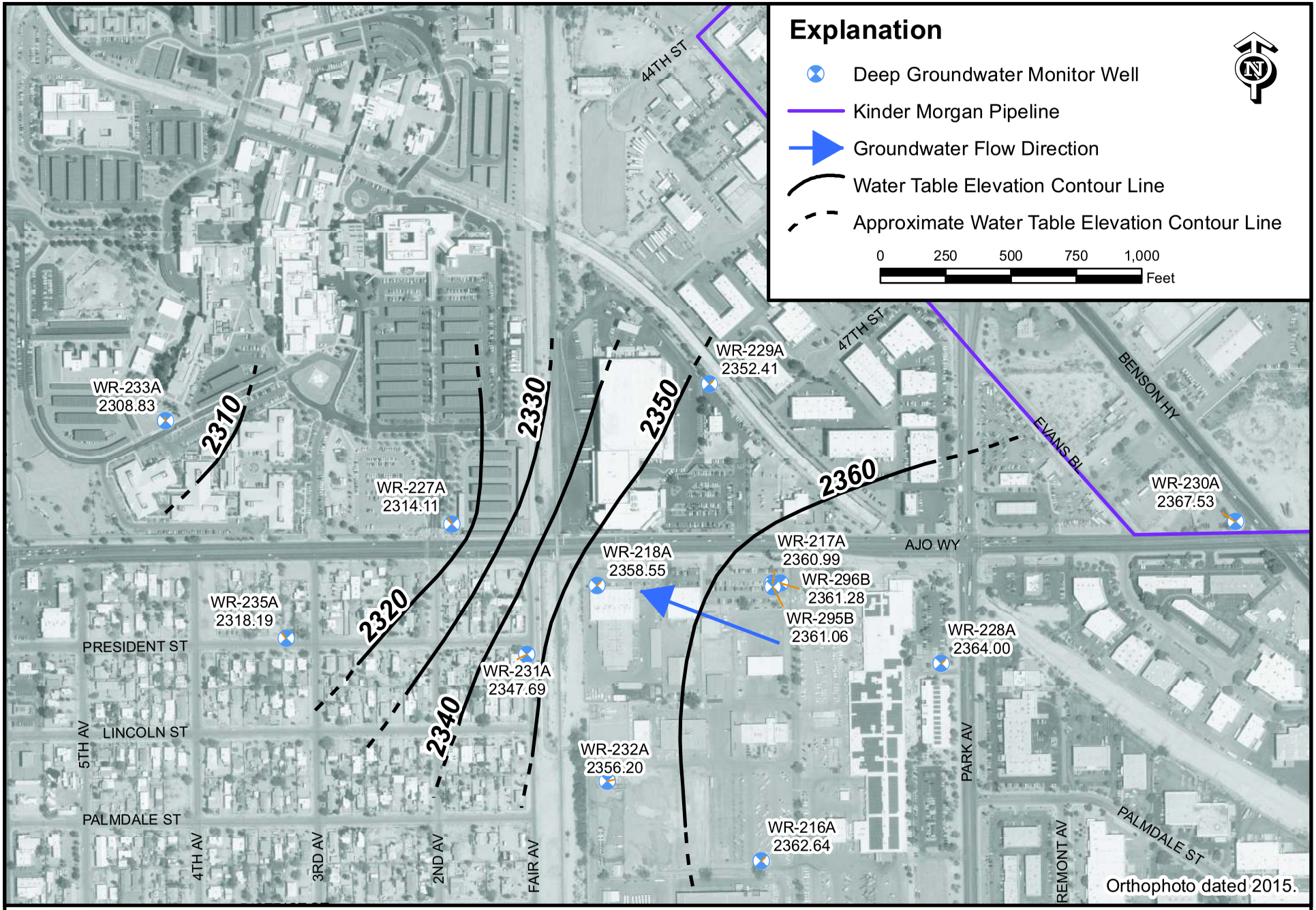


CITY OF TUCSON
ENVIRONMENTAL SERVICES

Figure 5
Shallow Zone Groundwater Potentiometric Surface Contour Map - March 2015
Thomas O. Price Service Center, Tucson, AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/22/2016
File:	See Below

J:\GIS\Price\2015\ShallowGWE2015.mxd

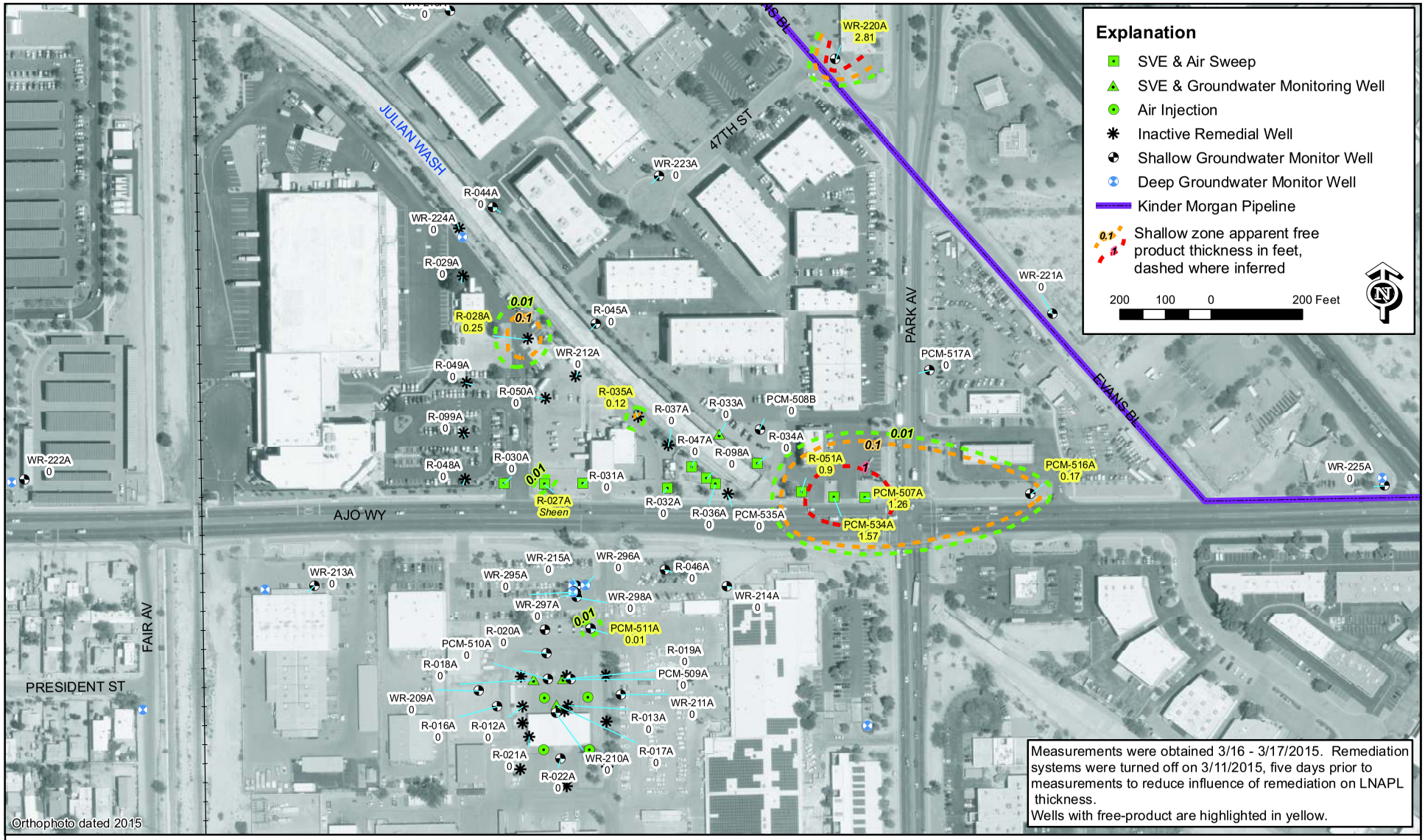


CITY OF TUCSON
ENVIRONMENTAL SERVICES

Figure 6
Deep Zone Groundwater Potentiometric Surface Contour Map - March 2015
Thomas O. Price Service Center, Tucson, AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/21/2016
File:	See Below

J:\GIS\Price\2015\DeepGWE2015.mxd



CITY OF TUCSON
ENVIRONMENTAL SERVICES

Figure 7
Shallow Zone Free Product Thickness Map, March 2015
Thomas O. Price Service Center, Tucson, AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	4/1/2015
File:	See Below

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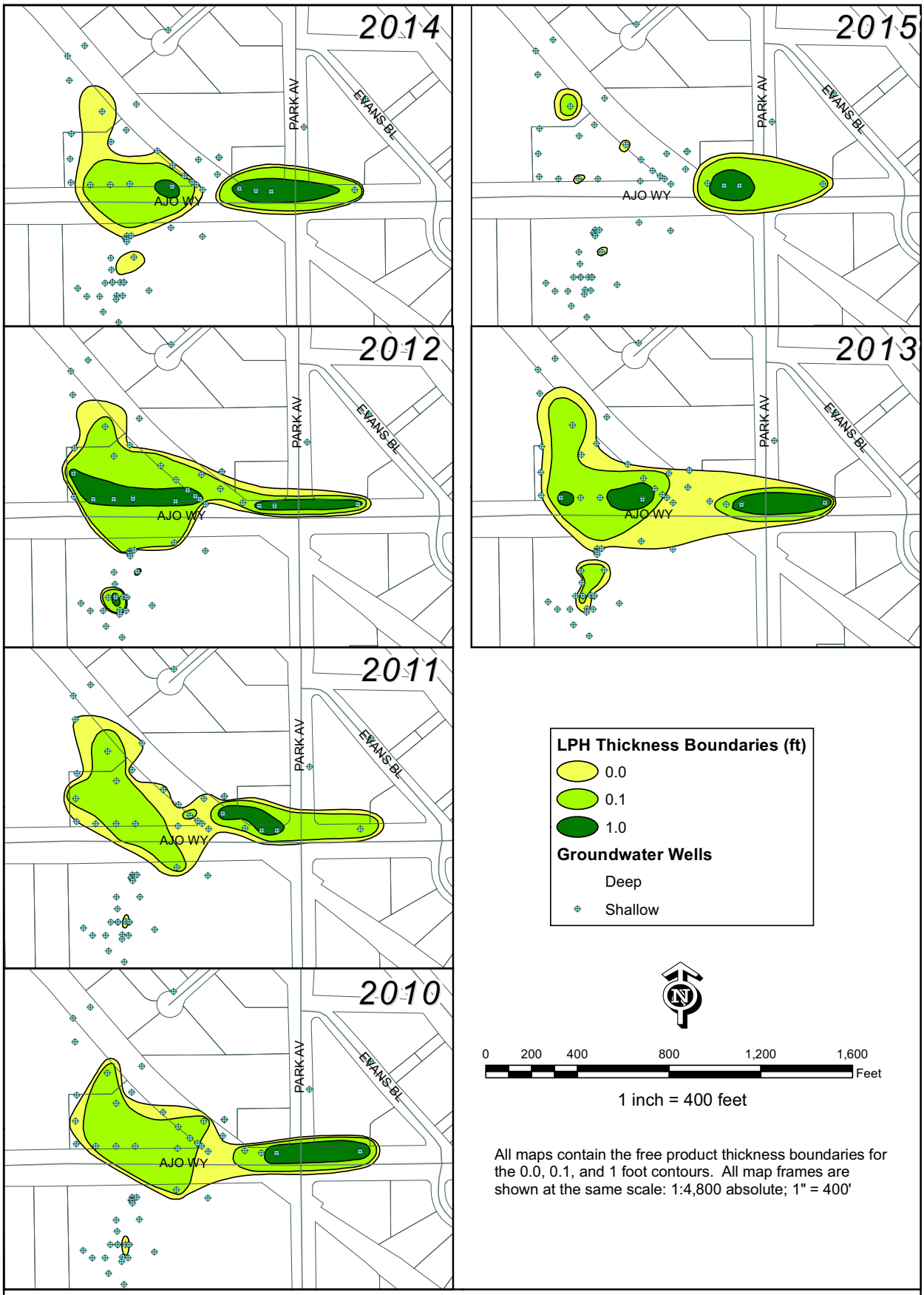

All maps contain the free product thickness boundaries for the 0.0, 0.1, and 1 foot contours. All map frames are shown at the same scale: 1:4,800 absolute; 1" = 400'

CITY OF TUCSON
ENVIRONMENTAL SERVICES

Figure 8
Free Product Thickness Maps, Years 2010 - 2015
Thomas O. Price Service Center, Tucson AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/22/2016
File:	See Below

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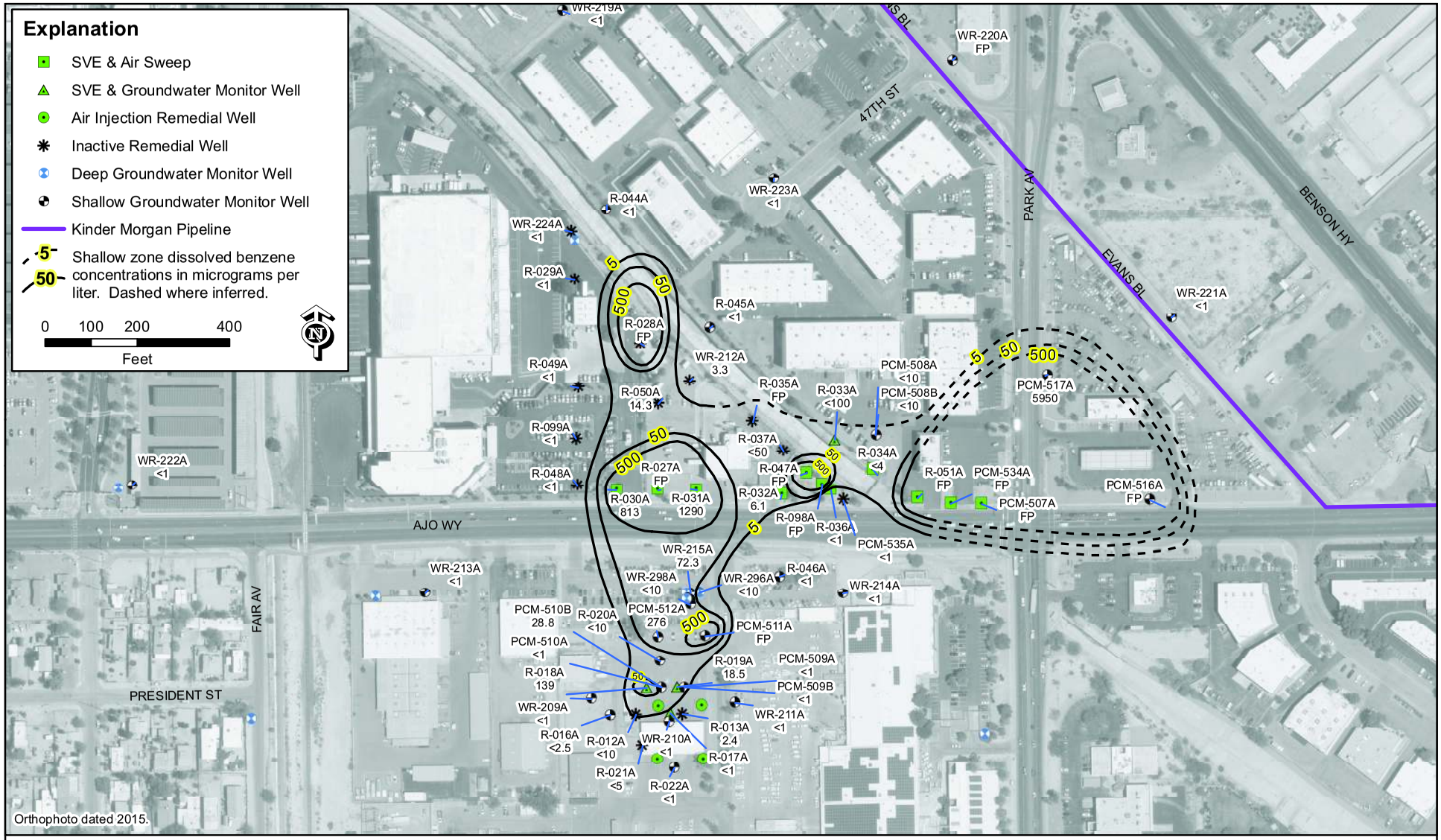

CITY OF TUCSON
ENVIRONMENTAL SERVICES

Figure 9
Shallow Groundwater Zone Dissolved Benzene Concentrations - March 2015
Thomas O. Price Service Center, Tucson AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/18/2016
File:	See Below

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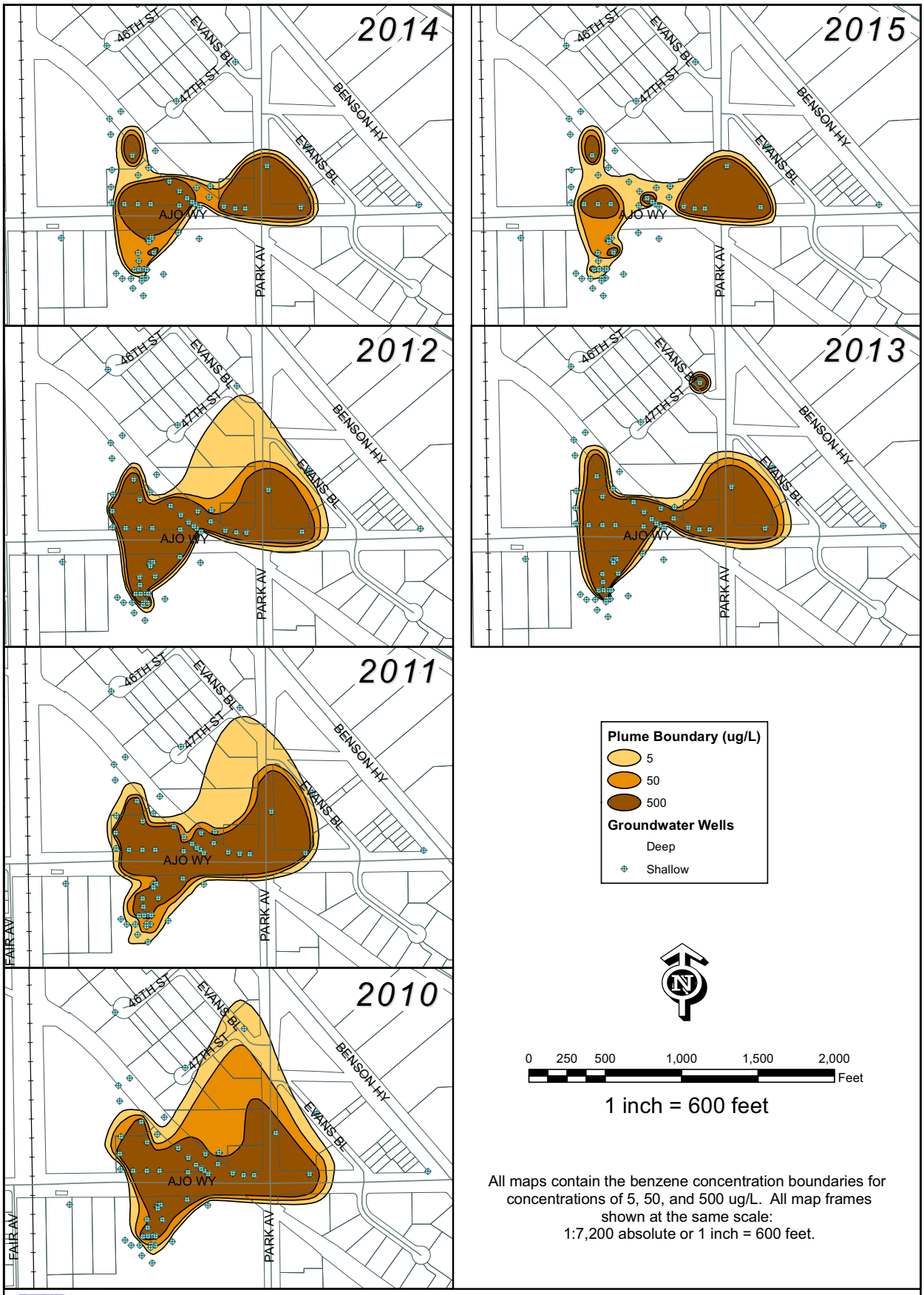

All maps contain the benzene concentration boundaries for concentrations of 5, 50, and 500 ug/L. All map frames shown at the same scale:
1:7,200 absolute or 1 inch = 600 feet.

CITY OF TUCSON
ENVIRONMENTAL SERVICES

FIGURE 10
BENZENE CONCENTRATION MAP, YEARS 2010 - 2015
THOMAS O. PRICE SERVICE CENTER, TUCSON AZ

Drawn By:	LE
Checked:	RB
Approved:	Cardno
Date:	3/21/2016
File:	See Below

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APPENDIX A

ADEQ UST Program Tier 1 Cleanup Standards

Arizona Department of Environmental Quality UST Program

Tier 1 Cleanup Standards- Petroleum Products

January 2015

COMPOUND OF CONCERN	Aquifer Water Quality Standard (µg/L)	Residential SRLs (mg/Kg)			Non-Residential SRL(mg/Kg)	2007 spreadsheet minimum GPL (mg/Kg)
		Carcinogenic School 10^{-6}	Carcinogenic Residential 10^{-5}	non-carcinogenic		
1,3-Butadiene		0.058	0.58		1.2	
1,2-Dibromoethane (EDB)	0.05	0.029	0.29		0.63	
1,2-Dichloroethane (DCA)	5	0.28	2.8		6.0	0.23
1,2,4-Trimethylbenzene				52	170	
1,3,5-Trimethylbenzene				21	70	
Acenaphthene				3700	29000	
Anthracene				22000	24000	
Benz[a]anthracene		0.69	6.9		21	
Benzene	5	0.65			1.40	0.70
Benzo[a]pyrene	0.2	0.069	0.6		2.1	
Benzo[b]fluoranthene		0.69	6.9		21	
Benzo[k]fluoranthene		6.9	69		210	
n-Butylbenzene				240	240	
sec-Butylbenzene				220	220	
tert-Butylbenzene				220	220	
Carbon disulfide		360	360		720	
Chrysene		68	680		2000	
Cumene (isopropylbenzene)				92	92	
Cyclohexane				140	140	
Cyclohexanone		310000	310000		1,000,000	
Dibenz[a,h]anthracene		0.069	0.69		2.1	
Dicyclopentadiene				0.54	1.8	
Ethylbenzene	700			400	400	82*
Fluoranthene		2300	2300		22000	
Fluorene				2700	26000	
n-Hexane				110	110	
Indeno[1,2,3-c,d]pyrene		0.69	6.9		21	

Methyl ethyl ketone				23000	34000	
Methyl isobutyl ketone				5300	17000	
Methyl tert-butyl ether (MTBE)	94**	32	320		710	
Methylcyclohexane				230	230	
Naphthalene				56	190	
n-Propylbenzene				240	240	
Pyrene				2300	29000	
Tetraethyl lead				0.0061	0.062	
Toluene	1000			650	650	159*
Xylenes (total)	10000			270	420	31*
Other Organics						
1,1-Biphenyl				350	350	
Carbazole		27	270		860	
2-Methylphenol (a-creosol)				3100	31000	
3-Methylphenol				3100	31000	
4-Methylphenol				310	3100	
Styrene	100			1500	1500	45
TCE	5	3.0	30	17	65	0.76
PCE	5	0.51	5.1		13	0.80
Inorganics						
Antimony	6	31	31		410	35
Arsenic	50 (MCL is 10)	10	10		10	290
Beryllium	4	150	150		1900	23
Cadmium	5	39	39		510	29
Lead	50	400	400		800	290
Mercury	2	23	23		310	12
Molybdenum		390	390		5100	
Selenium	50	390	390		5100	290
Vanadium		78	78		1000	

School: specific for future school or childcare facilities or known human carcinogens

Residential: all residential uses other than a school

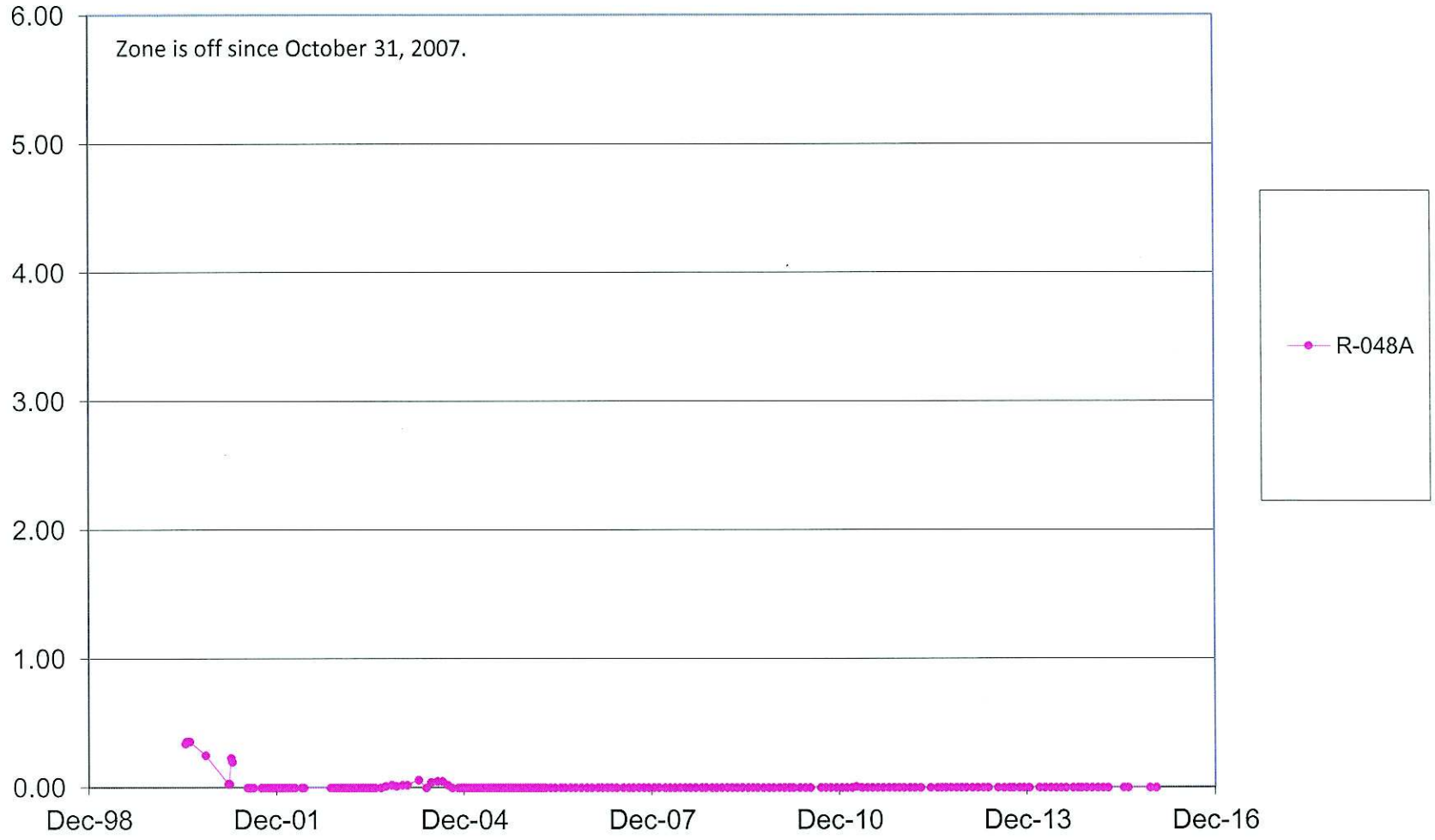
Groundwater Protection Levels; the lower of the minimum GPL or (the saturation limit*)

** MTBE- 94 ug/L is Tier 1 standard if no drinking water wells are threatened or impacted

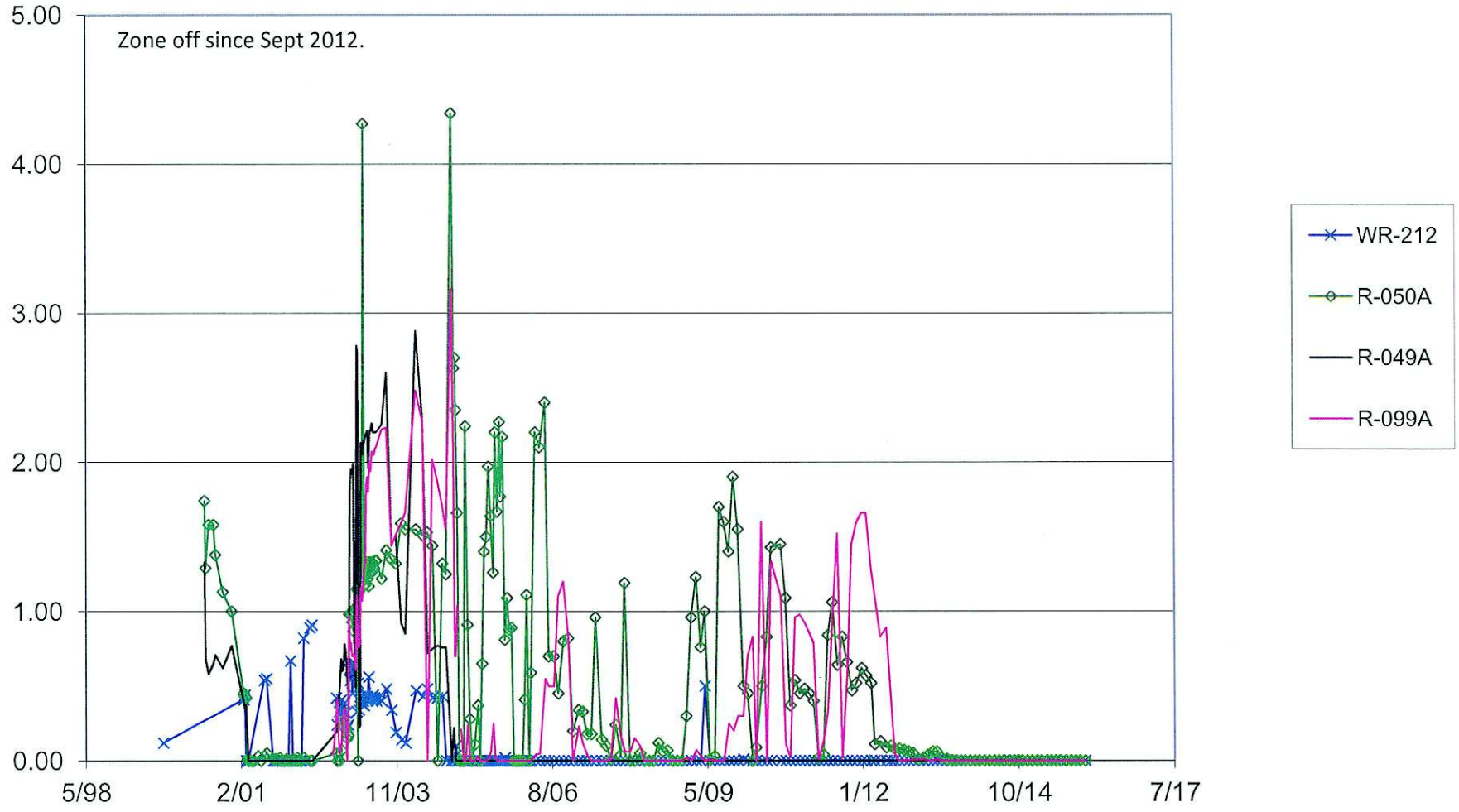
APPENDIX B

Apparent Product Thickness Charts

TFS Remediation Area
Zone 1 Apparent Product Thickness



TFS Remediation Area
Zone 2 Apparent Product Thickness



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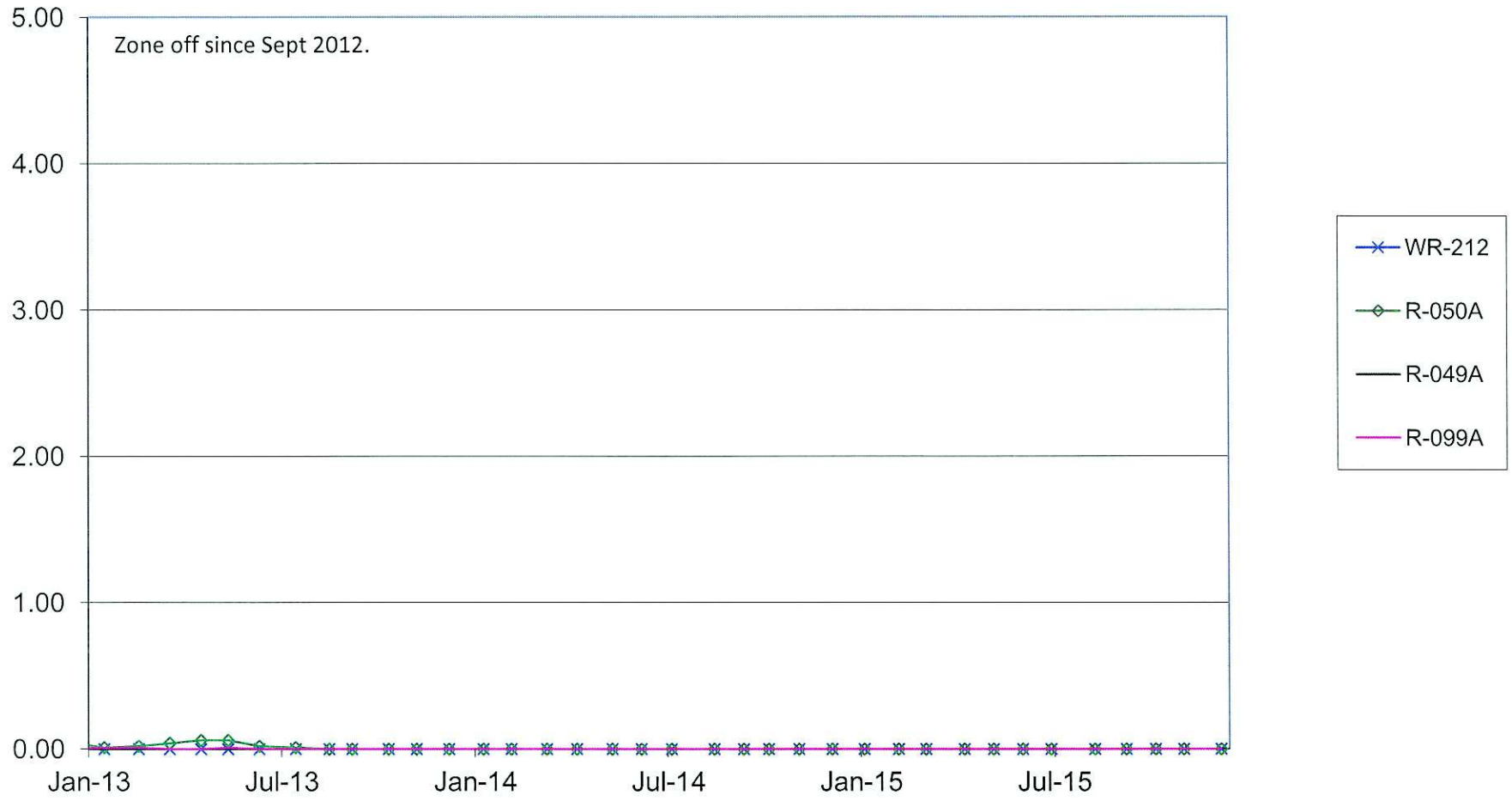
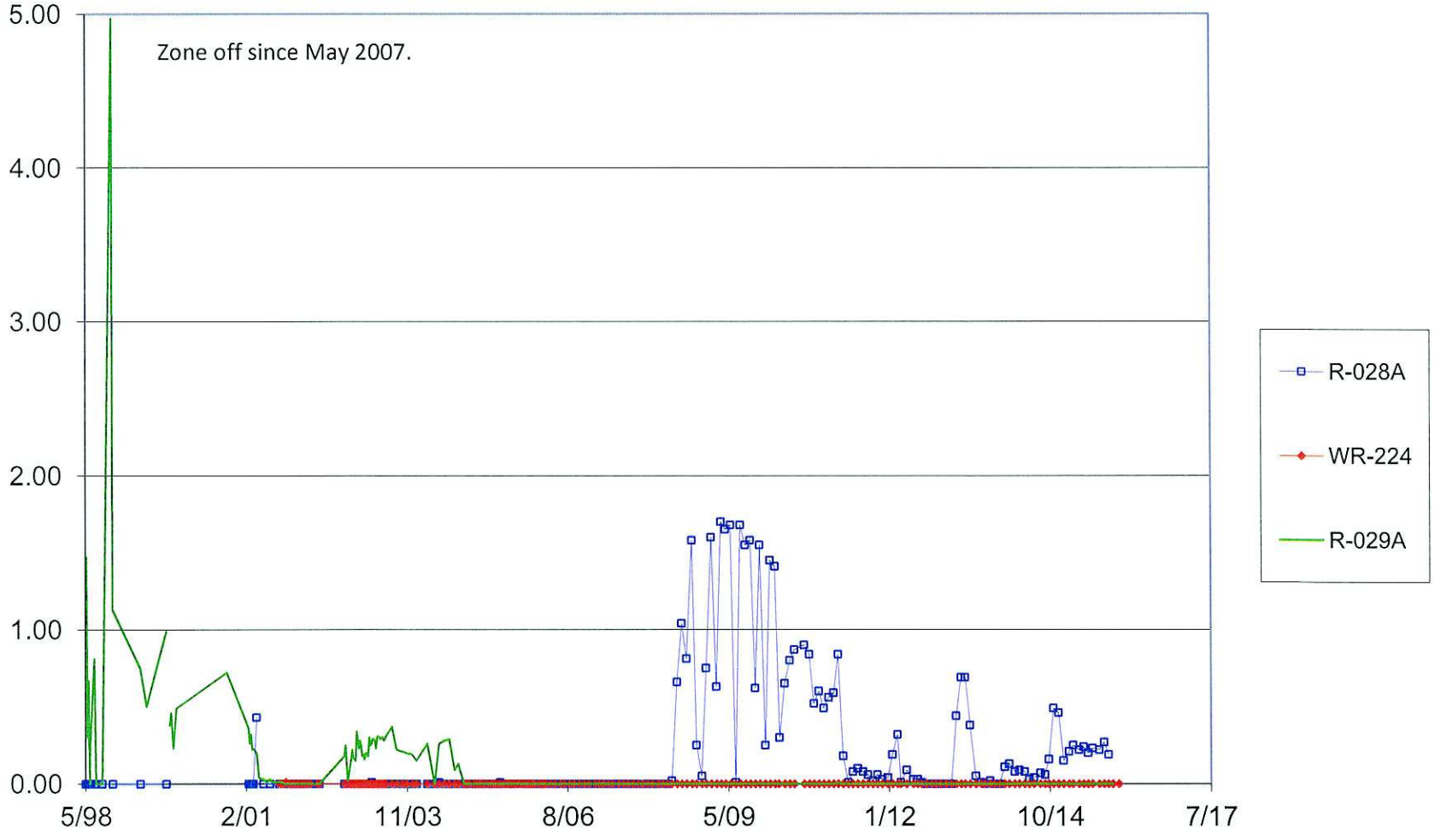
TFS Remediation Area
Zone 2 Apparent Product Thickness (last 3 years)

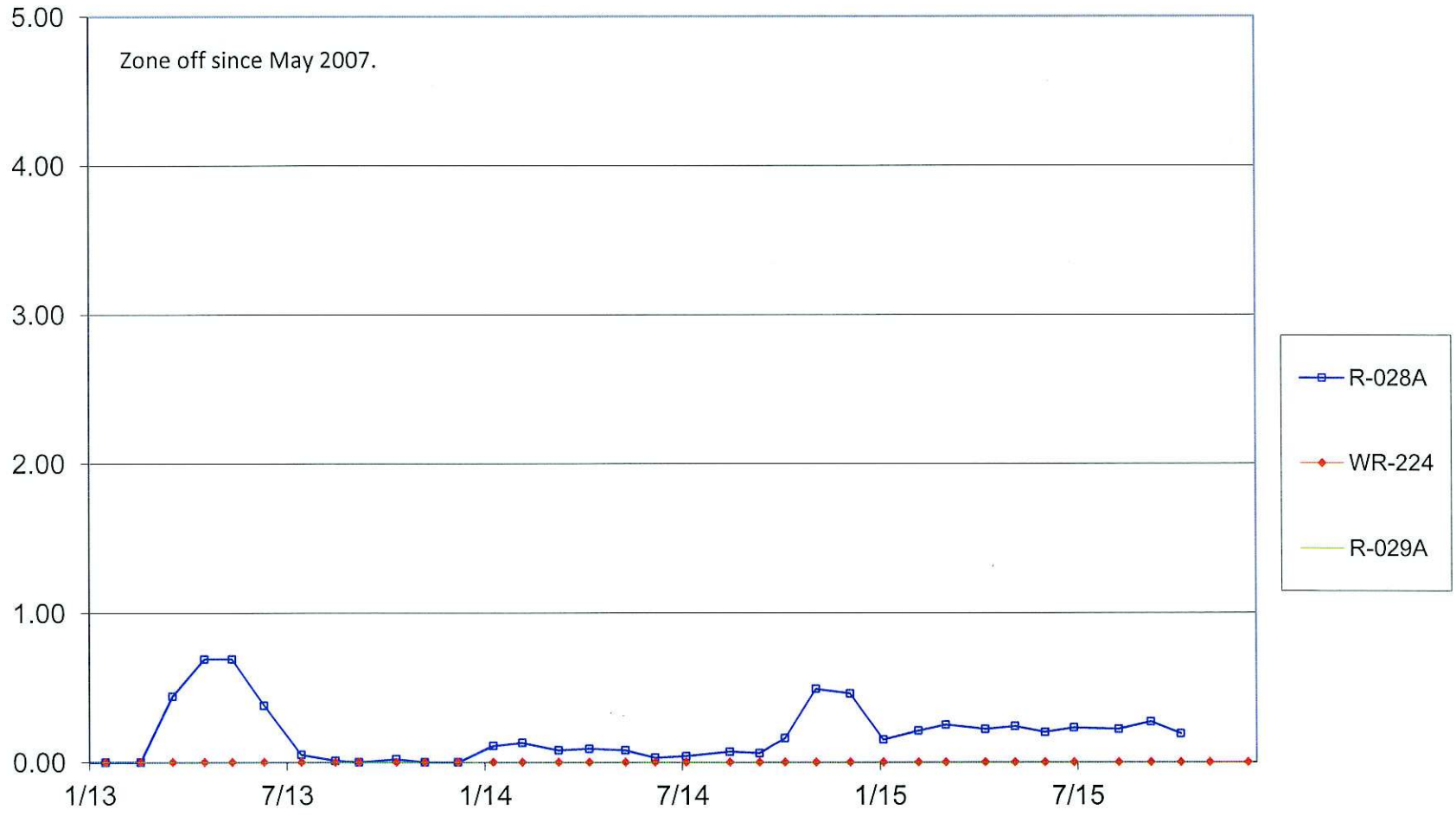


Free product has not been detected in R-049A since 2004, and in WR-212A since Dec 2009.

TFS Remediation Area
Zone 3 Apparent Product Thickness

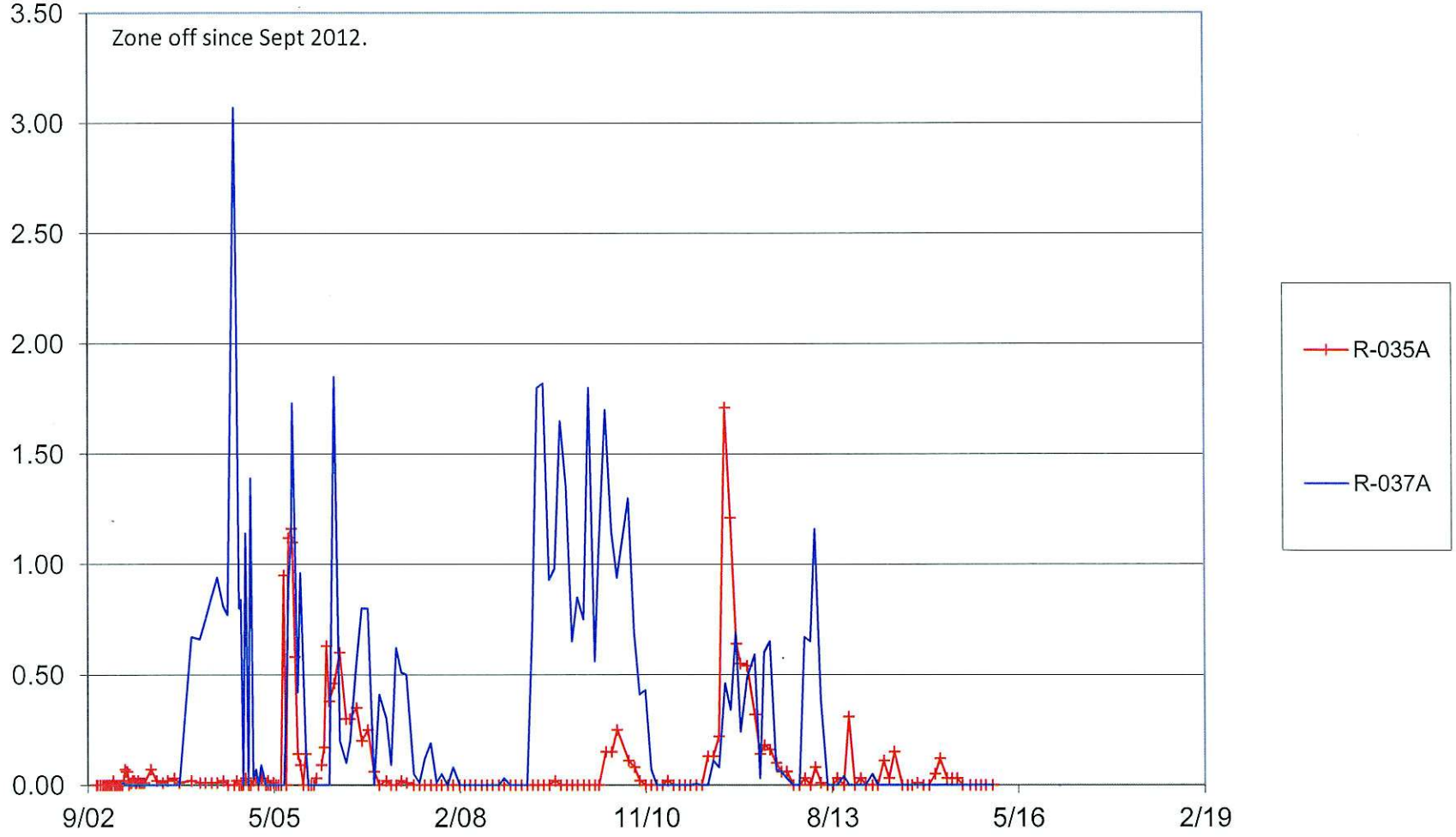


TFS Remediation Area
Zone 3 Apparent Product Thickness (last 3 years)



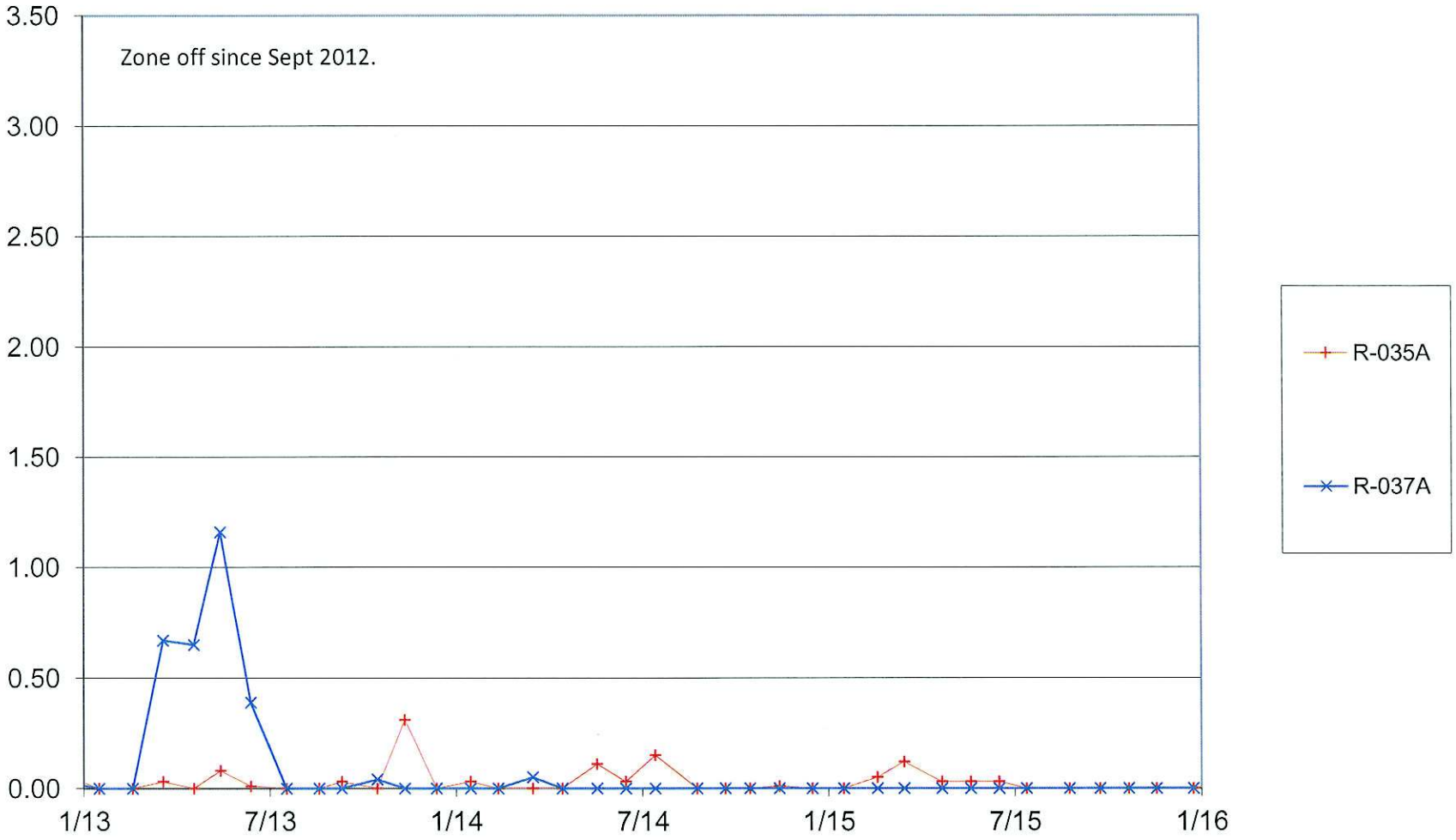
Free product has not been detected in WR-224A since 2001. Except for a minor detection of sheen in March 2011, free product has not been detected in R-029A since Sept 2004.

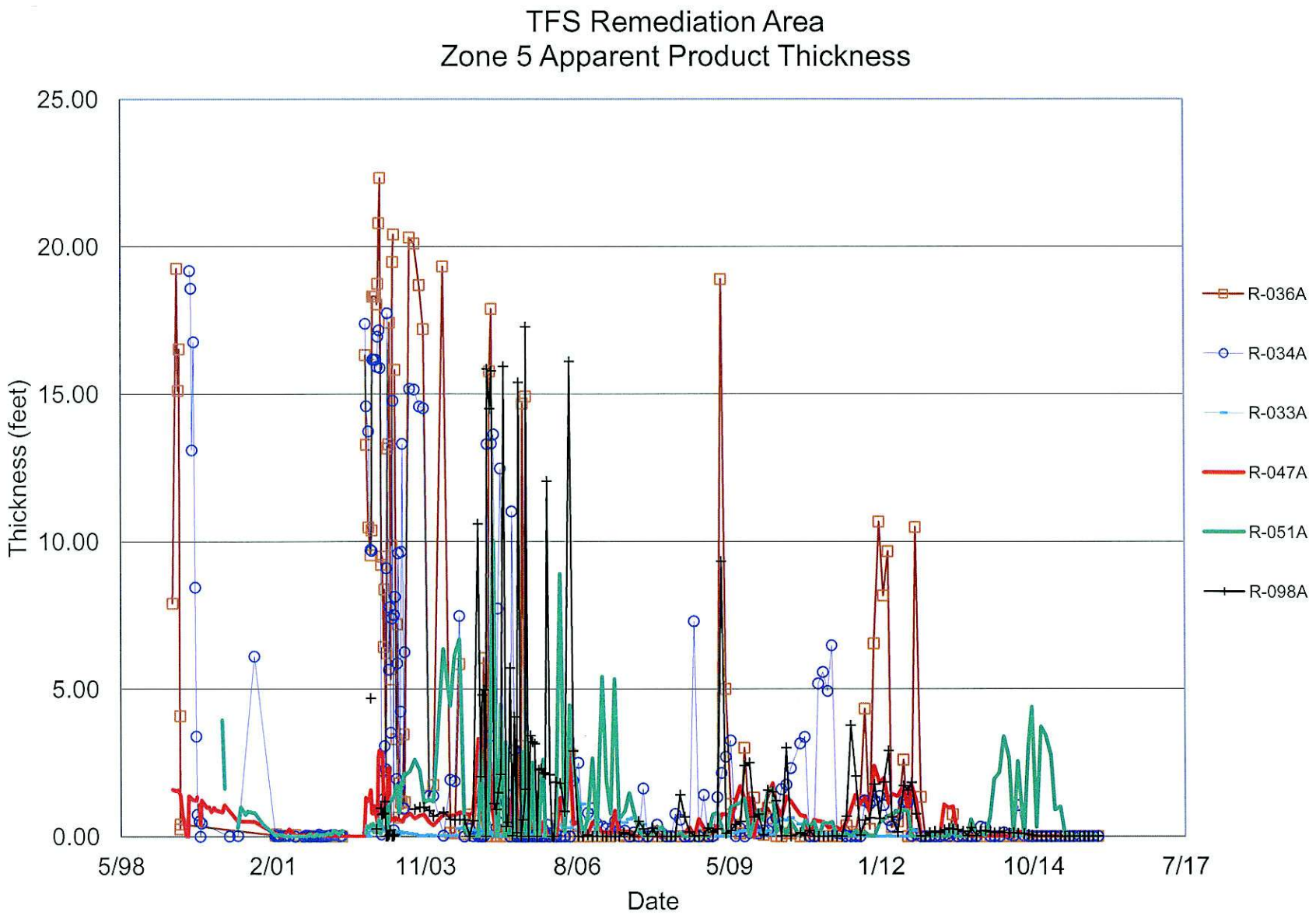
TFS Remediation Area
Zone 4 Apparent Product Thickness



S:\EMCOMMON\PSC_TFS10\Well_System_Info\Groundwater_Data\App A tables WL and FP Rec Dat2014.xls

TFS Remediation Area
Zone 4 Apparent Product Thickness (last 3 years)





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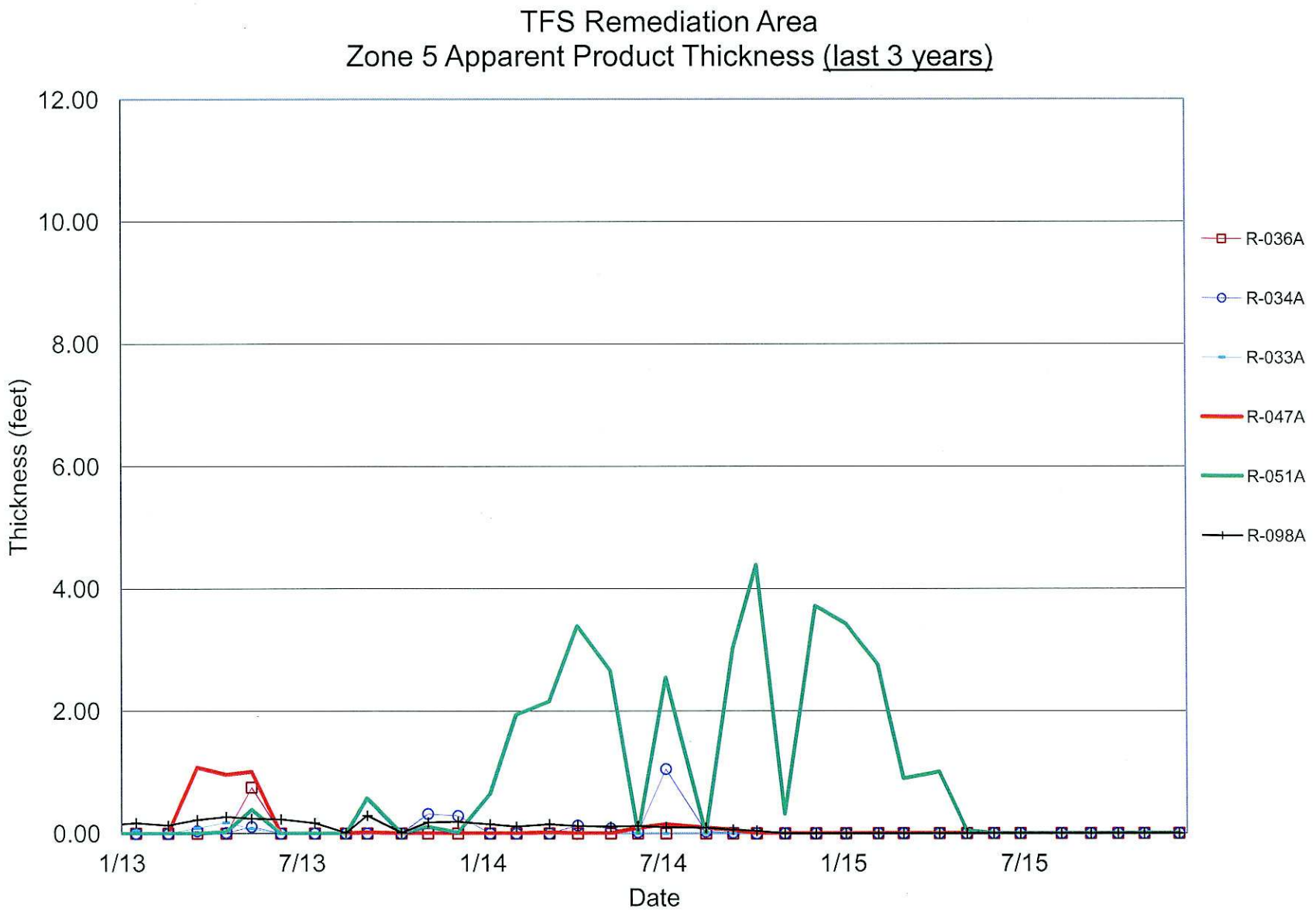
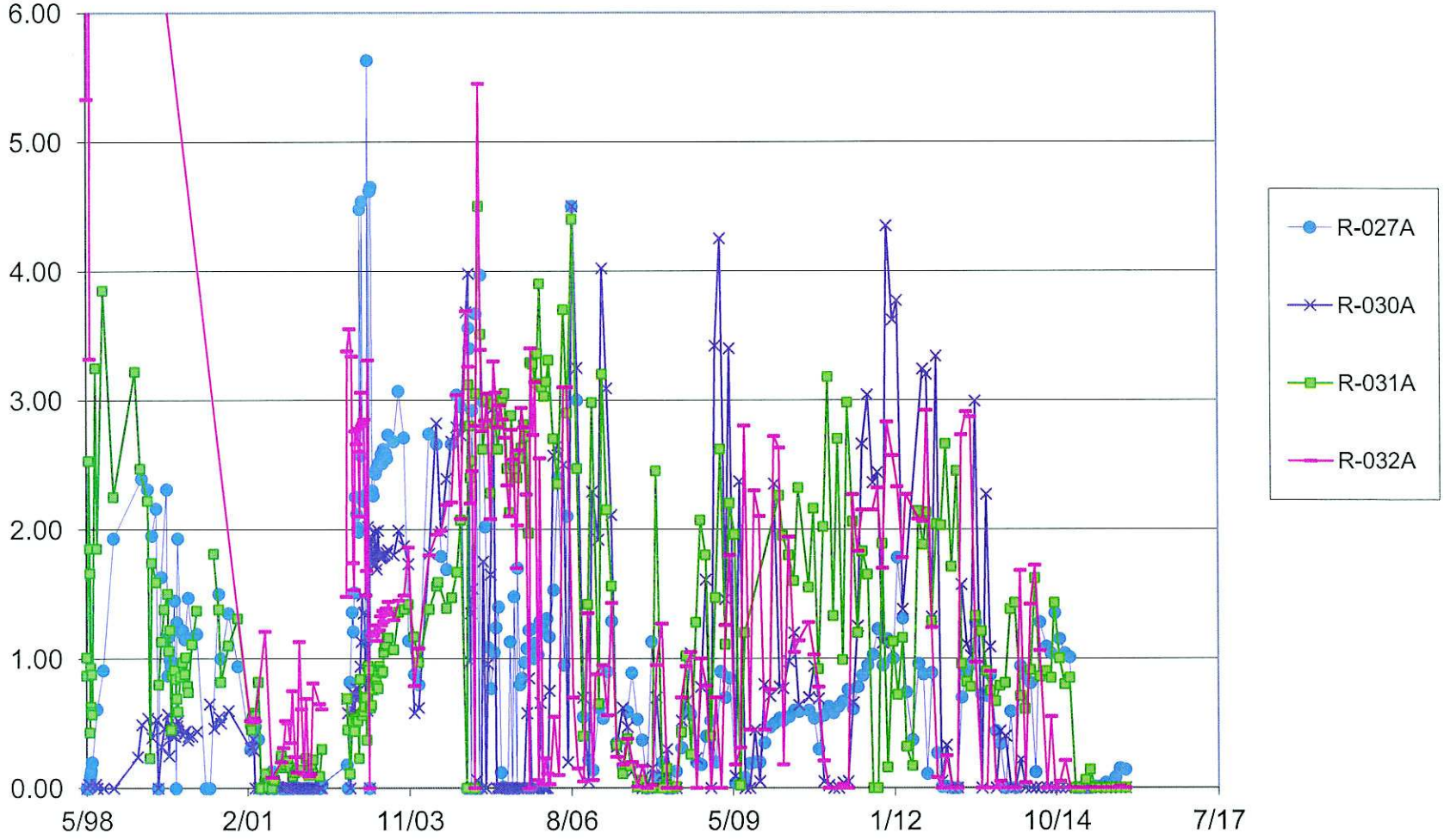
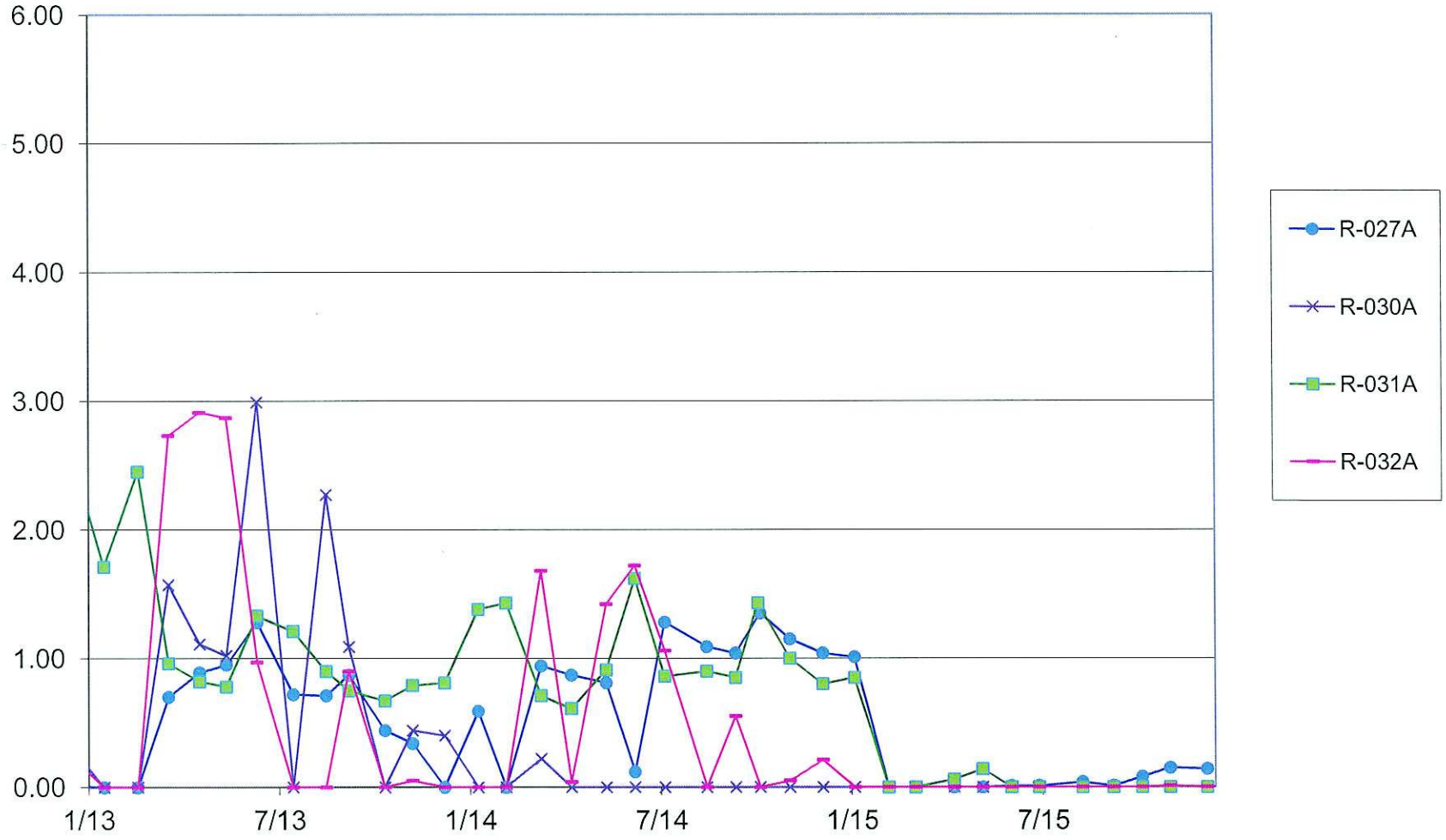


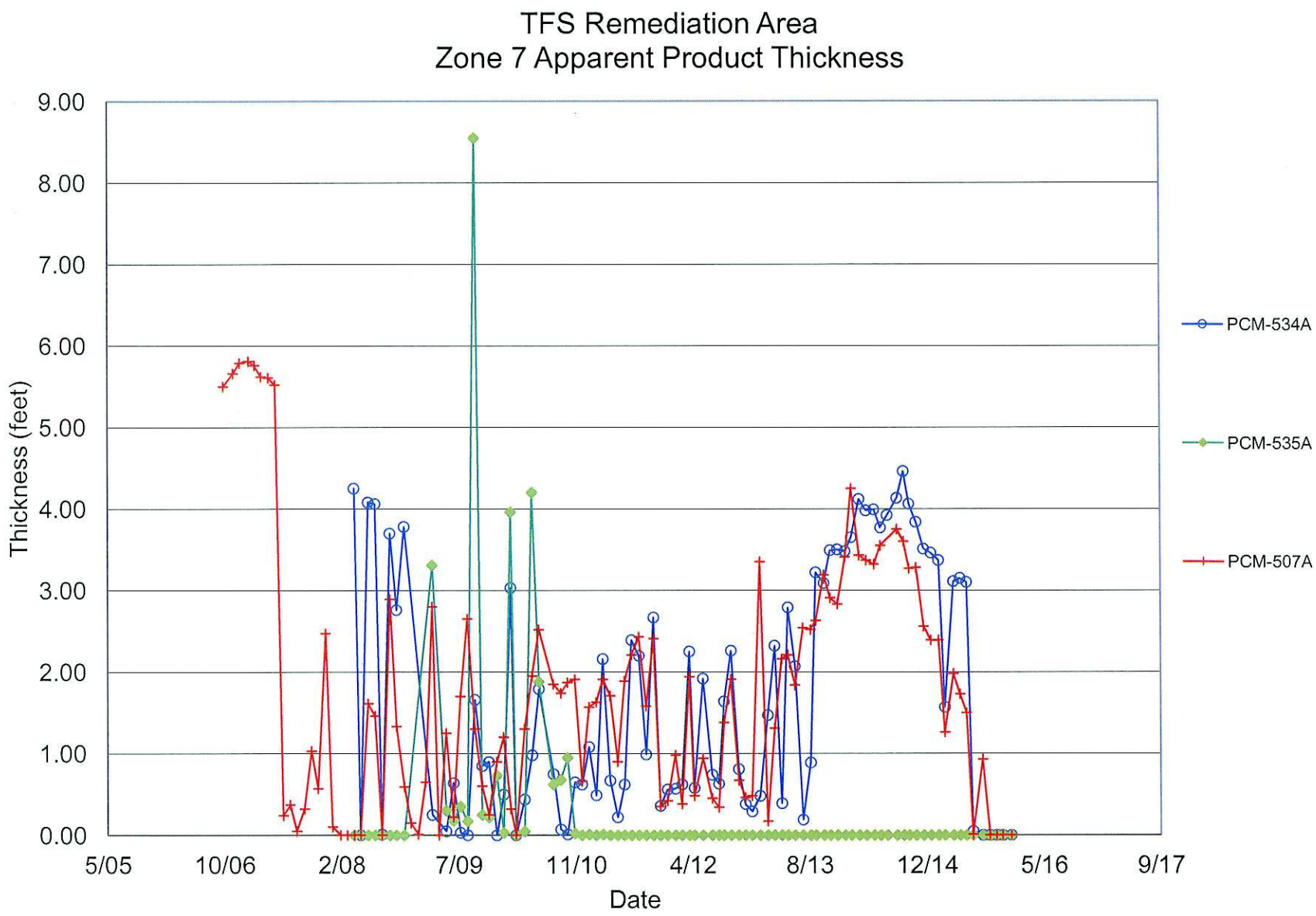
S:\EMCOMMON\PSC_TFS10\Well_System_Info\Groundwater_Data\App A tables WL and FP Rec Dat2014.xls

TFS Remediation Area
Zone 6 Apparent Product Thickness



TFS Remediation Area
Zone 6 Apparent Product Thickness (last 3 years)





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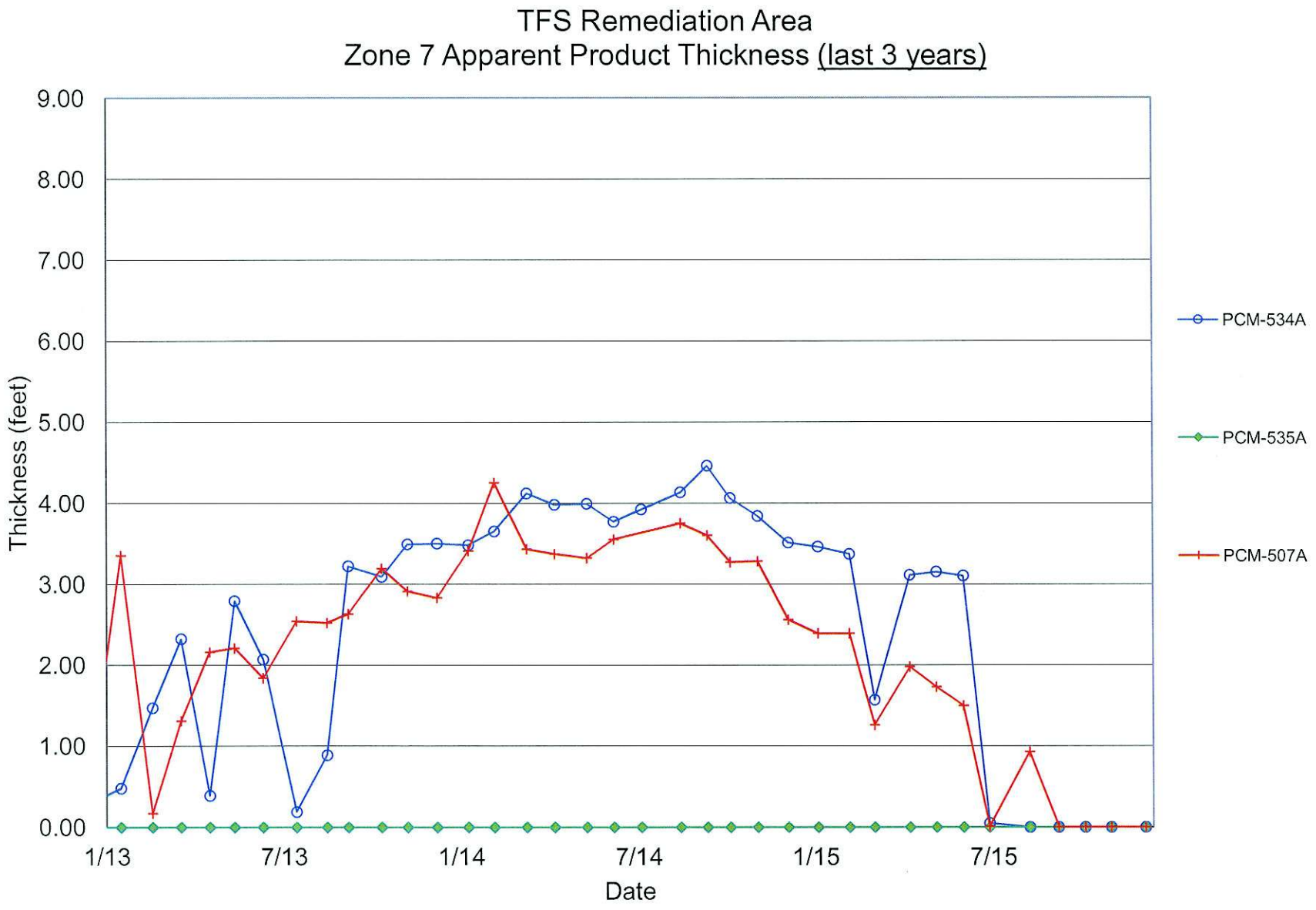
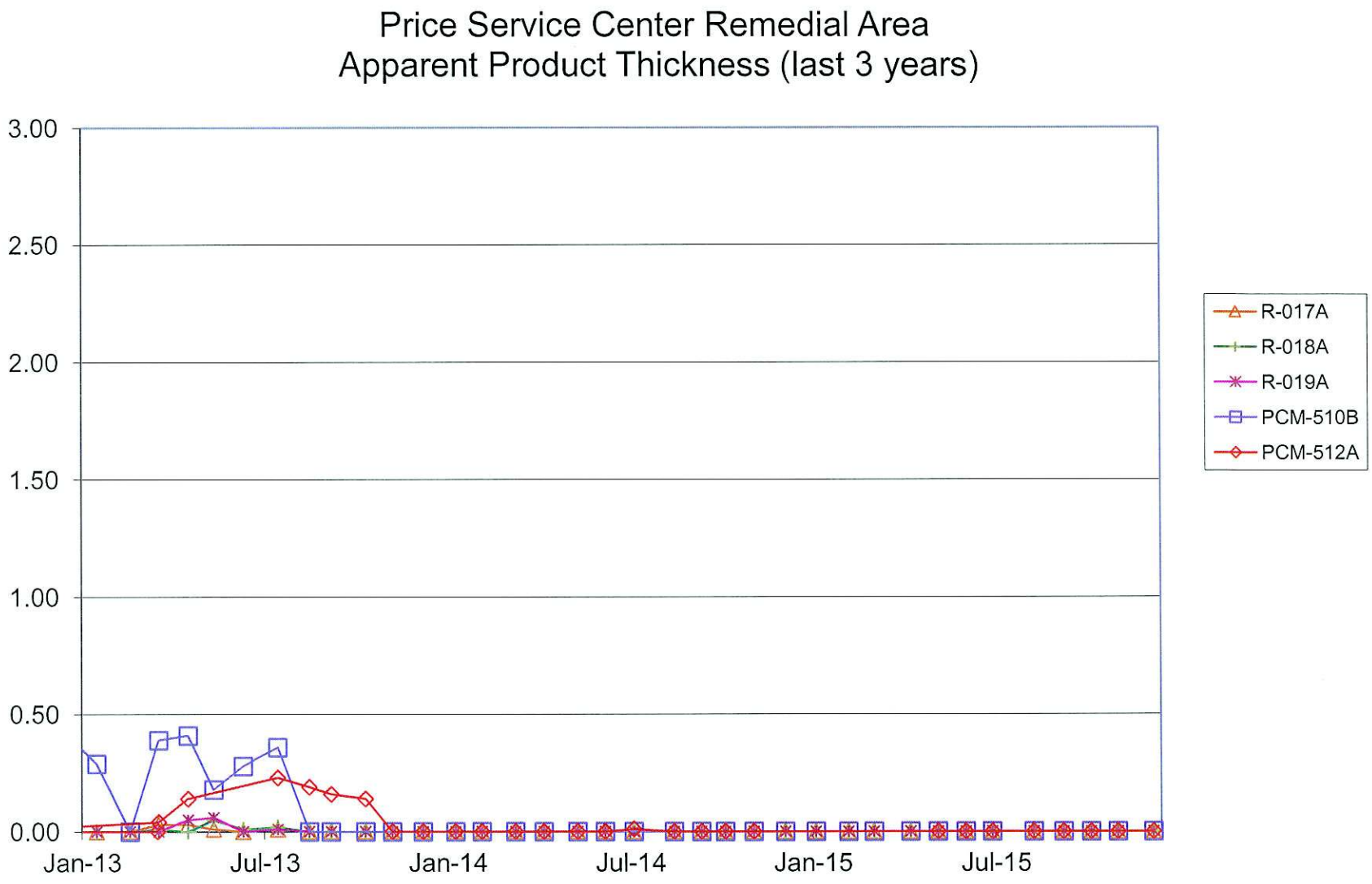
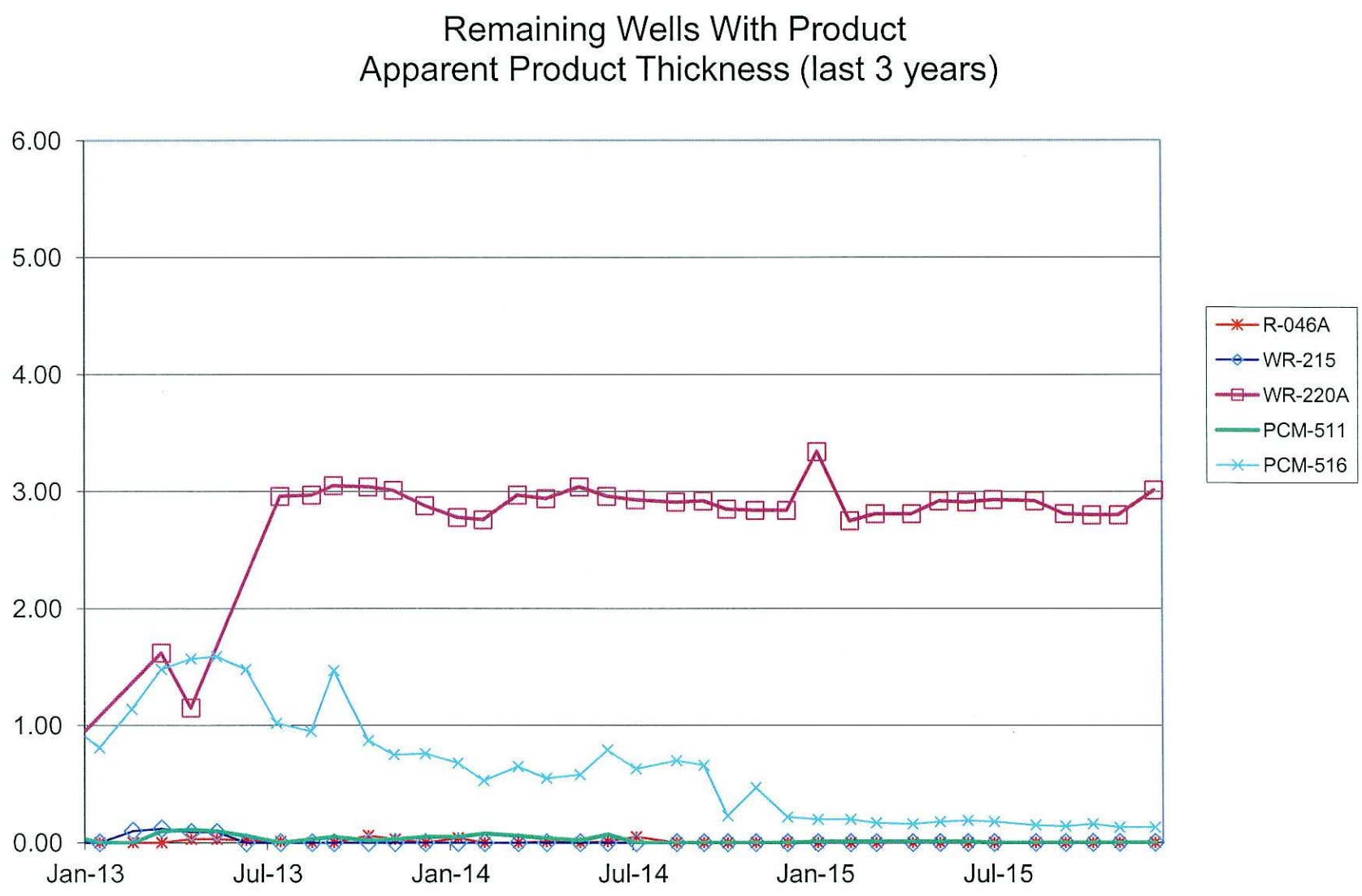


S:\EMCOMMON\PSC_TFS10\Well_System_Info\Groundwater_Data\App A tables WL and FP Rec Dat2014.xls



Note: All 'R' wells are connected to the Price Service Center Remediation System. PCM-510B and PCM-512A are monitor wells located within the vicinity of the system.



Note: These are all monitor wells currently not connected to any remediation system.

APPENDIX C

Groundwater Monitoring Analysis Matrix and
Groundwater Field Sampling Sheets

APPENDIX C
MARCH 2015 ANNUAL GROUNDWATER ANALYTE SAMPLING LIST
CITY OF TUCSON, THOMAS O. PRICE SERVICE CENTER
LUST FILE NO. 0767.01-0767.05, ADEQ FACILITY ID NO. 0-005160

	Field Parameter Measurements					Laboratory Analyses		
Well ID	DTW/ DTP	Dissolved Oxygen	ORP	Turbibity	pH	BTEX	MTBE	Full VOC List
Shallow-Zone Monitoring Wells:								
R-012A	X	X	X	X	X	X	X	NA
R-013A	X	X	X	X	X	X	X	NA
R-016A	X	X	X	X	X	X	X	NA
R-017A	X	X	X	X	X	X	X	NA
R-018A	X	X	X	X	X	X	X	NA
R-019A	X	X	X	X	X	X	X	NA
R-020A	X	X	X	X	X	X	X	NA
R-021A	X	X	X	X	X	X	X	NA
R-022A	X	X	X	X	X	X	X	NA
R-027A	X	X	X	X	X	X	X	NA
R-028A	X	X	X	X	X	X	X	NA
R-029A	X	X	X	X	X	X	X	NA
R-030A	X	X	X	X	X	X	X	NA
R-031A	X	X	X	X	X	X	X	NA
R-032A	X	X	X	X	X	X	X	NA
R-033A	X	X	X	X	X	X	X	NA
R-034A	X	X	X	X	X	X	X	NA
R-035A	X	X	X	X	X	X	X	NA
R-036A	X	X	X	X	X	X	X	NA
R-037A	X	X	X	X	X	X	X	NA
R-044A	X	X	X	X	X	X	X	NA
R-045A	X	X	X	X	X	X	X	NA
R-046A	X	X	X	X	X	X	X	NA
R-047A	X	X	X	X	X	X	X	NA
R-048A	X	X	X	X	X	X	X	NA
R-049A	X	X	X	X	X	X	X	NA
R-050A	X	X	X	X	X	X	X	NA
R-051A	X	X	X	X	X	X	X	NA
R-098A	X	X	X	X	X	X	X	NA
R-099A	X	X	X	X	X	X	X	NA
WR-208A	X	X	X	X	X	X	X	NA
WR-209A	X	X	X	X	X	X	X	NA
WR-210A	X	X	X	X	X	X	X	NA
WR-211A	X	X	X	X	X	X	X	NA
WR-212A	X	X	X	X	X	X	X	NA
WR-213A	X	X	X	X	X	X	X	NA
WR-214A	X	X	X	X	X	X	X	NA
WR-215A	X	X	X	X	X	NA	NA	X
WR-219A	X	X	X	X	X	NA	NA	X
WR-220A	X	X	X	X	X	NA	NA	X
WR-221A	X	X	X	X	X	X	X	NA
WR-222A	X	X	X	X	X	NA	NA	X
WR-223A	X	X	X	X	X	NA	NA	X
WR-224A	X	X	X	X	X	NA	NA	X
WR-225A	X	X	X	X	X	X	X	NA
WR-296A	X	X	X	X	X	X	X	NA
WR-298A	X	X	X	X	X	X	X	NA
PCM-506A	X	X	X	X	X	X	X	NA
PCM-507A	X	X	X	X	X	X	X	NA
PCM-508A	X	X	X	X	X	X	X	NA
PCM-508B	X	X	X	X	X	X	X	NA
PCM-509A	X	X	X	X	X	X	X	NA
PCM-509B	X	X	X	X	X	X	X	NA
PCM-510A	X	X	X	X	X	X	X	NA
PCM-510B	X	X	X	X	X	X	X	NA
PCM-511A	X	X	X	X	X	X	X	NA
PCM-512A	X	X	X	X	X	X	X	NA
PCM-516A	X	X	X	X	X	X	X	NA
PCM-517A	X	X	X	X	X	X	X	NA
PCM-534A	X	X	X	X	X	X	X	NA
PCM-535A	X	X	X	X	X	X	X	NA

Deep-Zone Monitoring Wells:								
WR-216A	X	X	X	X	X	X	X	NA
WR-217A	X	X	X	X	X	NA	NA	X
WR-218A	X	X	X	X	X	X	X	NA
WR-227A	X	X	X	X	X	NA	NA	X
WR-228A	X	X	X	X	X	X	X	NA
WR-229A	X	X	X	X	X	X	X	NA
WR-230A	X	X	X	X	X	X	X	NA
WR-231A	X	X	X	X	X	X	X	NA
WR-232A	X	X	X	X	X	X	X	NA
WR-233A	X	X	X	X	X	NA	NA	X
WR-235A	X	X	X	X	X	X	X	NA
Water Level Measurements Only (NO SAMPLE):								
WR-295A	X	NA	NA	NA	NA	NA	NA	NA
WR-295B	X	NA	NA	NA	NA	NA	NA	NA
WR-296B	X	NA	NA	NA	NA	NA	NA	NA
WR-297A	X	NA	NA	NA	NA	NA	NA	NA

Notes:

Where measurable product, no sample will be collected for water quality analyses.
DTP/DTW= Depth to Product/Depth to Water
ORP = Oxidation/Reduction Potential
BTEX = Benzene, Toluene, Ethylbenzene, Xylene
MTBE = Methyl tert-butyl ether
NA = Not Analyzed.
B wells =The deeper depth casing
= **No Sample.** Measureable product as of March 2015.
= Sample system wells first. So system can be turned back on.

CITY OF TUCSON

Environmental Management
Water Level Data Form

INT. B = BILL R. INT. SOUNDER

Project: Price Service Center

Date: 03-17-15

Field Personnel: JVM / GB/HV = INT A

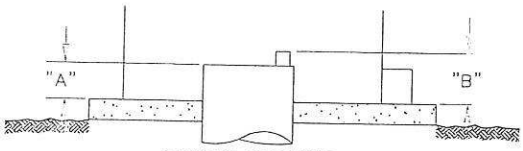
Well #	Location	Time	DTP	DTW	Total Depth	Correction Factor	Sounder ID	Well Inspection & Notes
R-022A	Price	1013		102.41	110'		INT. B.	
R-017A	Price				122'			
WR-208A	Price	0947		100.78	120'		INT. B	
WR-214A	Price	0857		109.32	120'		INT. B	
WR-216A	Price	0851		119.65	194'		INT. B	
WR-232A	Price	0943		124.42	190'		INT. B	
WR-228A	Price	0955		119.53	189'		INT. B	NO KICKSTAND
R-012A	Price	1010		102.02	120'		INT. B.	
WR-217A	Price	0910		119.41	190'		INT. B	
WR-211A	Price	0939		103.86	120'		INT. B.	
R-046A	Price				120'			
PCM-509A	Price	1021		103.02	121'		INT. B	
PCM-509B	Price	1023		102.87	108'		INT. B	
WR-210A	Price	1015		105.33	120'		INT. B	
R-021A	Price	1018		~~104.06~~	~~120'~~ → 102.94		INT. B	
WR-209A	Price	0850		104.00	120'		INT. B	
R-013A	Price	1036		103.04	120'		INT. B.	
PCM-510A	Price	1120		102.88	121'		INT A	
PCM-510B	Price				108'			
R-018A	Price				110'			
R-016A	Price	1042		102.43	120'		INT. B.	
PCM-512A	Price				121.3'			Police Car on well
R-020A	Price	1033		102.21	120'		INT. B.	
WR-215A	Price				120'			
R-019A	Price				112'			
PCM-511A	Price				120'			
WR-295A	Price	0915		103.53	107'		INT. B	
WR-295B	Price	0917		117.88	160'		INT. B	
WR-296A	Price	0928		102.86	107.55'		INT. B	
WR-296B	Price	0931		117.05	160.6'		INT. B	
WR-297A	Price	0920		103.29	111'		INT. B	
WR-298A	Price	0925		103.15	110.6'		INT. B	
R-028A	Fire				120'			
WR-229A	Fire	1103		120.03	190'		INT A	
R-029A	Fire				120'			
R-049A	Fire				125'			
WR-224A	Fire				115'			
R-048A	Fire				125'			
WR-212A	Fire				120'			
R-037A	Fire				120'			
R-050A	Fire				125'			
R-099A	Fire				121'			
R-035A	Fire				120'			
R-036A	Fire				120'			
R-047A	Fire				112'			
R-030A	Fire				112'			
R-027A	Fire				120'			
R-098A	Fire				120'			
R-031A	Fire				120'			
R-032A	Fire				120'			
WR-213A	Fire Storage	0940	~~10~~	100.62	120'		INT A	
WR-218A	Fire Storage	0945		119.88	194'		INT A	Transducer

Project: Price Service Center (continued)

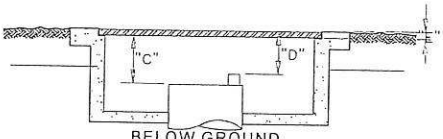
WR-227A	VA	1010		156.18	191'		INT A	
WR-222A	VA	1013		94.51	111.5'		INT A	
WR-233A	VA	1005		148.22	191'		INT A	No Bolts
WR-225A	Ajo/Benson	0817		121.85	125'		INT A	
WR-230A	Ajo/Benson	0814		121.38	191'		INT A	Transducer
WR-231A	W. Neighborhood	0950		128.09	192'		INT A	
WR-235A	W. Neighborhood	1000		149.72	192'		INT A	No bolts / No roots
PCM-506A	Evans	0849		102.92	123'		INT A	
WR-220A	Evans	0830		111.05	125'		INT A	
WR-221A	Evans	0810		116.17	120'		INT A	
WR-219A	45th/Evans	0845		104.77	122'		INT A	
WR-223A	47th/Evans	0835		108.72	120'		INT A	
R-045A	Wash	0910		99.48	120'		INT A	Transducer
R-033A	Wash				120'			
R-051A	Wash				125'			
R-034A	Wash				120'			
R-044A	Wash	0913		104.72	120'		INT A	
PCM-507A	7-11				123			
PCM-508A	7-11	0855		106.42	121'		INT A	
PCM-508B	7-11	0900		100.85	110'		INT A	
PCM-516A	Car Lot				123'			
PCM-517A	Car Lot	0822		111.72	122.5'		INT A	
PCM-534A	7-11							
PCM-535A	Wash							

Additional Comments: Wells that are shaded will be measured by Cardno. → See attached WL Sheet.

Correction Factor Guide



ABOVE GROUND
DISTANCE "A" (TOP OF CASING TO TOP OF SLAB)
DISTANCE "B" (TOP OF SOUNDING TUBE TO TOP OF SLAB)



BELOW GROUND
DISTANCE "C" (TOP OF CASING TO TOP OF FRAME LIP)
DISTANCE "D" (TOP OF SOUNDING TUBE TO TOP OF FRAME LIP)
DISTANCE "E" (TOP OF FRAME TO TOP OF SLAB)

TY OF TUCSON PRICE SERVICE CENTER DATE: 3/16/2015 Name: Jacob McCue & Nic Turner

Well ID	Time	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)	Amount Removed (gal)	Wellhead * Vaccum (in H_2O)	PID * (ppm)	Comments
R-027	1029	Sheen	100.32	Sheen	0			* Vaccum and PID readings
R-028	1222	98.61	98.86	0.25	0			were not taken, because SVE
R-029	1104	ND	98.71	ND	0			systems were shutdown for
R-030	1036	ND	101.34	ND	0			annual groundwater sampling.
R-031	1021	ND	100.1	ND	0			
R-032	0936	ND	99.73	ND	0			
R-033	1000	ND	98.69	ND	0			
R-034	0956	ND	107.49	ND	0			
R-035	1320	99.39	99.51	0.12	0			
R-036	0946	ND	99.85	ND	0			
R-037	0930	ND	99.06	ND	0			
R-047	0940	ND	100.28	ND	0			
R-048	1046	ND	98.98	ND	0			
R-049	1050	ND	98.76	ND	0			
R-050	1015	ND	99.02	ND	0			
R-051	1229	110.59	111.49	0.9	0			
R-098	0942	ND	103.70	ND	0			
R-099	1048	ND	98.72	ND	0			
WR-212	1010	ND	99.51	ND	0			
WR-220A	1309	110.84	113.65	2.81	0			
WR-224	1114	ND	100.37	ND	0			
PCM-507	1242	111.75	113.01	1.26	0			
PCM-508B	1130	ND	100.79	ND	0			
PCM-516	1254	114.50	114.67	0.17	0			
PCM-534	1235	111.41	112.98	1.57	0			
PCM-535	0948	ND	102.06	ND	0			
R-017A	1150	ND	102.93	ND	0			
R-018A	1140	ND	102.48	ND	0			
R-019A	1148	ND	102.46	ND	0			
R-046A	1213	ND	104.41	ND	0			
PCM-510B	1144	ND	102.49	ND	0			
PCM-511A	1218	103.00	103.01	0.01	0			
PCM-512A	NT	NT	NT	NT	NT			Unable to access/Car ontop
WR-215	1208	ND	105.11	ND	0			

Correction factor +0.86

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 121
D (diameter) 4
d factor 1.96

Well Name PCM-506A

Project Price Service Center

Date Mar 24, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 102.87 Time 10:43:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 12 1.5 18 2 24 2.5 30 3 36 3.5 42 4 48 4.5 54 5 60

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
12	1059	7.70	755	25.09	7.23	110.8	-	7.6
18								
24								
30								
36								
42								
48								
54								
60								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:55:00 Dup Time: Time Ended: 10:59:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
FAINT GAS ODOR IN SAMPLE.

Correction factor +0.47

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 110
D (diameter) 4
d factor 1.96

Well Name **PCM-508A**

Project Price Service Center

Date Mar 19, 2015

Field Personnel JVM/GB

Weather CLOUDY/COOL

Static Water Level 106.45 Time 08:30:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 2 1.5 3 2 4 2.5 5 3 7 3.5 8 4 9 4.5 10 5 11

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 19, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
2	0844	7.79	271	24.61	5.56	5.28	-	4.0
3								
4								
5								
7								
8								
9								
10								
11								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:40:00 Dup Time: Time Ended: 08:44:00

Transferred to: Relinquished by: Javier Montante Date Mar 19, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.45

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 110
D (diameter) 4
d factor 1.96

Well Name **PCM-508B**

Project Price Service Center

Date Mar 19, 2015

Field Personnel JVM/GB

Weather CLOUDY/COOL

Static Water Level 100.94 Time 08:49:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 6 1.5 9 2 12 2.5 15 3 18 3.5 21 4 24 4.5 27 5 30

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 19, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
6	0859	7.55	258	24.65	6.11	-58.1	-	11.3
9								
12								
15								
18								
21								
24								
27								
30								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:55:00 Dup Time: Time Ended: 08:59:00

Transferred to: Relinquished by: Javier Montante Date Mar 19, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Fm 3.19.15

Correction factor +0.57

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 121
D (diameter) 4
d factor

Well Name **PCM-509A**
Project Price Service Center
Date Mar 20, 2015
Field Personnel JVM/HJV
Weather SUNNY/WARM

Static Water Level 102.97 Time 09:40:00
Totalizer: End
Start 0
Sounder ID INT A
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 20, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0951	7.79	858	25.26	6.17	48.5	-	2.1
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 09:48:00 Dup Time: Time Ended: 09:51:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 20, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.48

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 108.2
D (diameter)
d factor

Well Name PCM-509B

Project Price Service Center

Date Mar 20, 2015

Field Personnel JVM/HJV

Weather SUNNY/WARM

Static Water Level 102.77 Time 10:00:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 20, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1014	7.71	941	26.47	3.73	48.2	-	99.9
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 10:10:00 Dup Time: Time Ended: 10:14:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 20, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE GREY IN COLOR.

Correction factor +0.34

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 121
D (diameter) 2
d factor

Well Name PCM-510A
Project Price Service Center
Date Mar 31, 2015
Field Personnel JVM/HJV
Weather COOL

Static Water Level 102.98 Time 06:45:00
Totalizer: End
Start 0
Sounder ID INT A
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 31, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0658	7.68	702	25.30	5.35	104.4	-	5.1
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 06:55:00 Dup Time: Time Ended: 06:58:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 31, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
FAINT PATROLEUM ODOR IN SAMPLE.

Correction factor +0.69

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD
D (diameter) 2
d factor

Well Name PCM-510B

Project Price Service Center

Date Mar 31, 2015

Field Personnel JVM/HJV

Weather COOL

Static Water Level 102.40 Time 07:00:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 31, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0710	6.49	806	26.32	3.46	-76.8	-	62.6
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 07:05:00 Dup Time: Time Ended: 07:09:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 31, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE LIGHT GREY IN COLOR. STRONG PETROLEUM ODOR IN SAMPLE.

Correction factor +0.30

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **PCM-512A**
Project Price Service Center
Date Mar 25, 2015
Field Personnel JVM/HJV
Weather CLOUDY/COOL

Static Water Level 103.34 Time 11:00:00
Totalizer: End
Start 0
Sounder ID INT A
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 11 1.5 17 2 23 2.5 29 3 33 3.5 39 4 45 4.5 51 5 57

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 25, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
11	1110	7.02	782	26.64	4.13	-143.9	-	31.5
17								
23								
29								
33								
39								
45								
51								
57								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 11:05:00 Dup Time: n/a Time Ended: 11:08:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 25, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE DARK GREY IN COLOR AND CONTAINING BLACK SPECTS. SAMPLE HAD STRONG PETROLEUM ODOR.

Correction factor +0.51

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 122.5
D (diameter) 4
d factor 1.96

Well Name **PCM-517A**

Project Price Service Center

Date Mar 25, 2015

Field Personnel HJV/JVM

Weather CLOUDY/COOL

Static Water Level 111.78 Time 08:15:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 7 1.5 11 2 15 2.5 19 3 21 3.5 25 4 29 4.5 33 5 37

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 25, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
7	0828	7.52	224	21.92	4.31	-82.1	-	71.7
11								
15								
19								
21								
25								
29								
33								
37								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 08:20:00 Dup Time: 08:24:00 Time Ended: 08:28:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 25, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☒ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. DUBLICATE. SAMPLE GREY IN COLOR AND CONTAINING BLACK SPECTS..

Correction factor +0.31

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name PCM-535A

Project Price Service Center

Date Mar 19, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 102.00 Time 09:05:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 19, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0917	7.55	368	22.91	5.42	-90.1	-	7.4
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:10:00 Dup Time: 09:14:00 Time Ended: 09:17:00

Transferred to: Relinquished by: Javier Montante Date Mar 19, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☒ Semi-Annual ☒ Annual ☐ Investigation

☒ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. BLACK FLECKS IN SAMPLES.

Correction factor +0.72

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 140
D (diameter) 4
d factor

Well Name R-012A
Project Price Service Center
Date Mar 19, 2015
Field Personnel JVM/GB
Weather CLOUDY/COOL

Static Water Level 102.55 Time 09:30:00
Totalizer: End
Sounder ID INT A
Start 0
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS
Calibration Date: Mar 19, 2015

Parameters: *(Stable within)* +/-0.1 +/-3% +/-3% +/-10% +/-20 mv

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0941	7.60	493	24.23	5.49	91.1	-	2.3
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:37:00 Dup Time: Time Ended: 09:41:00

Transferred to: Relinquished by: Javier Montante Date Mar 19, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.73

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name R-013A
Project Price Service Center
Date Mar 20, 2015
Field Personnel JVM/HJV
Weather SUNNY/COOL

Static Water Level 103.07 Time 08:10:00
Totalizer: End
Start 0
Sounder ID INT A
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 20, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0820	7.30	661	25.73	3.22	-117.1	-	4.4
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 08:15:00 Dup Time: 08:17:00 Time Ended: 08:20:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 20, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☒ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.49

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name R-016A

Project Price Service Center

Date Mar 19, 2015

Field Personnel JVM/GB

Weather CLOUDY/COOL

Static Water Level 102.33 Time 10:30:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 19, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1039	7.40	407	24.88	4.57	156.7	-	8.9
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:35:00 Dup Time: Time Ended: 10:39:00

Transferred to: Relinquished by: Javier Montante Date Mar 19, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Tu. 2-10-15

Correction factor +0.75

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name R-017A

Project Price Service Center

Date Mar 20, 2015

Field Personnel JVM/HJV

Weather SUNNY/COOL

Static Water Level 103.04 Time 08:42:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 20, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0854	6.94	896	26.56	3.34	38.5	-	8.6
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 08:50:00 Dup Time: Time Ended: 08:54:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 20, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.64

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 110
D (diameter) 4
d factor 1.96

Well Name R-018A

Project Price Service Center

Date Mar 20, 2015

Field Personnel JVM/HJV

Weather SUNNY/WARM

Static Water Level 102.56 Time 09:00:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 5 1.5 8 2 11 2.5 14 3 15 3.5 18 4 21 4.5 24 5 27

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 20, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
5	0914	6.73	1158	27.12	3.17	-82.7	-	99.9
8								
11								
14								
15								
18								
21								
24								
27								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 09:10:00 Dup Time: Time Ended: 09:14:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 20, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE GREY IN COLOR AND CONTAINING BLACK PARTICLES . STRONG GAS ODOR.

Correction factor _____

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 112
D (diameter) 4
d factor _____

Well Name R-019A

Project Price Service Center

Date Mar 20, 2015

Field Personnel JVM/HJV

Weather SUNNY/WARM

Static Water Level 102.55 Time 0.920

Totalizer: End _____ Start 0 Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM) _____

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start _____ End _____ Total (min) _____

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 20, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0950	6.74	760	25.50	3.29	-98.7	-	34.4
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 09:27:00 Dup Time: _____ Time Ended: 09:30:00

Transferred to: _____ Relinquished by: Hank Vimislik Date Mar 20, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE GREY IN COLOR AND A SLIGHT GAS ODOR.

Correction factor +0.68

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name **R-020A**

Project Price Service Center

Date Mar 20, 2015

Field Personnel JVM/HJV

Weather SUNNY/WARM

Static Water Level 102.10 Time 10:20:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 20, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1029	6.97	273	25.84	3.21	-15.0	-	8.2
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 10:25:00 Dup Time: Time Ended: 10:29:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 20, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.66

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name R-021A

Project Price Service Center

Date Mar 19, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 102.78 Time 09:55:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 19, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1006	7.62	494	25.18	5.37	113.1	-	5.0
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:03:00 Dup Time: Time Ended: 10:06:00

Transferred to: Relinquished by: Javier Montante Date Mar 19, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.86

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 110
D (diameter) 4
d factor

Well Name R-022A
Project Price Service Center
Date Mar 19, 2015
Field Personnel JVM/GB
Weather CLOUDY/COOL

Static Water Level 102.35 Time 10:45:00
Sounder ID INT A

Totalizer: End
Start 0
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS
Calibration Date: Mar 19, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1053	7.60	501	25.17	5.34	161.9	-	54.3
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:50:00 Dup Time: Time Ended: 10:53:00

Transferred to: Relinquished by: Javier Montante Date Mar 19, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. WATER WAS SLIGHTLY TURBID/LIGHT BROWN COLOR.

Tue 3-19-15

Correction factor +0.48

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **R-029A**

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 98.91 Time 08:40:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 14 1.5 21 2 28 2.5 35 3 41 3.5 48 4 55 4.5 62 5 69

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
14	0852	7.48	331	22.86	7.67	57.6	-	1.9
21								
28								
35								
41								
48								
55								
62								
69								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:45:00 Dup Time: 08:48:00 Time Ended: 08:52:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☒ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.70

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 121.7
D (diameter) 4
d factor 1.96

Well Name R-030A

Project Price Service Center

Date Mar 24, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 100.31 Time 10:05:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 14 1.5 21 2 28 2.5 35 3 42 3.5 49 4 56 4.5 63 5 70

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
14	1014	7.51	817	27.09	5.40	-70.4	-	>100
21								
28								
35								
42								
49								
56								
63								
70								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:10:00 Dup Time: Time Ended: 10:14:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
TURBID, DARK GRAY COLOR, BUBBLES IN BAILER AND LITTLE AMOUNT OF GAS SNOT IN SAMPLE.

Correction factor +0.41

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name R-031A

Project Price Service Center

Date Mar 24, 2015

Field Personnel JVM/GB

Weather SUNNY/WARM

Static Water Level 100.00 Time 10:20:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 13 1.5 20 2 27 2.5 34 3 39 3.5 46 4 53 4.5 60 5 67

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
13	1034	7.40	694	25.43	5.18	45.9	-	>100
20								
27								
34								
39								
46								
53								
60								
67								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:30:00 Dup Time: Time Ended: 10:34:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
SAMPLE WAS CLOUDY, HAD A GAS ODOR AND YELLOW IN COLOR.

Correction factor +0.77

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **R-032A**

Project Price Service Center

Date Mar 24, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 99.44 Time 09:28:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 13 1.5 20 2 27 2.5 34 3 40 3.5 47 4 54 4.5 61 5 68

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
13	0937	7.95	650	24.23	6.01	97.9	-	>100
20								
27								
34								
40								
47								
54								
61								
68								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:33:00 Dup Time: Time Ended: 09:37:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
TURBID AND LOTS OF GAS SNOT IN SAMPLE.

Correction factor +0.50

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name R-033A

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 98.72 Time 09:54:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 14 1.5 21 2 28 2.5 35 3 42 3.5 49 4 56 4.5 63 5 70

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
14	1001	7.22	300	25.70	4.52	-117.9	-	>100
21								
28								
35								
42								
49								
56								
63								
70								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:58:00 Dup Time: Time Ended: 10:01:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE WAS CLOUDY AND TURBID. FAINT GAS ODOR.

Correction factor +0.54

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name R-034A

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 107.59 Time 10:12:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 8 1.5 12 2 16 2.5 20 3 24 3.5 28 4 32 4.5 36 5 40

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
8	1021	6.70	124	25.67	3.30	-144.8	-	33.1
12								
16								
20								
24								
28								
32								
36								
40								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:17:00 Dup Time: Time Ended: 10:21:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. BLACK SPECKS IN SAMPLE. GAS ODOR PRESENT. VERY SMALL AMOUNT OF GAS SNOT IN SAMPLE-NOT ON OUTSIDE OF SOUNDER OR BAILER.

Correction factor +0.67

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **R-036A**

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 100.85 Time 10:35:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 13 1.5 20 2 27 2.5 34 3 38 3.5 45 4 52 4.5 59 5 66

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
13	1045	7.18	309	25.99	3.52	-96.2	-	>100
20								
27								
34								
38								
45								
52								
59								
66								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:42:00 Dup Time: Time Ended: 10:45:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. BLACK FLAKES IN SAMPLE. SOME GAS ODOR. LITTLE AMOUNT OF GAS SNOT IN SAMPLE-NOT ON OUTSIDE OF SOUNDER OR BAILER.

Correction factor +0.87

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name R-037A
Project Price Service Center
Date Mar 31, 2015
Field Personnel JVM/HJV
Weather SUNNY/WARM

Static Water Level 99.22 Time 07:20:00
Totalizer: End
Sounder ID INT A
Start 0
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 14 1.5 21 2 28 2.5 35 3 41 3.5 48 4 55 4.5 62 5 69

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 31, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
14	0729	7.09	626	24.25	4.32	-72.7	-	68.8
21								
28								
35								
41								
48								
55								
62								
69								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 07:25:00 Dup Time: Time Ended: 07:28:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 31, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE LIGHT GREY IN COLOR WITH SPECKS AND A STRONG PETROLEUM ODOR.

Correction factor +0.02

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 115
D (diameter) 4
d factor 1.96

Well Name **R-044A**

Project Price Service Center

Date Mar 26, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 104.72 Time 11:18:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 7 1.5 11 2 15 2.5 19 3 20 3.5 24 4 28 4.5 32 5 36

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 26, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
7	1129	6.93	838	25.62	7.20	115.8	-	2.0
11								
15								
19								
20								
24								
28								
32								
36								

Sampling:

Samples Collected by: George Bejarano Time Started: 11:25:00 Dup Time: Time Ended: 11:29:00

Transferred to: Relinquished by: George Bejarano Date Mar 26, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.21

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **R-045A**

Project Price Service Center

Date Mar 26, 2015

Field Personnel JVM/GB

Weather SUNNY/WARM

Static Water Level 99.21 Time 11:35:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 14 1.5 21 2 28 2.5 35 3 41 3.5 48 4 55 4.5 62 5 69

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 26, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
14	1145	7.71	640	25.93	5.29	122.0	-	14.5
21								
28								
35								
41								
48								
55								
62								
69								

Sampling:

Samples Collected by: George Bejarano Time Started: 11:42:00 Dup Time: Time Ended: 11:45:00

Transferred to: Relinquished by: George Bejarano Date Mar 26, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SMALL BROWN FLECKS IN SAMPLE.

Tu 2-26-15

Correction factor +0.41

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **R-046A**

Project Price Service Center

Date Mar 24, 2015

Field Personnel JVM/GB

Weather SUNNY/COOL

Static Water Level 104.60 Time 09:03:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 10 1.5 15 2 20 2.5 25 3 30 3.5 35 4 40 4.5 45 5 50

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
10	0914	7.62	724	23.03	5.82	64.9	-	11.8
15								
20								
25								
30								
35								
40								
45								
50								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:10:00 Dup Time: Time Ended: 09:14:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. FAINT GAS ODOR AND SMALL BLACK FLECKS IN SAMPLE.

Correction factor _____

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD _____
D (diameter) _____
d factor _____

Well Name R-047A

Project Price Service Center

Date Mar 31, 2015

Field Personnel JVM/HJV

Weather SUNNY/WARM

Static Water Level 99.95 Time 07:40:00

Totalizer: End _____
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM) _____

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start _____
End _____
Total (min) _____

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 31, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0							-	
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: _____ Dup Time: _____ Time Ended: _____

Transferred to: _____ Relinquished by: Hank Vimislik Date _____

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: NO SAMPLE. BAIL SAMPLE LIGHT GREY IN COLOR WITH 3 INCHES OF GAS "SNOT" AND A VERY STRONG PETROLEUM ODOR. NO SAMPLE SUBMITTED.

Correction factor +1.17

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 125
D (diameter) 4
d factor 1.96

Well Name **R-048A**

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 99.08 Time 09:32:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 17 1.5 26 2 35 2.5 44 3 51 3.5 60 4 69 4.5 78 5 87

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
17	0941	7.88	400	25.08	5.37	59.1	-	1.3
26								
35								
44								
51								
60								
69								
78								
87								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:38:00 Dup Time: Time Ended: 09:41:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.37

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 115
D (diameter) 4
d factor

Well Name R-049A

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 98.84 Time 09:00:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)*		*+/-0.1*	*+/-3%*	*+/-3%*	*+/-10%*	*+/-20 mv*		
Gallons	**Time (hrs)**	**pH**	**SpC (µS/cm)**	**Temp (C)**	**DO (mg/l)**	**ORP**	**PWL (feet)**	**Turbidity (ntu)**
0	0911	7.58	691	23.87	6.08	93.4	-	5.5
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:07:00 Dup Time: Time Ended: 09:11:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Tm 3-16-15

Correction factor +0.39

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 125
D (diameter) 4
d factor 1.96

Well Name R-050A

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 99.11

Time 11:05:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Discharge Rate(GPM)

Well Volumes (gallons):

1 17 1.5 26 2 35 2.5 44 3 51 3.5 60 4 69 4.5 78 5 87

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
17	1119	7.37	332	26.01	5.31	-53.1	-	>100
26								
35								
44								
51								
60								
69								
78								
87								

Sampling:

Samples Collected by: George Bejarano Time Started: 11:15:00 Dup Time: Time Ended: 11:19:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SMALL AMOUNT OF BLACK SPECKS IN SAMPLE. FAINT GAS ODOR. MINUTE AMOUNT OF GAS SNOT IN SAMPLE-NOT ON OUTSIDE OF SOUNDER OR BAILER.

Correction factor _____

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD _____
D (diameter) _____
d factor _____

Well Name R-098A

Project Price Service Center

Date Mar 31, 2015

Field Personnel JVM/HJV

Weather SUNNY/WARM

Static Water Level _____ Time _____

Totalizer: End _____
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM) _____

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start _____
End _____
Total (min) _____

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 31, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0							-	
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: _____ Dup Time: _____ Time Ended: _____

Transferred to: _____ Relinquished by: Hank Vimislik Date _____

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: NO SAMLES TAKEN DUE TO GAS "SNOT" PRESENT IN WELL.

Correction factor +0.63

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 121
D (diameter) 4
d factor

Well Name R-099A

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 98.79 Time 09:18:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)*		*+/-0.1*	*+/-3%*	*+/-3%*	*+/-10%*	*+/-20 mv*		
Gallons	**Time (hrs)**	**pH**	**SpC (µS/cm)**	**Temp (C)**	**DO (mg/l)**	**ORP**	**PWL (feet)**	**Turbidity (ntu)**
0	0927	7.35	677	25.01	4.52	-150.9	-	13.0
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:23:00 Dup Time: Time Ended: 09:27:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. BLACK FLECKS IN SAMPLE. FAINT GAS ODOR.

Fri 3/20/15

Correction factor -0.32

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name **WR-208A**

Project Price Service Center

Date Mar 23, 2015

Field Personnel JVM/GB

Weather SUNNY/COOL

Static Water Level 100.75 Time 09:22:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 23, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0930	7.02	991	26.99	5.95	159.1	-	1.3
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:27:00 Dup Time: Time Ended: 09:30:00

Transferred to: Relinquished by: George Bejarano Date Mar 23, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor -0.29

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name **WR-209A**

Project Price Service Center

Date Mar 19, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 104.10 Time 10:15:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 19, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1024	7.64	469	24.57	4.79	144.0	-	6.5
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:20:00 Dup Time: Time Ended: 10:24:00

Transferred to: Relinquished by: Javier Montante Date Mar 19, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor -0.74

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name **WR-210A**

Project Price Service Center

Date Mar 20, 2015

Field Personnel JVM/HJV

Weather SUNNY/COOL

Static Water Level 105.36 Time 08:29:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 20, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0836	7.34	1111	25.02	3.55	-168.2	-	3.1
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 08:33:00 Dup Time: Time Ended: 08:36:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 20, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor -0.38

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name **WR-211A**

Project Price Service Center

Date Mar 23, 2015

Field Personnel JVM/GB

Weather SUNNY/COOL

Static Water Level 103.85 Time 08:20:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 23, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0837	7.45	196	19.70	7.79	163.4	-	39.6
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:30:00 Dup Time: 08:34:00 Time Ended: 08:37:00

Transferred to: Relinquished by: George Bejarano Date Mar 23, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☒ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
SAMPLE CONTAINED SMALL ROOTS AND WAS LIGHT BROWN COLOR.

Tu 3-22-15

Correction factor +0.22

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name WR-212A

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 99.58 Time 11:30:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1144	7.35	452	25.05	4.53	-175.5	-	4.3
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 11:40:00 Dup Time: Time Ended: 11:44:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. FAINT GAS ODOR.

Tue 3 10 15

Correction factor -0.13

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name **WR-213A**

Project Price Service Center

Date Mar 23, 2015

Field Personnel JVM/GB

Weather SUNNY/WARM

Static Water Level 100.64 Time 09:53:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 23, 2015

Parameters: (Stable within)		+/-0.1	+/-3%	+/-3%	+/-10%	+/-20 mv		
Gallons	**Time (hrs)**	**pH**	**SpC (µS/cm)**	**Temp (C)**	**DO (mg/l)**	**ORP**	**PWL (feet)**	**Turbidity (ntu)**
0	1002	7.54	925	24.77	5.75	170.3	-	17.3
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:58:00 Dup Time: Time Ended: 10:02:00

Transferred to: Relinquished by: George Bejarano Date Mar 23, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SMALL BROWN FLECKS IN SAMPLE.

Tue 03.15

Correction factor -0.57

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter)
d factor

Well Name **WR-214A**

Project Price Service Center

Date Mar 23, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 109.32 Time 10:07:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 23, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1015	7.52	802	24.58	5.39	149.8	-	>100
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:12:00 Dup Time: Time Ended: 10:15:00

Transferred to: Relinquished by: George Bejarano Date Mar 23, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
SAMPLE WAS TURBID AND LIGHT BROWN IN COLOR.

JM 2-23-15

Correction factor -0.57

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor

Well Name WR-215A

Project Price Service Center

Date Mar 24, 2015

Field Personnel JVM/GB

Weather SUNNY/COOL

Static Water Level 105.26 Time 07:55:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0814	7.43	795	23.62	4.61	-178.2	-	57.3
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:07:00 Dup Time: 08:10:00 Time Ended: 08:14:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☒ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
FAINT GAS ODOR AND SMALL AMOUNT OF GAS SNOT IN SAMPLE.

Fri 3/26/15

Correction factor -0.63

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 194
D (diameter) 4
d factor 1.96

Well Name **WR-216A**

Project Price Service Center

Date Mar 23, 2015

Field Personnel JVM/GB

Weather SUNNY/COOL

Static Water Level 119.07 Time 09:05:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 49 1.5 74 2 99 2.5 124 3 147 3.5 172 4 197 4.5 222 5 247

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 23, 2015

Parameters: *(Stable within)*		*+/-0.1*	*+/-3%*	*+/-3%*	*+/-10%*	*+/-20 mv*		
Gallons	**Time (hrs)**	**pH**	**SpC (µS/cm)**	**Temp (C)**	**DO (mg/l)**	**ORP**	**PWL (feet)**	**Turbidity (ntu)**
49	0915	5.95	757	24.04	7.15	129.2	-	1.9
74								
99								
124								
147								
172								
197								
222								
247								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:11:00 Dup Time: Time Ended: 09:15:00

Transferred to: Relinquished by: George Bejarano Date Mar 23, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

TM 4-23-15

Correction factor -0.49

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 190
D (diameter) 4
d factor

Well Name **WR-217A**

Project Price Service Center

Date Mar 24, 2015

Field Personnel GB/JVM

Weather SUNNY/COOL

Static Water Level 118.22 Time 08:18:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0826	7.43	854	24.28	6.78	18.4	-	0.9
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:22:00 Dup Time: Time Ended: 08:26:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

TW 3-24-15

Correction factor -0.40

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 194
D (diameter) 4
d factor

Well Name **WR-218A**

Project Price Service Center

Date Mar 23, 2015

Field Personnel GB/JVM

Weather SUNNY/COOL

Static Water Level 119.96 Time 09:40:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 23, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0950	7.32	836	25.32	5.63	150.8	-	8.0
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 09:47:00 Dup Time: Time Ended: 09:50:00

Transferred to: Relinquished by: George Bejarano Date Mar 23, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SMALL BROWN FLECKS IN SAMPLE.

4-22-15

Correction factor +0.66

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 122
D (diameter) 4
d factor 1.96

Well Name **WR-219A**

Project Price Service Center

Date Mar 24, 2015

Field Personnel JVM/GB

Weather SUNNY/WARM

Static Water Level 104.77 Time 11:05:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 11 1.5 17 2 23 2.5 29 3 34 3.5 40 4 46 4.5 52 5 58

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
11	1114	7.39	1110	26.44	4.62	25.8	-	8.0
17								
23								
29								
34								
40								
46								
52								
58								

Sampling:

Samples Collected by: George Bejarano Time Started: 11:10:00 Dup Time: Time Ended: 11:14:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
SMALL BLACK FLECKS IN SAMPLE.

Correction factor +0.41

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **WR-221A**

Project Price Service Center

Date Mar 25, 2015

Field Personnel HJV/JVM

Weather CLOUDY/COOL

Static Water Level 116.17 Time 08:42:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 3 1.5 5 2 7 2.5 9 3 8 3.5 10 4 12 4.5 14 5 16

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 25, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
3	0848	7.19	661	23.85	3.57	88.7	-	13.0
5								
7								
9								
8								
10								
12								
14								
16								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 08:45:00 Dup Time: n/a Time Ended: 08:48:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 25, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. BLACK SPECTS IN SAMPLE..

Correction factor +0.39

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 111.5
D (diameter) 4
d factor

Well Name **WR-222A**
Project Price Service Center
Date Mar 25, 2015
Field Personnel JVM/HJV
Weather CLOUDY/COOL

Static Water Level 95.54 Time 09:40:00
Totalizer: End
Start 0
Sounder ID INT A
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 25, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0947	7.53	962	24.49	5.59	130.2	-	10.5
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 09:45:00 Dup Time: n/a Time Ended: 09:47:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 25, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.41

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **WR-223A**

Project Price Service Center

Date Mar 24, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 108.70 Time 11:35:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 7 1.5 11 2 15 2.5 19 3 22 3.5 26 4 30 4.5 34 5 38

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
7	1144	7.59	565	26.95	5.52	72.1	-	8.0
11								
15								
19								
22								
26								
30								
34								
38								

Sampling:

Samples Collected by: George Bejarano Time Started: 11:40:00 Dup Time: Time Ended: 11:44:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +0.12

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 115
D (diameter) 4
d factor 1.96

Well Name **WR-224A**

Project Price Service Center

Date Mar 18, 2015

Field Personnel GB/JVM

Weather CLOUDY/COOL

Static Water Level 100.44 Time 11:58:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 10 1.5 15 2 20 2.5 25 3 29 3.5 34 4 39 4.5 44 5 49

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 18, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
10	1212	7.50	459	24.87	5.83	-154.2	-	10.9
15								
20								
25								
29								
34								
39								
44								
49								

Sampling:

Samples Collected by: George Bejarano Time Started: 12:08:00 Dup Time: Time Ended: 12:12:00

Transferred to: Relinquished by: George Bejarano Date Mar 18, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

Correction factor +1.07

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 125
D (diameter) 4
d factor 1.96

Well Name **WR-225A**

Project Price Service Center

Date Mar 24, 2015

Field Personnel JVM/GB

Weather SUNNY/WARM

Static Water Level 121.78 Time 12:00:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 2 1.5 3 2 4 2.5 5 3 6 3.5 7 4 8 4.5 9 5 10

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
2	1214	7.61	1099	26.72	6.10	-40.8	-	25.0
3								
4								
5								
6								
7								
8								
9								
10								

Sampling:

Samples Collected by: George Bejarano Time Started: 12:10:00 Dup Time: Time Ended: 12:14:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
LOT OF ROOTS IN SAMPLE.

Tr. 3-24-15

Correction factor +0.69

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 191
D (diameter) 4
d factor

Well Name **WR-227A**

Project Price Service Center

Date Mar 25, 2015

Field Personnel JVM/HJV

Weather CLOUDY/COOL

Static Water Level 156.09 Time 09:55:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 25, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1005	7.64	1557	25.08	3.60	-77.3	-	36.5
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 10:00:00 Dup Time: n/a Time Ended: 10:04:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 25, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE DARK GREY IN COLOR AND CONTAINING BLACK SPECTS. SLIGHT PETROLEUM ODOR.

Correction factor -0.49

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 189
D (diameter) 4
d factor 1.96

Well Name **WR-228A**

Project Price Service Center

Date Mar 23, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 119.50 Time 10:22:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 45 1.5 68 2 91 2.5 114 3 136 3.5 159 4 182 4.5 205 5 228

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 23, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
45	1031	9.13	378	24.85	5.06	82.4	-	36.0
68								
91								
114								
136								
159								
182								
205								
228								

Sampling:

Samples Collected by: George Bejarano Time Started: 10:27:00 Dup Time: Time Ended: 10:31:00

Transferred to: Relinquished by: George Bejarano Date Mar 23, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
SAMPLE WAS LIGHT BROWN IN COLOR.

Fri 3-23-15

Correction factor -0.33

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 190
D (diameter) 4
d factor 1.96

Well Name WR-229A

Project Price Service Center

Date Mar 26, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 120.04 Time 12:00:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 46 1.5 69 2 92 2.5 115 3 137 3.5 160 4 183 4.5 206 5 229

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 26, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
46	1209	9.92	377	27.34	5.32	-41.5	-	22.1
69								
92								
115								
137								
160								
183								
206								
229								

Sampling:

Samples Collected by: George Bejarano Time Started: 12:05:00 Dup Time: Time Ended: 12:09:00

Transferred to: Relinquished by: George Bejarano Date Mar 26, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. LIGHT GRAY COLOR WITH SMALL BROWN FLECKS IN SAMPLE.

TM 3/26/15

Correction factor +0.81

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 192
D (diameter) 4
d factor 1.96

Well Name **WR-230A**

Project Price Service Center

Date Mar 24, 2015

Field Personnel GB/JVM

Weather SUNNY/WARM

Static Water Level 121.35 Time 12:18:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Discharge Rate(GPM)

Well Volumes (gallons):

1 46 1.5 69 2 92 2.5 115 3 138 3.5 161 4 184 4.5 207 5 230

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)*		*+/-0.1*	*+/-3%*	*+/-3%*	*+/-10%*	*+/-20 mv*		
Gallons	**Time (hrs)**	**pH**	**SpC (µS/cm)**	**Temp (C)**	**DO (mg/l)**	**ORP**	**PWL (feet)**	**Turbidity (ntu)**
46	1220	8.09	453	26.58	4.70	16.5	-	36.9
69								
92								
115								
138								
161								
184								
207								
230								

Sampling:

Samples Collected by: George Bejarano Time Started: 12:25:00 Dup Time: Time Ended: 12:29:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
SOME BLACK FLECKS IN SAMPLE.

TW 3-24-15

Correction factor +0.92

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 192
D (diameter) 4
d factor

Well Name **WR-231A**

Project Price Service Center

Date Mar 25, 2015

Field Personnel HJV/JVM

Weather CLOUDY/COOL

Static Water Level 128.09 Time 09:05:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 25, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0915	9.10	456	24.50	4.33	56.7	-	14.1
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 09:10:00 Dup Time: n/a Time Ended: 09:14:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 25, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SLIGHT PETROLEUM ODOR.

Correction factor -0.61

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 192
D (diameter) 4
d factor 1.96

Well Name **WR-232A**

Project Price Service Center

Date Mar 23, 2015

Field Personnel GB/JVM

Weather SUNNY/COOL

Static Water Level 123.55 Time 08:50:00

Totalizer: End

Sounder ID INT A

Start 0

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 45 1.5 68 2 91 2.5 114 3 134 3.5 157 4 180 4.5 203 5 226

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 23, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
45	0900	5.28	549	24.89	5.14	283.4	-	80.1
68								
91								
114								
134								
157								
180								
203								
226								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:57:00 Dup Time: Time Ended: 09:00:00

Transferred to: Relinquished by: George Bejarano Date Mar 23, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.
SAMPLE WAS LIGHT BROWN COLOR.

Correction factor +0.57

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 191
D (diameter) 4
d factor

Well Name WR-233A
Project Price Service Center
Date Mar 25, 2015
Field Personnel JVM/HJV
Weather CLOUDY/COOL

Static Water Level 148.22 Time 10:25:00
Totalizer: End
Start 0
Sounder ID INT A
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 25, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	1034	7.63	192	23.46	4.27	14.1	-	5.4
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 10:30:00 Dup Time: n/a Time Ended: 10:33:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 25, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE LIGHT GREY IN COLOR AND CONTAINING BLACK SPECTS.

Correction factor +0.84

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 192
D (diameter) 4
d factor

Well Name WR-235A
Project Price Service Center
Date Mar 25, 2015
Field Personnel JVM/HJV
Weather CLOUDY/COOL

Static Water Level 149.59 Time 09:20:00
Totalizer: End
Start 0
Sounder ID INT A
Total (gal) 0

Well Volumes (gallons):
Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 25, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0928	7.47	381	25.94	6.16	35.0	-	99.9
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: Hank Vimislik Time Started: 09:25:00 Dup Time: n/a Time Ended: 09:26:00

Transferred to: Relinquished by: Hank Vimislik Date Mar 25, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. SAMPLE BROWNISH IN COLOR.

Correction factor +1.02

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD
D (diameter)
d factor

Well Name WR-296A

Project Price Service Center

Date Mar 24, 2015

Field Personnel GB/JVM

Weather SUNNY/COOL

Static Water Level 102.65

Time 08:50:00

Totalizer: End
Start 0
Total (gal) 0

Sounder ID INT A

Well Volumes (gallons):

Discharge Rate(GPM)

1 0 1.5 0 2 0 2.5 0 3 0 3.5 0 4 0 4.5 0 5 0

Pump Time: Start
End
Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
0	0858	6.93	828	23.90	5.84	-18.4	-	7.5
0								
0								
0								
0								
0								
0								
0								
0								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:55:00 Dup Time: Time Ended: 08:58:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE. FAINT GAS ODOR IN SAMPLE.

Correction factor +0.39

CITY OF TUCSON
Environmental Services
Sampling Data Form

HP BAIL
TD 120
D (diameter) 4
d factor 1.96

Well Name **WR-298A**

Project Price Service Center

Date Mar 24, 2015

Field Personnel JVM/GB

Weather SUNNY/COOL

Static Water Level 103.18 Time 08:35:00

Totalizer: End

Start 0

Sounder ID INT A

Total (gal) 0

Well Volumes (gallons):

Discharge Rate(GPM)

1 11 1.5 17 2 23 2.5 29 3 33 3.5 39 4 45 4.5 51 5 57

Pump Time: Start

End

Total (min)

Meters and Type: ☐ YSI #1 ☐ YSI #2 ☒ YSI QS

Calibration Date: Mar 24, 2015

Parameters: *(Stable within)* *+/-0.1* *+/-3%* *+/-3%* *+/-10%* *+/-20 mv*

Gallons	Time (hrs)	pH	SpC (µS/cm)	Temp (C)	DO (mg/l)	ORP	PWL (feet)	Turbidity (ntu)
11	0844	7.45	771	23.68	5.54	88.9	-	3.8
17								
23								
29								
33								
39								
45								
51								
57								

Sampling:

Samples Collected by: George Bejarano Time Started: 08:40:00 Dup Time: Time Ended: 08:44:00

Transferred to: Relinquished by: George Bejarano Date Mar 24, 2015

Reason for Sampling: ☐ Monthly ☐ Quarterly ☐ Semi-Annual ☒ Annual ☐ Investigation

☐ **Duplicate** ☐ **GAC Treatment** ☐ **Grab Sample** ☒ **Bail Sample**

Comments: SAMPLES TO ACCUTEST. SINGLE BAIL SAMPLE.

APPENDIX D

Duplicate Samples Comparison for 2015

And Laboratory Reports and Chain of Custody Information

Duplicate Samples Comparison
for 2015

SampleDate	Contaminant	Prefix	Results	SiteInfo		SampleDate	Contaminant	Prefix	Results	SiteInfo	RPD %
3/25/2015 8:20	Benzene		5.95	PCM-517A		3/25/2015 8:24	Benzene		4.98	PCM-517A	**17.7%**
3/25/2015 8:20	Ethylbenzene		0.208	PCM-517A		3/25/2015 8:24	Ethylbenzene		0.23	PCM-517A	**10.0%**
3/25/2015 8:20	Methyl tert-butyl ether		0.247	PCM-517A		3/25/2015 8:24	Methyl tert-butyl ether		0.247	PCM-517A	0.0%
3/25/2015 8:20	Toluene		0.0142	PCM-517A		3/25/2015 8:24	Toluene		0.0128	PCM-517A	**10.4%**
3/25/2015 8:20	Xylene		0.062	PCM-517A		3/25/2015 8:24	Xylene		0.0557	PCM-517A	**10.7%**
3/19/2015 9:10	Benzene	<	0.001	PCM-535A		3/19/2015 9:14	Benzene	<	0.001	PCM-535A	0.0%
3/19/2015 9:10	Ethylbenzene	<	0.001	PCM-535A		3/19/2015 9:14	Ethylbenzene	<	0.001	PCM-535A	0.0%
3/19/2015 9:10	Methyl tert-butyl ether		0.0585	PCM-535A		3/19/2015 9:14	Methyl tert-butyl ether		0.06	PCM-535A	**2.5%**
3/19/2015 9:10	Toluene	<	0.001	PCM-535A		3/19/2015 9:14	Toluene	<	0.001	PCM-535A	0.0%
3/19/2015 9:10	Xylene	<	0.002	PCM-535A		3/19/2015 9:14	Xylene	<	0.002	PCM-535A	0.0%
3/20/2015 8:15	Benzene		0.0024	R-013A		3/20/2015 8:17	Benzene		0.0023	R-013A	**4.3%**
3/20/2015 8:15	Ethylbenzene	<	0.001	R-013A		3/20/2015 8:17	Ethylbenzene	<	0.001	R-013A	0.0%
3/20/2015 8:15	Methyl tert-butyl ether		0.217	R-013A		3/20/2015 8:17	Methyl tert-butyl ether		0.202	R-013A	**7.2%**
3/20/2015 8:15	Toluene	<	0.001	R-013A		3/20/2015 8:17	Toluene	<	0.001	R-013A	0.0%
3/20/2015 8:15	Xylene	<	0.002	R-013A		3/20/2015 8:17	Xylene	<	0.002	R-013A	0.0%
3/18/2015 8:45	Benzene	<	0.001	R-029A		3/18/2015 8:48	Benzene	<	0.001	R-029A	0.0%
3/18/2015 8:45	Ethylbenzene	<	0.001	R-029A		3/18/2015 8:48	Ethylbenzene	<	0.001	R-029A	0.0%
3/18/2015 8:45	Methyl tert-butyl ether	<	0.001	R-029A		3/18/2015 8:48	Methyl tert-butyl ether	<	0.001	R-029A	0.0%
3/18/2015 8:45	Toluene	<	0.001	R-029A		3/18/2015 8:48	Toluene	<	0.001	R-029A	0.0%
3/18/2015 8:45	Xylene	<	0.002	R-029A		3/18/2015 8:48	Xylene	<	0.002	R-029A	0.0%
3/23/2015 8:30	Benzene	<	0.001	WR-211A		3/23/2015 8:34	Benzene	<	0.001	WR-211A	0.0%
3/23/2015 8:30	Ethylbenzene	<	0.001	WR-211A		3/23/2015 8:34	Ethylbenzene	<	0.001	WR-211A	0.0%
3/23/2015 8:30	Methyl tert-butyl ether	<	0.001	WR-211A		3/23/2015 8:34	Methyl tert-butyl ether	<	0.001	WR-211A	0.0%
3/23/2015 8:30	Toluene	<	0.001	WR-211A		3/23/2015 8:34	Toluene	<	0.001	WR-211A	0.0%
3/23/2015 8:30	Xylene	<	0.002	WR-211A		3/23/2015 8:34	Xylene	<	0.002	WR-211A	0.0%
3/24/2015 8:07	1,1,1,2-Tetrachloroethar	<	0.02	WR-215A		3/24/2015 8:10	1,1,1,2-Tetrachloroethane	<	0.02	WR-215A	0.0%
3/24/2015 8:07	1,1,1-Trichloroethane	<	0.01	WR-215A		3/24/2015 8:10	1,1,1-Trichloroethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,1,2,2-Tetrachloroethar	<	0.01	WR-215A		3/24/2015 8:10	1,1,2,2-Tetrachloroethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,1,2-Trichloroethane	<	0.01	WR-215A		3/24/2015 8:10	1,1,2-Trichloroethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,1-Dichloroethane	<	0.01	WR-215A		3/24/2015 8:10	1,1-Dichloroethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,1-Dichloroethene	<	0.01	WR-215A		3/24/2015 8:10	1,1-Dichloroethene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,1-Dichloropropene	<	0.02	WR-215A		3/24/2015 8:10	1,1-Dichloropropene	<	0.02	WR-215A	0.0%
3/24/2015 8:07	1,2,3-Trichlorobenzene	<	0.04	WR-215A		3/24/2015 8:10	1,2,3-Trichlorobenzene	<	0.04	WR-215A	0.0%
3/24/2015 8:07	1,2,3-Trichloropropane	<	0.04	WR-215A		3/24/2015 8:10	1,2,3-Trichloropropane	<	0.04	WR-215A	0.0%
3/24/2015 8:07	1,2,4-Trichlorobenzene	<	0.04	WR-215A		3/24/2015 8:10	1,2,4-Trichlorobenzene	<	0.04	WR-215A	0.0%
3/24/2015 8:07	1,2,4-Trimethylbenzene		0.509	WR-215A		3/24/2015 8:10	1,2,4-Trimethylbenzene		0.543	WR-215A	**6.5%**

Duplicate Samples Comparison
for 2015

SampleDate	Contaminant	Prefix	Results	SiteInfo		SampleDate	Contaminant	Prefix	Results	SiteInfo	RPD %
3/24/2015 8:07	1,2-Dibromo-3-chloropro	<	0.04	WR-215A		3/24/2015 8:10	1,2-Dibromo-3-chloropropane	<	0.04	WR-215A	0.0%
3/24/2015 8:07	1,2-Dichlorobenzene	<	0.01	WR-215A		3/24/2015 8:10	1,2-Dichlorobenzene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,2-Dichloroethane	<	0.01	WR-215A		3/24/2015 8:10	1,2-Dichloroethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,2-Dichloropropane	<	0.01	WR-215A		3/24/2015 8:10	1,2-Dichloropropane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,3,5-Trimethylbenzene		0.108	WR-215A		3/24/2015 8:10	1,3,5-Trimethylbenzene		0.111	WR-215A	**2.7%**
3/24/2015 8:07	1,3-Dichlorobenzene	<	0.01	WR-215A		3/24/2015 8:10	1,3-Dichlorobenzene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	1,3-Dichloropropane	<	0.02	WR-215A		3/24/2015 8:10	1,3-Dichloropropane	<	0.02	WR-215A	0.0%
3/24/2015 8:07	1,4-Dichlorobenzene	<	0.01	WR-215A		3/24/2015 8:10	1,4-Dichlorobenzene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	2,2-Dichloropropane	<	0.02	WR-215A		3/24/2015 8:10	2,2-Dichloropropane	<	0.02	WR-215A	0.0%
3/24/2015 8:07	2-Hexanone	<	0.2	WR-215A		3/24/2015 8:10	2-Hexanone	<	0.2	WR-215A	0.0%
3/24/2015 8:07	Acetone	<	0.4	WR-215A		3/24/2015 8:10	Acetone	<	0.4	WR-215A	0.0%
3/24/2015 8:07	Benzene		0.0723	WR-215A		3/24/2015 8:10	Benzene		0.0684	WR-215A	**5.5%**
3/24/2015 8:07	Bromobenzene	<	0.02	WR-215A		3/24/2015 8:10	Bromobenzene	<	0.02	WR-215A	0.0%
3/24/2015 8:07	Bromochloromethane	<	0.02	WR-215A		3/24/2015 8:10	Bromochloromethane	<	0.02	WR-215A	0.0%
3/24/2015 8:07	Bromodichloromethane	<	0.01	WR-215A		3/24/2015 8:10	Bromodichloromethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Bromoform	<	0.01	WR-215A		3/24/2015 8:10	Bromoform	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Bromomethane	<	0.04	WR-215A		3/24/2015 8:10	Bromomethane	<	0.04	WR-215A	0.0%
3/24/2015 8:07	Carbon Disulfide	<	0.02	WR-215A		3/24/2015 8:10	Carbon Disulfide	<	0.02	WR-215A	0.0%
3/24/2015 8:07	Carbon tetrachloride	<	0.01	WR-215A		3/24/2015 8:10	Carbon tetrachloride	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Chlorobenzene	<	0.01	WR-215A		3/24/2015 8:10	Chlorobenzene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Chloroethane	<	0.01	WR-215A		3/24/2015 8:10	Chloroethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Chloroform	<	0.01	WR-215A		3/24/2015 8:10	Chloroform	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Chloromethane	<	0.02	WR-215A		3/24/2015 8:10	Chloromethane	<	0.02	WR-215A	0.0%
3/24/2015 8:07	cis-1,2-dichloroethene	<	0.01	WR-215A		3/24/2015 8:10	cis-1,2-dichloroethene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	cis-1,3-dichloropropene	<	0.01	WR-215A		3/24/2015 8:10	cis-1,3-dichloropropene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Dibromochloromethane	<	0.01	WR-215A		3/24/2015 8:10	Dibromochloromethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Dibromomethane	<	0.02	WR-215A		3/24/2015 8:10	Dibromomethane	<	0.02	WR-215A	0.0%
3/24/2015 8:07	Dichlorodifluoromethane	<	0.01	WR-215A		3/24/2015 8:10	Dichlorodifluoromethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Ethyl Tert Butyl Ether	<	0.04	WR-215A		3/24/2015 8:10	Ethyl Tert Butyl Ether	<	0.04	WR-215A	0.0%
3/24/2015 8:07	Ethylbenzene		0.334	WR-215A		3/24/2015 8:10	Ethylbenzene		0.335	WR-215A	0.3%
3/24/2015 8:07	Ethylene Dibromide	<	0.02	WR-215A		3/24/2015 8:10	Ethylene Dibromide	<	0.02	WR-215A	0.0%
3/24/2015 8:07	Hexachlorobutadiene	<	0.04	WR-215A		3/24/2015 8:10	Hexachlorobutadiene	<	0.04	WR-215A	0.0%
3/24/2015 8:07	Isopropylbenzene		0.0219	WR-215A		3/24/2015 8:10	Isopropylbenzene		0.0248	WR-215A	**12.4%**
3/24/2015 8:07	Methyl Ethyl Ketone	<	0.2	WR-215A		3/24/2015 8:10	Methyl Ethyl Ketone	<	0.2	WR-215A	0.0%
3/24/2015 8:07	Methyl Isobutyl Ketone	<	0.2	WR-215A		3/24/2015 8:10	Methyl Isobutyl Ketone	<	0.2	WR-215A	0.0%
3/24/2015 8:07	Methyl tert-butyl ether		1.75	WR-215A		3/24/2015 8:10	Methyl tert-butyl ether		1.65	WR-215A	**5.9%**
3/24/2015 8:07	Methylene chloride	<	0.1	WR-215A		3/24/2015 8:10	Methylene chloride	<	0.1	WR-215A	0.0%
3/24/2015 8:07	Naphthalene		0.262	WR-215A		3/24/2015 8:10	Naphthalene		0.263	WR-215A	0.4%
3/24/2015 8:07	n-Butyl benzene	<	0.04	WR-215A		3/24/2015 8:10	n-Butyl benzene	<	0.04	WR-215A	0.0%
3/24/2015 8:07	o-Chlorotoluene	<	0.04	WR-215A		3/24/2015 8:10	o-Chlorotoluene	<	0.04	WR-215A	0.0%
3/24/2015 8:07	p-Chlorotoluene	<	0.04	WR-215A		3/24/2015 8:10	p-Chlorotoluene	<	0.04	WR-215A	0.0%

Duplicate Samples Comparison
for 2015

SampleDate	Contaminant	Prefix	Results	SiteInfo		SampleDate	Contaminant	Prefix	Results	SiteInfo	RPD %
3/24/2015 8:07	p-Isopropyltoluene	<	0.04	WR-215A		3/24/2015 8:10	p-Isopropyltoluene	<	0.04	WR-215A	0.0%
3/24/2015 8:07	Propylbenzene		0.0707	WR-215A		3/24/2015 8:10	Propylbenzene		0.0818	WR-215A	**14.6%**
3/24/2015 8:07	sec-Butyl benzene	<	0.04	WR-215A		3/24/2015 8:10	sec-Butyl benzene	<	0.04	WR-215A	0.0%
3/24/2015 8:07	Styrene	<	0.02	WR-215A		3/24/2015 8:10	Styrene	<	0.02	WR-215A	0.0%
3/24/2015 8:07	tert-Butanol (TBA)	<	0.2	WR-215A		3/24/2015 8:10	tert-Butanol (TBA)	<	0.2	WR-215A	0.0%
3/24/2015 8:07	tert-Butyl benzene	<	0.04	WR-215A		3/24/2015 8:10	tert-Butyl benzene	<	0.04	WR-215A	0.0%
3/24/2015 8:07	Tetrachloroethene	<	0.01	WR-215A		3/24/2015 8:10	Tetrachloroethene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Toluene	<	0.02	WR-215A		3/24/2015 8:10	Toluene	<	0.02	WR-215A	0.0%
3/24/2015 8:07	trans-1,2-dichloroethene	<	0.01	WR-215A		3/24/2015 8:10	trans-1,2-dichloroethene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	trans-1,3-dichloroproper	<	0.01	WR-215A		3/24/2015 8:10	trans-1,3-dichloropropene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Trichloroethene	<	0.01	WR-215A		3/24/2015 8:10	Trichloroethene	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Trichlorofluoromethane	<	0.01	WR-215A		3/24/2015 8:10	Trichlorofluoromethane	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Vinyl chloride	<	0.01	WR-215A		3/24/2015 8:10	Vinyl chloride	<	0.01	WR-215A	0.0%
3/24/2015 8:07	Xylene		0.358	WR-215A		3/24/2015 8:10	Xylene		0.352	WR-215A	**1.7%**

Northern California
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04/10/15

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

Accutest Job Number: C39110

Sampling Date: 03/26/15

Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Richard Byrd

Total number of pages in report: **18**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Elvin Kumar 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 5
Section 4: Sample Results 6
4.1: C39110-1: R-044A 7
4.2: C39110-2: R-045A 8
4.3: C39110-3: WR-229A 9
4.4: C39110-4: TRIP BLANK 10
Section 5: Misc. Forms 11
5.1: Chain of Custody 12
Section 6: GC/MS Volatiles - QC Data Summaries 14
6.1: Method Blank Summary 15
6.2: Blank Spike/Blank Spike Duplicate Summary 16
6.3: Laboratory Control Sample Summary 17
6.4: Matrix Spike/Matrix Spike Duplicate Summary 18

Sample Summary

City of Tucson Environmental Services

Job No: C39110

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
C39110-1	03/26/15	11:25 GB	03/27/15	AQ	Ground Water	R-044A
C39110-2	03/26/15	11:42 GB	03/27/15	AQ	Ground Water	R-045A
C39110-3	03/26/15	12:05 GB	03/27/15	AQ	Ground Water	WR-229A
C39110-4	03/26/15	00:00 GB	03/27/15	AQ	Trip Blank Water	TRIP BLANK

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	City of Tucson Environmental Services	**Job No**	C39110
Site:	Price Service Center	**Report Date**	4/10/2015 11:37:54 P

3 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/26/2015 and were received at Accutest on 03/27/2015 properly preserved, at 4.1 Deg. C and intact. These Samples received an Accutest job number of C39110. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ	**Batch ID:** VR1266

- Sample(s) C39014-8MS, C39014-8MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C39110
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/26/15

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

C39110-1 R-044A

No hits reported in this sample.

C39110-2 R-045A

No hits reported in this sample.

C39110-3 WR-229A

No hits reported in this sample.

C39110-4 TRIP BLANK

No hits reported in this sample.

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	R-044A		
Lab Sample ID:	C39110-1	Date Sampled:	03/26/15
Matrix:	AQ - Ground Water	Date Received:	03/27/15
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33551.D	1	03/31/15	BQ	n/a	n/a	VR1266
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-045A		
Lab Sample ID:	C39110-2	Date Sampled:	03/26/15
Matrix:	AQ - Ground Water	Date Received:	03/27/15
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33544.D	1	03/31/15	BQ	n/a	n/a	VR1266
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-229A		
Lab Sample ID:	C39110-3	Date Sampled:	03/26/15
Matrix:	AQ - Ground Water	Date Received:	03/27/15
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33545.D	1	03/31/15	BQ	n/a	n/a	VR1266
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39110-4	Date Sampled:	03/26/15
Matrix:	AQ - Trip Blank Water	Date Received:	03/27/15
Method:	SW846 8260B	Percent Solids:	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33546.D	1	03/31/15	BQ	n/a	n/a	VR1266
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

PHOENIX

CHAIN OF CUSTODY

ACCUTEST® LABORATORIES

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 806692106194 | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C C39110

Client / Reporting Information

Company Name: City of Tucson
Address: P O Box 27210
City: Tucson State: AZ Zip: 85726
Project Contact: Lori Ehman
Phone #: 520 791 3175
Samplers's Name: L Byrum

Project Information

Project Name: Price Service Center
Street:
City: State:
Project #: P O 1064
EMAIL:
Client Purchase Order #:

Requested Analysis

BTEX/MTBE

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-OI
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	BTEX/MTBE	LAB USE ONLY
1	R-044A	3/26/15	1125	CB	GW	3									X	
2	R-045A	3/26/15	1142	CB	GW	3									X	
3	WR-229A	3/26/15	1205	CB	GW	3									X	
4	TRIP BLANK														X	

Turnaround Time (Business days)

Approved By / Date:

- [ ] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	L Byrum	3/26/15 1258	Yulio Smith	Yulio Smith	3/26/15 1602	Fedex
2						
3	FEDEX	3/27/15 0945				
4						
5						

Custody Seal # Y | Appropriate Bottle / Pres. Y / N | Headspace Y / N | On Ice Y / N | Cooler Temp 4.1 / 4.6
Labels match Coc? Y / N | Separate Receiving Check List used: Y / N

5.1 5

C39110: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C39110 **Client:** CITY OF TUCSON **Project:** PRICE SERVICE CENTER

Date / Time Received: 3/27/2015 9:45:00 AM **Delivery Method:** FedEx **Airbill #'s:** 806632106194

Cooler Temps (Initial/Adjusted): #1: (4.1/4.1);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR1;	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

5.1 5

C39110: Chain of Custody
Page 2 of 2

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C39110
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1266-MB	R33539.D	1	03/31/15	BQ	n/a	n/a	VR1266

The QC reported here applies to the following samples: Method: SW846 8260B

C39110-1, C39110-2, C39110-3, C39110-4

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	70-130%
2037-26-5	Toluene-D8	94%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39110
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1266-BS	R33536.D	1	03/31/15	BQ	n/a	n/a	VR1266
VR1266-BSD	R33537.D	1	03/31/15	BQ	n/a	n/a	VR1266

The QC reported here applies to the following samples: Method: SW846 8260B

C39110-1, C39110-2, C39110-3, C39110-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.4	97	19.4	97	0	77-122/25
100-41-4	Ethylbenzene	20	18.6	93	18.4	92	1	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.0	100	20.8	104	4	73-132/17
108-88-3	Toluene	20	18.2	91	18.2	91	0	75-122/17
1330-20-7	Xylene (total)	60	54.1	90	54.1	90	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	103%	70-130%
2037-26-5	Toluene-D8	95%	94%	70-130%
460-00-4	4-Bromofluorobenzene	101%	100%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39110
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1266-LCS	R33538.D	1	03/31/15	BQ	n/a	n/a	VR1266

The QC reported here applies to the following samples: Method: SW846 8260B

C39110-1, C39110-2, C39110-3, C39110-4

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39110
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39014-8MS	R33559.D	5	03/31/15	BQ	n/a	n/a	VR1266
C39014-8MSD	R33560.D	5	03/31/15	BQ	n/a	n/a	VR1266
C39014-8	R33554.D	5	03/31/15	BQ	n/a	n/a	VR1266

The QC reported here applies to the following samples: Method: SW846 8260B

C39110-1, C39110-2, C39110-3, C39110-4

CAS No.	Compound	C39014-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		100	95.0	95	100	99.3	99	4	77-122/16
100-41-4	Ethylbenzene	ND		100	89.4	89	100	92.5	93	3	76-126/17
1634-04-4	Methyl Tert Butyl Ether	10.7		100	109	98	100	115	104	5	73-132/17
108-88-3	Toluene	ND		100	87.4	87	100	90.6	91	4	75-122/17
1330-20-7	Xylene (total)	ND		300	259	86	300	269	90	4	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39014-8	Limits
1868-53-7	Dibromofluoromethane	99%	100%	99%	70-130%
2037-26-5	Toluene-D8	94%	93%	93%	70-130%
460-00-4	4-Bromofluorobenzene	102%	102%	97%	70-130%

* = Outside of Control Limits.

Northern California
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04/02/15

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

Accutest Job Number: C38974

Sampling Date: 03/18/15

Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Richard Byrd

Total number of pages in report: **43**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Elvin Kumar 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 5
Section 4: Sample Results 7
4.1: C38974-1: R-029A 8
4.2: C38974-2: R-029A(DUP) 9
4.3: C38974-3: R-049A 10
4.4: C38974-4: R-099A 11
4.5: C38974-5: R-048A 12
4.6: C38974-6: R-033A 13
4.7: C38974-7: R-034A 14
4.8: C38974-8: R-036A 15
4.9: C38974-9: R-050A 16
4.10: C38974-10: WR-212A 17
4.11: C38974-11: WR-224A 18
4.12: C38974-12: TRIP BLANK 19
Section 5: Misc. Forms 20
5.1: Arizona Qualifiers 21
5.2: Chain of Custody 22
Section 6: GC/MS Volatiles - QC Data Summaries 25
6.1: Method Blank Summary 26
6.2: Blank Spike/Blank Spike Duplicate Summary 31
6.3: Laboratory Control Sample Summary 36
6.4: Matrix Spike/Matrix Spike Duplicate Summary 39

Sample Summary

City of Tucson Environmental Services

Job No: C38974

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C38974-1	03/18/15	08:45 GB	03/19/15	AQ	Ground Water	R-029A
C38974-2	03/18/15	08:48 GB	03/19/15	AQ	Ground Water	R-029A(DUP)
C38974-3	03/18/15	09:07 GB	03/19/15	AQ	Ground Water	R-049A
C38974-4	03/18/15	09:23 GB	03/19/15	AQ	Ground Water	R-099A
C38974-5	03/18/15	09:38 GB	03/19/15	AQ	Ground Water	R-048A
C38974-6	03/18/15	09:58 GB	03/19/15	AQ	Ground Water	R-033A
C38974-7	03/18/15	10:17 GB	03/19/15	AQ	Ground Water	R-034A
C38974-8	03/18/15	10:42 GB	03/19/15	AQ	Ground Water	R-036A
C38974-9	03/18/15	11:15 GB	03/19/15	AQ	Ground Water	R-050A
C38974-10	03/18/15	11:40 GB	03/19/15	AQ	Ground Water	WR-212A
C38974-11	03/18/15	12:08 GB	03/19/15	AQ	Ground Water	WR-224A
C38974-12	03/18/15	00:00 GB	03/19/15	AQ	Trip Blank Water	TRIP BLANK

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	City of Tucson Environmental Services	**Job No**	C38974
Site:	Price Service Center	**Report Date**	4/2/2015 12:07:17 AM

11 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/18/2015 and were received at Accutest on 03/19/2015 properly preserved, at 3.2 Deg. C and intact. These Samples received an Accutest job number of C38974. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VQ1206

- Sample(s) C38974-6MS, C38974-6MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VR1257

- Sample(s) C38955-2MS, C38955-2MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Benzene, Ethylbenzene, Toluene, Xylene (total) are outside laboratory control limits. The associated blank spike recoveries were acceptable. The sample spiked for the MS/MSD was not one of the samples from this SDG/work order; therefore, there are no data quality issues that affect this sample set.

Matrix: AQ **Batch ID:** VU1069

- Sample(s) C38974-9MS, C38974-9MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VU1070

- Sample(s) C38976-4MS, C38976-4MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VV940

- Sample(s) C38967-2MS, C38967-2MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C38974
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/18/15

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C38974-1	**R-029A**					
No hits reported in this sample.						
C38974-2	**R-029A(DUP)**					
No hits reported in this sample.						
C38974-3	**R-049A**					
Toluene		1.5	1.0		ug/l	SW846 8260B
Xylene (total)		2.3	2.0		ug/l	SW846 8260B
C38974-4	**R-099A**					
Ethylbenzene		8.9	1.0		ug/l	SW846 8260B
Xylene (total)		3.4	2.0		ug/l	SW846 8260B
C38974-5	**R-048A**					
Methyl Tert Butyl Ether		2.0	1.0		ug/l	SW846 8260B
C38974-6	**R-033A**					
Methyl Tert Butyl Ether [a]		11600	200		ug/l	SW846 8260B
C38974-7	**R-034A**					
Methyl Tert Butyl Ether [a]		794	20		ug/l	SW846 8260B
C38974-8	**R-036A**					
Ethylbenzene		2.6	1.0		ug/l	SW846 8260B
Xylene (total)		3.3	2.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		420	10		ug/l	SW846 8260B
C38974-9	**R-050A**					
Benzene		14.3	1.0		ug/l	SW846 8260B
Toluene		7.7	1.0		ug/l	SW846 8260B
Ethylbenzene [a]		509	10		ug/l	SW846 8260B
Xylene (total) [a]		963	20		ug/l	SW846 8260B
Methyl Tert Butyl Ether		28.5	1.0		ug/l	SW846 8260B

Summary of Hits

Job Number: C38974
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/18/15

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C38974-10	**WR-212A**					
Benzene		3.3	1.0		ug/l	SW846 8260B
Toluene		1.5	1.0		ug/l	SW846 8260B
Ethylbenzene		62.8	1.0		ug/l	SW846 8260B
Xylene (total)		3.6	2.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether		79.2	1.0		ug/l	SW846 8260B
C38974-11	**WR-224A**					
Ethylbenzene		11.2	1.0		ug/l	SW846 8260B
Xylene (total)		2.0	2.0		ug/l	SW846 8260B
C38974-12	**TRIP BLANK**					

No hits reported in this sample.

(a) AZ:D2

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	R-029A		
Lab Sample ID:	C38974-1	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33307.D	1	03/23/15	BQ	n/a	n/a	VR1257
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-029A(DUP)		
Lab Sample ID:	C38974-2	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33308.D	1	03/23/15	BQ	n/a	n/a	VR1257
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-049A		
Lab Sample ID:	C38974-3	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U25958.D	1	03/21/15	JC	n/a	n/a	VU1069
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	1.5	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	2.3	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-099A		
Lab Sample ID:	C38974-4	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U25959.D	1	03/21/15	JC	n/a	n/a	VU1069
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	8.9	1.0	ug/l	
1330-20-7	Xylene (total)	3.4	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-048A		
Lab Sample ID:	C38974-5	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U25960.D	1	03/21/15	JC	n/a	n/a	VU1069
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-033A		
Lab Sample ID:	C38974-6	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q27829.D	100	03/21/15	EA	n/a	n/a	VQ1206
Run #2 [a]	V23644.D	200	03/23/15	EA	n/a	n/a	VV940

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	100	ug/l	
108-88-3	Toluene	ND	100	ug/l	
100-41-4	Ethylbenzene	ND	100	ug/l	
1330-20-7	Xylene (total)	ND	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	11600 [b]	200	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	112%	100%	70-130%
2037-26-5	Toluene-D8	107%	97%	70-130%
460-00-4	4-Bromofluorobenzene	105%	100%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-034A		
Lab Sample ID:	C38974-7	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	R33311.D	4	03/23/15	BQ	n/a	n/a	VR1257
Run #2 [a]	R33309.D	20	03/23/15	BQ	n/a	n/a	VR1257

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	4.0	ug/l	
108-88-3	Toluene	ND	4.0	ug/l	
100-41-4	Ethylbenzene	ND	4.0	ug/l	
1330-20-7	Xylene (total)	ND	8.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	794 [b]	20	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%	93%	70-130%
2037-26-5	Toluene-D8	102%	102%	70-130%
460-00-4	4-Bromofluorobenzene	96%	95%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-036A		
Lab Sample ID:	C38974-8	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U25993.D	1	03/23/15	JC	n/a	n/a	VU1070
Run #2 [a]	U25961.D	10	03/21/15	JC	n/a	n/a	VU1069

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	2.6	1.0	ug/l	
1330-20-7	Xylene (total)	3.3	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	420 [b]	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	102%	70-130%
2037-26-5	Toluene-D8	97%	100%	70-130%
460-00-4	4-Bromofluorobenzene	100%	95%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-050A		
Lab Sample ID:	C38974-9	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U25994.D	1	03/23/15	JC	n/a	n/a	VU1070
Run #2 [a]	U25962.D	10	03/21/15	JC	n/a	n/a	VU1069

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	14.3	1.0	ug/l	
108-88-3	Toluene	7.7	1.0	ug/l	
100-41-4	Ethylbenzene	509 [b]	10	ug/l	
1330-20-7	Xylene (total)	963 [b]	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	28.5	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	99%	70-130%
2037-26-5	Toluene-D8	95%	96%	70-130%
460-00-4	4-Bromofluorobenzene	103%	95%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-212A		
Lab Sample ID:	C38974-10	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U25963.D	1	03/21/15	JC	n/a	n/a	VU1069
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	3.3	1.0	ug/l	
108-88-3	Toluene	1.5	1.0	ug/l	
100-41-4	Ethylbenzene	62.8	1.0	ug/l	
1330-20-7	Xylene (total)	3.6	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	79.2	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-224A		
Lab Sample ID:	C38974-11	**Date Sampled:**	03/18/15
Matrix:	AQ - Ground Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U25964.D	1	03/21/15	JC	n/a	n/a	VU1069
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	11.2	1.0	ug/l	
1330-20-7	Xylene (total)	2.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C38974-12	**Date Sampled:**	03/18/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/19/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	U25946.D	1	03/21/15	JC	n/a	n/a	VU1069
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	83%		70-130%
460-00-4	4-Bromofluorobenzene	88%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Northern California
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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.

PHOENIX

ACCUTEST® LABORATORIES

CHAIN OF CUSTODY

(1 of 2)

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 8066 3210 5541

Bottle Order Control #

Accutest Quote #

Accutest NC Job #: C C38974

Client / Reporting Information

Company Name: City of Tucson

Address: P.O. Box 27210

City State Zip: Tucson AZ 85726

Project Contact: Lori Ehman

Phone #: 520-791-3175

Samplers's Name:

Project Information

Project Name: PRICE SERVICE CENTER

Street:

City State:

Project #: PO 1064

EMAIL:

Client Purchase Order #:

Requested Analysis

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	NaHSO	HCSO4	NONE	NaHSO4	MEOH	ENCORE	BTEX/MTBE
1	R-029A	3/18/15	0845	GB	GW	3									X
2	R-029A(dup)	3/18/15	0848	GB	GW	3									X
3	R-049A	3/18/15	0907	GB	GW	3									X
4	R-099A	3/18/15	0923	GB	GW	3									X
5	R-048A	3/18/15	0938	GB	GW	3									X
6	R-033A	3/18/15	0958	GB	GW	3									X
7	R-034A	3/18/15	1017	GB	GW	3									X
8	R-036A	3/18/15	1042	GB	GW	3									X
9	R-050A	3/18/15	1115	GB	GW	3									X
10	WR-212A	3/18/15	1140	GB	GW	3									X

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-OJ; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

LAB USE ONLY

Turnaround Time (Business days)

Approved By / Date:

- [ ] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULT I - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	G Byrum	3/18/15 1339	1 [illegible]	2 [illegible]	3/18/15 1700	2 Fedex
	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
3	FEDEX	3/19/15 0920	3 [illegible]	4		4
	Relinquished by:	Date Time:	Received By:	Custody Seal #	Appropriate Bottle / Pres. Y/N	Headspace Y/N	On Ice Y/N	Cooler Temp.
5			5	Y	Labels match Coc? Y / N	Separate Receiving Check List used: Y / N		3.2/3.2

5.2 5

C38974: Chain of Custody

Page 1 of 3

PHOENIX

CHAIN OF CUSTODY (2 of 2)

ACCUTEST® LABORATORIES

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 806632105511
Bottle Order Control #
Accutest Quote #
Accutest NC Job #: C C38974

Client / Reporting Information

Company Name: City of Tucson
Address: P.O. Box 27210
City: Tucson State: AZ Zip: 85726
Project Contact: Lori Ehman
Phone #: 520-791-3175
Samplers's Name:

Project Information

Project Name: PRICE SERVICE CENTER
Street:
City: State:
Project #: PO 1064
EMAIL:
Client Purchase Order #:

Requested Analysis: 8260D

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-OI; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	Na2S2O3	NaOH	ZnOAc	8260D	LAB USE ONLY
11	WR-224A	3/18/15	1200	GB	GW	3									X	
12	TRIP BLANK														X	

Turnaround Time (Business days)

Approved By / Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker
- EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	G Bynum	3/18/15 1339	1 [signature]	2 [signature]	3/18/15 1700	2 Fedex
3	FEDEX	3/19/15 0920	3 [signature]	4	Date Time:	4 Received By:
5	Relinquished by:	Date Time:	Received By: 5	Custody Seal # Y	Appropriate Bottle / Pres. Y/N; Labels match Coc? Y / N	Headspace Y/N; Separate Receiving Check List used: Y / N; On Ice Y/N; Cooler Temp. ___ °C

5.2 5

C38974: Chain of Custody
Page 2 of 3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C38974 **Client:** CITY OF TUCSON **Project:** PRICE SERVICE CENTER

Date / Time Received: 3/19/2015 9:20:00 AM **Delivery Method:** FedEx **Airbill #'s:** 806632105511

Cooler Temps (Initial/Adjusted): #1: (3.2/3.2);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR1;	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

5.2

5

C38974: Chain of Custody
Page 3 of 3

Northern California
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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1069-MB	U25945.D	1	03/21/15	JC	n/a	n/a	VU1069

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-3, C38974-4, C38974-5, C38974-8, C38974-9, C38974-10, C38974-11, C38974-12

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	107%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	91%	70-130%

Method Blank Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1206-MB	Q27815.D	1	03/21/15	EA	n/a	n/a	VQ1206

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-6

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

Method Blank Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1070-MB	U25975.D	1	03/23/15	JC	n/a	n/a	VU1070

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-8, C38974-9

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	92%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV940-MB	V23638.D	1	03/23/15	EA	n/a	n/a	VV940

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-6

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1257-MB	R33293.D	1	03/23/15	BQ	n/a	n/a	VR1257

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-1, C38974-2, C38974-7

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	84%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	92%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1069-BS	U25941.D	1	03/20/15	JC	n/a	n/a	VU1069
VU1069-BSD	U25942.D	1	03/20/15	JC	n/a	n/a	VU1069

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-3, C38974-4, C38974-5, C38974-8, C38974-9, C38974-10, C38974-11, C38974-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	21.7	109	21.7	109	0	77-122/25
100-41-4	Ethylbenzene	20	23.3	117	23.0	115	1	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	22.5	113	23.3	117	3	73-132/17
108-88-3	Toluene	20	23.0	115	22.6	113	2	75-122/17
1330-20-7	Xylene (total)	60	69.1	115	68.1	114	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	104%	70-130%
2037-26-5	Toluene-D8	100%	98%	70-130%
460-00-4	4-Bromofluorobenzene	101%	99%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1206-BS	Q27812.D	1	03/20/15	EA	n/a	n/a	VQ1206
VQ1206-BSD	Q27813.D	1	03/21/15	EA	n/a	n/a	VQ1206

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	20.3	102	21.2	106	4	77-122/25
100-41-4	Ethylbenzene	20	20.5	103	21.3	107	4	76-126/17
108-88-3	Toluene	20	20.0	100	21.0	105	5	75-122/17
1330-20-7	Xylene (total)	60	59.6	99	62.7	105	5	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	105%	101%	70-130%
2037-26-5	Toluene-D8	102%	100%	70-130%
460-00-4	4-Bromofluorobenzene	101%	99%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1070-BS	U25972.D	1	03/23/15	JC	n/a	n/a	VU1070
VU1070-BSD	U25973.D	1	03/23/15	JC	n/a	n/a	VU1070

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-8, C38974-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	22.7	114	22.6	113	0	77-122/25
100-41-4	Ethylbenzene	20	23.9	120	24.1	121	1	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	24.6	123	24.8	124	1	73-132/17
108-88-3	Toluene	20	23.5	118	23.8	119	1	75-122/17
1330-20-7	Xylene (total)	60	70.8	118	71.4	119	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	100%	70-130%
2037-26-5	Toluene-D8	97%	97%	70-130%
460-00-4	4-Bromofluorobenzene	100%	101%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV940-BS	V23635.D	1	03/23/15	EA	n/a	n/a	VV940
VV940-BSD	V23636.D	1	03/23/15	EA	n/a	n/a	VV940

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	20	22.2	111	21.9	110	1	73-132/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	99%	70-130%
2037-26-5	Toluene-D8	97%	99%	70-130%
460-00-4	4-Bromofluorobenzene	99%	100%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1257-BS	R33290.D	1	03/23/15	BQ	n/a	n/a	VR1257
VR1257-BSD	R33291.D	1	03/23/15	BQ	n/a	n/a	VR1257

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-1, C38974-2, C38974-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.8	99	19.8	99	0	77-122/25
100-41-4	Ethylbenzene	20	21.2	106	20.8	104	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	16.1	81	16.9	85	5	73-132/17
108-88-3	Toluene	20	21.1	106	20.7	104	2	75-122/17
1330-20-7	Xylene (total)	60	63.2	105	62.5	104	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	88%	90%	70-130%
2037-26-5	Toluene-D8	101%	100%	70-130%
460-00-4	4-Bromofluorobenzene	95%	95%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1069-LCS	U25944.D	1	03/21/15	JC	n/a	n/a	VU1069

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-3, C38974-4, C38974-5, C38974-8, C38974-9, C38974-10, C38974-11, C38974-12

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	92%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1206-LCS	Q27814.D	1	03/21/15	EA	n/a	n/a	VQ1206

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-6

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV940-LCS	V23637.D	1	03/23/15	EA	n/a	n/a	VV940

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-6

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	97%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C38974-6MS	Q27830.D	100	03/21/15	EA	n/a	n/a	VQ1206
C38974-6MSD	Q27831.D	100	03/21/15	EA	n/a	n/a	VQ1206
C38974-6 [a]	Q27829.D	100	03/21/15	EA	n/a	n/a	VQ1206

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-6

CAS No.	Compound	C38974-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2000	2150	108	2000	2140	107	0	77-122/16
100-41-4	Ethylbenzene	ND		2000	2190	110	2000	2170	109	1	76-126/17
108-88-3	Toluene	ND		2000	2080	104	2000	2100	105	1	75-122/17
1330-20-7	Xylene (total)	ND		6000	6300	105	6000	6310	105	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C38974-6	Limits
1868-53-7	Dibromofluoromethane	110%	103%	112%	70-130%
2037-26-5	Toluene-D8	102%	101%	107%	70-130%
460-00-4	4-Bromofluorobenzene	105%	100%	105%	70-130%

(a) AZ:D2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C38974-9MS	U25965.D	10	03/21/15	JC	n/a	n/a	VU1069
C38974-9MSD	U25966.D	10	03/21/15	JC	n/a	n/a	VU1069
C38974-9 [a]	U25962.D	10	03/21/15	JC	n/a	n/a	VU1069

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-3, C38974-4, C38974-5, C38974-8, C38974-9, C38974-10, C38974-11, C38974-12

CAS No.	Compound	C38974-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	10.9		200	224	107	200	223	106	0	77-122/16
100-41-4	Ethylbenzene	509		200	736	114	200	737	114	0	76-126/17
1634-04-4	Methyl Tert Butyl Ether	23.2		200	258	117	200	258	117	0	73-132/17
108-88-3	Toluene	6.6		200	230	112	200	232	113	1	75-122/17
1330-20-7	Xylene (total)	963		600	1680	120	600	1680	120	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C38974-9	Limits
1868-53-7	Dibromofluoromethane	97%	97%	99%	70-130%
2037-26-5	Toluene-D8	97%	97%	96%	70-130%
460-00-4	4-Bromofluorobenzene	100%	99%	95%	70-130%

(a) AZ:D2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C38976-4MS	U25995.D	50	03/23/15	JC	n/a	n/a	VU1070
C38976-4MSD	U25996.D	50	03/23/15	JC	n/a	n/a	VU1070
C38976-4	U25991.D	50	03/23/15	JC	n/a	n/a	VU1070

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-8, C38974-9

CAS No.	Compound	C38976-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	2380		1000	3220	84	1000	3230	85	0	77-122/16
100-41-4	Ethylbenzene	118		1000	1310	119	1000	1310	119	0	76-126/17
1634-04-4	Methyl Tert Butyl Ether	49.8		1000	1350	130	1000	1300	125	4	73-132/17
108-88-3	Toluene	ND		1000	1170	117	1000	1180	118	1	75-122/17
1330-20-7	Xylene (total)	53.1		3000	3570	117	3000	3580	118	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C38976-4	Limits
1868-53-7	Dibromofluoromethane	103%	100%	108%	70-130%
2037-26-5	Toluene-D8	96%	96%	97%	70-130%
460-00-4	4-Bromofluorobenzene	103%	102%	91%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C38967-2MS	V23655.D	1	03/23/15	EA	n/a	n/a	VV940
C38967-2MSD	V23656.D	1	03/23/15	EA	n/a	n/a	VV940
C38967-2	V23654.D	1	03/23/15	EA	n/a	n/a	VV940

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-6

CAS No.	Compound	C38967-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		20	21.8	109	20	21.5	108	1	73-132/17

CAS No.	Surrogate Recoveries	MS	MSD	C38967-2	Limits
1868-53-7	Dibromofluoromethane	100%	100%	100%	70-130%
2037-26-5	Toluene-D8	96%	98%	98%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	100%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38974
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C38955-2MS	R33313.D	1	03/23/15	BQ	n/a	n/a	VR1257
C38955-2MSD	R33314.D	1	03/23/15	BQ	n/a	n/a	VR1257
C38955-2	R33300.D	1	03/23/15	BQ	n/a	n/a	VR1257

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38974-1, C38974-2, C38974-7

CAS No.	Compound	C38955-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1.0 U		20	26.8	134* [a]	20	28.4	142* [a]	6	77-122/16
100-41-4	Ethylbenzene	1.0 U		20	28.8	144* [a]	20	29.6	148* [a]	3	76-126/17
1634-04-4	Methyl Tert Butyl Ether	1.0 U		20	21.2	106	20	22.4	112	6	73-132/17
108-88-3	Toluene	1.0 U		20	28.5	143* [a]	20	29.6	148* [a]	4	75-122/17
1330-20-7	Xylene (total)	2.0 U		60	82.8	138* [a]	60	83.0	138* [a]	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C38955-2	Limits
1868-53-7	Dibromofluoromethane	87%	87%	86%	70-130%
2037-26-5	Toluene-D8	102%	101%	102%	70-130%
460-00-4	4-Bromofluorobenzene	96%	94%	92%	70-130%

(a) Outside laboratory control limits. AZ:M1

* = Outside of Control Limits.

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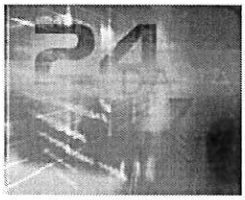
04/04/15



Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

Accutest Job Number: C38998

Sampling Date: 03/19/15

Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Richard Byrd

Total number of pages in report: **36**

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Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Elvin Kumar 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 5
Section 4: Sample Results 6
4.1: C38998-1: PCM-508A 7
4.2: C38998-2: PCM-508B 8
4.3: C38998-3: PCM-535A 9
4.4: C38998-4: PCM-535A DUP 10
4.5: C38998-5: R-012A 11
4.6: C38998-6: R-021A 12
4.7: C38998-7: WR-209A 13
4.8: C38998-8: R-016A 14
4.9: C38998-9: R-022A 15
4.10: C38998-10: TRIP BLANK 16
Section 5: Misc. Forms 17
5.1: Arizona Qualifiers 18
5.2: Chain of Custody 19
Section 6: GC/MS Volatiles - QC Data Summaries 21
6.1: Method Blank Summary 22
6.2: Blank Spike/Blank Spike Duplicate Summary 26
6.3: Laboratory Control Sample Summary 30
6.4: Matrix Spike/Matrix Spike Duplicate Summary 33

Sample Summary

City of Tucson Environmental Services

Job No: C38998

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C38998-1	03/19/15	08:40 GB	03/20/15	AQ	Ground Water	PCM-508A
C38998-2	03/19/15	08:55 GB	03/20/15	AQ	Ground Water	PCM-508B
C38998-3	03/19/15	09:10 GB	03/20/15	AQ	Ground Water	PCM-535A
C38998-4	03/19/15	09:14 GB	03/20/15	AQ	Ground Water	PCM-535A DUP
C38998-5	03/19/15	09:37 GB	03/20/15	AQ	Ground Water	R-012A
C38998-6	03/19/15	10:03 GB	03/20/15	AQ	Ground Water	R-021A
C38998-7	03/19/15	10:20 GB	03/20/15	AQ	Ground Water	WR-209A
C38998-8	03/19/15	10:35 GB	03/20/15	AQ	Ground Water	R-016A
C38998-9	03/19/15	10:50 GB	03/20/15	AQ	Ground Water	R-022A
C38998-10	03/19/15	00:00 GB	03/20/15	AQ	Trip Blank Water	TRIP BLANK

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	City of Tucson Environmental Services	**Job No**	C38998
Site:	Price Service Center	**Report Date**	4/4/2015 12:11:53 AM

9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/19/2015 and were received at Accutest on 03/20/2015 properly preserved, at 2.9 Deg. C and intact. These Samples received an Accutest job number of C38998. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VU1072

- Sample(s) C38998-6MS, C38998-6MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Methyl Tert Butyl Ether are outside control limits due to high level in sample relative to spike amount. The associated BS/BSD spike recoveries/RPDs were acceptable.

Matrix: AQ **Batch ID:** VW1883

- Sample(s) C38998-1MS, C38998-1MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VW1886

- Sample(s) C38997-7MS, C38997-7MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VW1888

- Sample(s) C39008-9MS, C39008-9MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C38998
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/19/15

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C38998-1	**PCM-508A**					
Methyl Tert Butyl Ether [a]		8930	100		ug/l	SW846 8260B
C38998-2	**PCM-508B**					
Ethylbenzene [a]		51.0	10		ug/l	SW846 8260B
Xylene (total) [a]		22.8	20		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		6870	100		ug/l	SW846 8260B
C38998-3	**PCM-535A**					
Methyl Tert Butyl Ether		58.5	1.0		ug/l	SW846 8260B
C38998-4	**PCM-535A DUP**					
Methyl Tert Butyl Ether		60.0	1.0		ug/l	SW846 8260B
C38998-5	**R-012A**					
Methyl Tert Butyl Ether [b]		5890	100		ug/l	SW846 8260B
C38998-6	**R-021A**					
Methyl Tert Butyl Ether [b]		2230	50		ug/l	SW846 8260B
C38998-7	**WR-209A**					
Methyl Tert Butyl Ether		21.6	1.0		ug/l	SW846 8260B
C38998-8	**R-016A**					
Methyl Tert Butyl Ether [a]		799	25		ug/l	SW846 8260B
C38998-9	**R-022A**					
No hits reported in this sample.						
C38998-10	**TRIP BLANK**					
No hits reported in this sample.						

(a) AZ:D2
(b) AZ:D2 AZ:M3

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PCM-508A		
Lab Sample ID:	C38998-1	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51825.D	10	03/26/15	JC	n/a	n/a	VW1886
Run #2 [a]	W51745.D	100	03/24/15	JC	n/a	n/a	VW1883

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8930 [b]	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	97%	70-130%
2037-26-5	Toluene-D8	98%	98%	70-130%
460-00-4	4-Bromofluorobenzene	96%	97%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-508B		
Lab Sample ID:	C38998-2	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51824.D	10	03/26/15	JC	n/a	n/a	VW1886
Run #2 [a]	W51821.D	100	03/25/15	JC	n/a	n/a	VW1886

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	51.0	10	ug/l	
1330-20-7	Xylene (total)	22.8	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	6870 [b]	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	96%	100%	70-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-535A		
Lab Sample ID:	C38998-3	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51822.D	1	03/25/15	JC	n/a	n/a	VW1886
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	58.5	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-535A DUP		
Lab Sample ID:	C38998-4	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51823.D	1	03/26/15	JC	n/a	n/a	VW1886
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	60.0	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-012A		
Lab Sample ID:	C38998-5	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	U26079.D	10	03/26/15	JC	n/a	n/a	VU1072
Run #2 [a]	U26077.D	100	03/26/15	JC	n/a	n/a	VU1072

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether [b]	5890 [c]	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%	107%	70-130%
2037-26-5	Toluene-D8	101%	101%	70-130%
460-00-4	4-Bromofluorobenzene	89%	90%	70-130%

(a) AZ:D2
(b) AZ:M3
(c) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-021A		
Lab Sample ID:	C38998-6	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	U26080.D	5	03/26/15	JC	n/a	n/a	VU1072
Run #2 [a]	U26078.D	50	03/26/15	JC	n/a	n/a	VU1072

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	5.0	ug/l	
108-88-3	Toluene	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	5.0	ug/l	
1330-20-7	Xylene (total)	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether [b]	2230 [c]	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	106%	70-130%
2037-26-5	Toluene-D8	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	88%	88%	70-130%

(a) AZ:D2
(b) AZ:M3
(c) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-209A		
Lab Sample ID:	C38998-7	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51865.D	1	03/27/15	JC	n/a	n/a	VW1888
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	21.6	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

4.8

4

Client Sample ID:	R-016A		
Lab Sample ID:	C38998-8	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51878.D	2.5	03/27/15	JC	n/a	n/a	VW1888
Run #2 [a]	W51866.D	25	03/27/15	JC	n/a	n/a	VW1888

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2.5	ug/l	
108-88-3	Toluene	ND	2.5	ug/l	
100-41-4	Ethylbenzene	ND	2.5	ug/l	
1330-20-7	Xylene (total)	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	799 [b]	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	100%	70-130%
2037-26-5	Toluene-D8	102%	99%	70-130%
460-00-4	4-Bromofluorobenzene	101%	98%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-022A		
Lab Sample ID:	C38998-9	**Date Sampled:**	03/19/15
Matrix:	AQ - Ground Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51867.D	1	03/27/15	JC	n/a	n/a	VW1888
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C38998-10	**Date Sampled:**	03/19/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/20/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51864.D	1	03/27/15	JC	n/a	n/a	VW1888
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.

PHOENIX

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CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 806632106231
Bottle Order Control #
Accutest Quote #
Accutest NC Job #: C C38998

Client / Reporting Information

Company Name: City of Tucson
Address: P. O. Box 27210
City: Tucson State: AZ Zip: 85726
Project Contact: Lori Ehman
Phone #: 520.791.3175
Samplers's Name: J. Byrnes

Project Information

Project Name: Rice Service Center
Street:
City: State:
Project #: P. O. 1064
EMAIL:
Client Purchase Order #:

Requested Analysis

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MeOH	ENCORE	BTEX/MTBE	LAB USE ONLY
1	PCM-508A	3/19/15	0840	GB	GW	3									X	
2	PCM-508B	3/19/15	0855	GB	GW	3									X	
3	PCM-535 A	3/19/15	0910	GB	GW	3									X	
4	PCM-535 A dup	3/19/15	0914	GB	GW	3									X	
5	R-012A	3/19/15	0957	GB	GW	3									X	
6	R-021A	3/19/15	1003	GB	GW	3									X	
7	WR-209A	3/19/15	1020	GB	GW	3									X	
8	R-016A	3/19/15	1035	GB	GW	3									X	
9	R-022A	3/19/15	1050	GB	GW	3									X	
10	TRIP BLANK														X	

Turnaround Time (Business days)

Approved By/ Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker
- EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 J. Moulton	3-19-15 1130	[illegible]	2 [illegible]	3/19/15 1700	2 Fedex
Relinquished by: 3 FEDEX	Date Time: 3/20/15 0955	Received By: 3 [illegible]	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # Y	Appropriate Bottle / Pres. Y/N	Headspace Y/N
				Labels match CoC? Y / N	Separate Receiving Check List used: Y / N

On Ice Y/N

Cooler Temp 2.9/2.9

5.2

5

C38998: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C38998 **Client:** CITY OF TUCON **Project:** PRICE SERVICE CENTER

Date / Time Received: 3/20/2015 9:55:00 AM **Delivery Method:** FedEx **Airbill #'s:** 806632106231

Cooler Temps (Initial/Adjusted): #1: (2.9/2.9);

Cooler Security	Y	or N		Y	or N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	or N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR1;	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	1	

Quality Control Preservation	Y	or N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	or N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	or N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	or N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

5.2

5

C38998: Chain of Custody
Page 2 of 2

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GC/MS Volatiles

6

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1883-MB	W51727.D	1	03/24/15	JC	n/a	n/a	VW1883

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-1

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	96%	70-130%

Method Blank Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1886-MB	W51808.D	1	03/25/15	JC	n/a	n/a	VW1886

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-1, C38998-2, C38998-3, C38998-4

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	97%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

Method Blank Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1072-MB	U26061.D	1	03/26/15	JC	n/a	n/a	VU1072

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-5, C38998-6

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	102%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	93%	70-130%

Method Blank Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1888-MB	W51862.D	1	03/27/15	JC	n/a	n/a	VW1888

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-7, C38998-8, C38998-9, C38998-10

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1883-BS	W51724.D	1	03/24/15	JC	n/a	n/a	VW1883
VW1883-BSD	W51725.D	1	03/24/15	JC	n/a	n/a	VW1883

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	20	20.0	100	20.2	101	1	73-132/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	99%	70-130%
2037-26-5	Toluene-D8	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	97%	97%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1886-BS	W51805.D	1	03/25/15	JC	n/a	n/a	VW1886
VW1886-BSD	W51806.D	1	03/25/15	JC	n/a	n/a	VW1886

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-1, C38998-2, C38998-3, C38998-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.5	93	18.7	94	1	77-122/25
100-41-4	Ethylbenzene	20	18.9	95	19.3	97	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	19.7	99	19.8	99	1	73-132/17
108-88-3	Toluene	20	18.7	94	19.0	95	2	75-122/17
1330-20-7	Xylene (total)	60	56.4	94	57.4	96	2	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	99%	70-130%
2037-26-5	Toluene-D8	97%	98%	70-130%
460-00-4	4-Bromofluorobenzene	97%	99%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1072-BS	U26058.D	1	03/26/15	JC	n/a	n/a	VU1072
VU1072-BSD	U26059.D	1	03/26/15	JC	n/a	n/a	VU1072

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-5, C38998-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.1	91	18.1	91	0	77-122/25
100-41-4	Ethylbenzene	20	18.9	95	18.7	94	1	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.3	102	19.9	100	2	73-132/17
108-88-3	Toluene	20	18.6	93	18.5	93	1	75-122/17
1330-20-7	Xylene (total)	60	56.4	94	55.7	93	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	99%	70-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	98%	98%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1888-BS	W51859.D	1	03/27/15	JC	n/a	n/a	VW1888
VW1888-BSD	W51860.D	1	03/27/15	JC	n/a	n/a	VW1888

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-7, C38998-8, C38998-9, C38998-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.8	94	18.3	92	3	77-122/25
100-41-4	Ethylbenzene	20	19.9	100	19.4	97	3	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.4	102	20.2	101	1	73-132/17
108-88-3	Toluene	20	19.4	97	19.1	96	2	75-122/17
1330-20-7	Xylene (total)	60	58.5	98	57.4	96	2	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	101%	100%	70-130%
2037-26-5	Toluene-D8	100%	101%	70-130%
460-00-4	4-Bromofluorobenzene	100%	100%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1886-LCS	W51807.D	1	03/25/15	JC	n/a	n/a	VW1886

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-1, C38998-2, C38998-3, C38998-4

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1072-LCS	U26060.D	1	03/26/15	JC	n/a	n/a	VU1072

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-5, C38998-6

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	96%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1888-LCS	W51861.D	1	03/27/15	JC	n/a	n/a	VW1888

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-7, C38998-8, C38998-9, C38998-10

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C38998-1MS	W51746.D	100	03/24/15	JC	n/a	n/a	VW1883
C38998-1MSD	W51747.D	100	03/24/15	JC	n/a	n/a	VW1883
C38998-1 [a]	W51745.D	100	03/24/15	JC	n/a	n/a	VW1883

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-1

CAS No.	Compound	C38998-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	8930		2000	11100	109	2000	11200	114	1	73-132/17

CAS No.	Surrogate Recoveries	MS	MSD	C38998-1	Limits
1868-53-7	Dibromofluoromethane	103%	101%	97%	70-130%
2037-26-5	Toluene-D8	100%	98%	98%	70-130%
460-00-4	4-Bromofluorobenzene	99%	96%	97%	70-130%

(a) AZ:D2

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C38997-7MS	W51826.D	1	03/26/15	JC	n/a	n/a	VW1886
C38997-7MSD	W51827.D	1	03/26/15	JC	n/a	n/a	VW1886
C38997-7	W51812.D	1	03/25/15	JC	n/a	n/a	VW1886

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-1, C38998-2, C38998-3, C38998-4

CAS No.	Compound	C38997-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	5.4		20	25.5	101	20	25.2	99	1	77-122/16
100-41-4	Ethylbenzene	0.25	J	20	20.8	103	20	20.7	102	0	76-126/17
1634-04-4	Methyl Tert Butyl Ether	ND		20	20.9	105	20	20.9	105	0	73-132/17
108-88-3	Toluene	0.44	J	20	20.7	101	20	20.6	101	0	75-122/17
1330-20-7	Xylene (total)	1.0	J	60	61.6	101	60	61.5	101	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C38997-7	Limits
1868-53-7	Dibromofluoromethane	99%	100%	100%	70-130%
2037-26-5	Toluene-D8	96%	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	97%	98%	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C38998-6MS	U26081.D	50	03/26/15	JC	n/a	n/a	VU1072
C38998-6MSD	U26082.D	50	03/26/15	JC	n/a	n/a	VU1072
C38998-6 [a]	U26080.D	5	03/26/15	JC	n/a	n/a	VU1072
C38998-6 [a]	U26078.D	50	03/26/15	JC	n/a	n/a	VU1072

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-5, C38998-6

CAS No.	Compound	C38998-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		1000	931	93	1000	940	94	1	77-122/16
100-41-4	Ethylbenzene	ND		1000	936	94	1000	941	94	1	76-126/17
1634-04-4	Methyl Tert Butyl Ether	2230 [c]		1000	3200	56* [b]	1000	3330	69* [b]	4	73-132/17
108-88-3	Toluene	ND		1000	916	92	1000	930	93	2	75-122/17
1330-20-7	Xylene (total)	ND		3000	2800	93	3000	2800	93	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C38998-6	C38998-6	Limits
1868-53-7	Dibromofluoromethane	105%	109%	105%	106%	70-130%
2037-26-5	Toluene-D8	98%	97%	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	88%	88%	70-130%

(a) AZ:D2
(b) Outside control limits due to high level in sample relative to spike amount. AZ:M3
(c) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C38998
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39008-9MS	W51880.D	100	03/27/15	JC	n/a	n/a	VW1888
C39008-9MSD	W51881.D	100	03/27/15	JC	n/a	n/a	VW1888
C39008-9	W51877.D	10	03/27/15	JC	n/a	n/a	VW1888
C39008-9	W51874.D	100	03/27/15	JC	n/a	n/a	VW1888

The QC reported here applies to the following samples: **Method:** SW846 8260B

C38998-7, C38998-8, C38998-9, C38998-10

CAS No.	Compound	C39008-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2000	1790	90	2000	1830	92	2	77-122/16
100-41-4	Ethylbenzene	2.1		2000	1870	93	2000	1910	95	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	2490 [a]		2000	4550	101	2000	4510	99	1	73-132/17
108-88-3	Toluene	ND		2000	1860	93	2000	1890	95	2	75-122/17
1330-20-7	Xylene (total)	ND		6000	5540	92	6000	5670	95	2	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39008-9	C39008-9	Limits
1868-53-7	Dibromofluoromethane	102%	99%	101%	101%	70-130%
2037-26-5	Toluene-D8	98%	98%	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	101%	99%	70-130%

(a) Result is from Run #2.

* = Outside of Control Limits.

Northern California
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04/06/15

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

Accutest Job Number: C39008

Sampling Date: 03/20/15

Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Richard Byrd

Total number of pages in report: **31**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Elvin Kumar 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 5
Section 4: Sample Results 7
4.1: C39008-1: R-013A 8
4.2: C39008-2: R-013A(DUP) 9
4.3: C39008-3: WR-210A 10
4.4: C39008-4: R-017A 11
4.5: C39008-5: R-018A 12
4.6: C39008-6: R-019A 13
4.7: C39008-7: PCM-509A 14
4.8: C39008-8: PCM-509B 15
4.9: C39008-9: R-020A 16
4.10: C39008-10: TRIP BLANK 17
Section 5: Misc. Forms 18
5.1: Arizona Qualifiers 19
5.2: Chain of Custody 20
Section 6: GC/MS Volatiles - QC Data Summaries 23
6.1: Method Blank Summary 24
6.2: Blank Spike/Blank Spike Duplicate Summary 26
6.3: Laboratory Control Sample Summary 28
6.4: Matrix Spike/Matrix Spike Duplicate Summary 30

Sample Summary

City of Tucson Environmental Services

Job No: C39008

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
C39008-1	03/20/15	08:15 HJV	03/21/15	AQ	Ground Water	R-013A
C39008-2	03/20/15	08:17 HJV	03/21/15	AQ	Ground Water	R-013A(DUP)
C39008-3	03/20/15	08:33 HJV	03/21/15	AQ	Ground Water	WR-210A
C39008-4	03/20/15	08:50 HJV	03/21/15	AQ	Ground Water	R-017A
C39008-5	03/20/15	09:10 HJV	03/21/15	AQ	Ground Water	R-018A
C39008-6	03/20/15	09:27 HJV	03/21/15	AQ	Ground Water	R-019A
C39008-7	03/20/15	09:48 HJV	03/21/15	AQ	Ground Water	PCM-509A
C39008-8	03/20/15	10:10 HJV	03/21/15	AQ	Ground Water	PCM-509B
C39008-9	03/20/15	10:25 HJV	03/21/15	AQ	Ground Water	R-020A
C39008-10	03/20/15	00:00 HJV	03/21/15	AQ	Trip Blank Water	TRIP BLANK

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	City of Tucson Environmental Services	**Job No**	C39008
Site:	Price Service Center	**Report Date**	4/6/2015 10:11:16 PM

9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/20/2015 and were received at Accutest on 03/21/2015 properly preserved, at 3.2 Deg. C and intact. These Samples received an Accutest job number of C39008. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VW1888

- All method blanks and blank spikes for this batch meet method specific criteria.
- Sample(s) C39008-9MS, C39008-9MSD were used as the QC samples indicated.
- C39008-6: Sample vial contained more than 0.5cm of sediment.

Matrix: AQ **Batch ID:** VW1889

- All method blanks and blank spikes for this batch meet method specific criteria.
- Sample(s) C39023-12MS, C39023-12MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C39008
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/20/15

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C39008-1	**R-013A**					
Benzene		2.4	1.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		217	5.0		ug/l	SW846 8260B
C39008-2	**R-013A(DUP)**					
Benzene		2.3	1.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		202	2.5		ug/l	SW846 8260B
C39008-3	**WR-210A**					
Methyl Tert Butyl Ether		25.4	1.0		ug/l	SW846 8260B
C39008-4	**R-017A**					
Methyl Tert Butyl Ether		53.7	1.0		ug/l	SW846 8260B
C39008-5	**R-018A**					
Benzene [a]		139	20		ug/l	SW846 8260B
Toluene [a]		30.5	20		ug/l	SW846 8260B
Ethylbenzene [a]		475	20		ug/l	SW846 8260B
Xylene (total) [a]		3200	40		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		8320	200		ug/l	SW846 8260B
C39008-6	**R-019A**					
Benzene [b]		18.5	2.5		ug/l	SW846 8260B
Toluene [b]		3.5	2.5		ug/l	SW846 8260B
Ethylbenzene [b]		293	25		ug/l	SW846 8260B
Xylene (total) [b]		93.7	5.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether [b]		1030	25		ug/l	SW846 8260B
C39008-7	**PCM-509A**					
No hits reported in this sample.						
C39008-8	**PCM-509B**					
Methyl Tert Butyl Ether [a]		777	10		ug/l	SW846 8260B
C39008-9	**R-020A**					
Methyl Tert Butyl Ether [a]		2490	100		ug/l	SW846 8260B

Summary of Hits

Job Number: C39008
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/20/15

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

C39008-10 **TRIP BLANK**

No hits reported in this sample.

(a) AZ:D2
(b) Sample vial contained more than 0.5cm of sediment. AZ:D2

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	R-013A		
Lab Sample ID:	C39008-1	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51892.D	1	03/27/15	JC	n/a	n/a	VW1889
Run #2 [a]	W51904.D	5	03/27/15	JC	n/a	n/a	VW1889

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	2.4	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	217 [b]	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	101%	70-130%
2037-26-5	Toluene-D8	100%	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	99%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-013A(DUP)		
Lab Sample ID:	C39008-2	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51905.D	1	03/27/15	JC	n/a	n/a	VW1889
Run #2 [a]	W51902.D	2.5	03/27/15	JC	n/a	n/a	VW1889

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	2.3	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	202 [b]	2.5	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	99%	70-130%
2037-26-5	Toluene-D8	99%	100%	70-130%
460-00-4	4-Bromofluorobenzene	101%	99%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-210A		
Lab Sample ID:	C39008-3	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51891.D	1	03/27/15	JC	n/a	n/a	VW1889
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	25.4	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-017A		
Lab Sample ID:	C39008-4	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51890.D	1	03/27/15	JC	n/a	n/a	VW1889
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	53.7	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	98%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-018A		
Lab Sample ID:	C39008-5	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51906.D	20	03/27/15	JC	n/a	n/a	VW1889
Run #2 [a]	W51903.D	200	03/27/15	JC	n/a	n/a	VW1889

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	139	20	ug/l	
108-88-3	Toluene	30.5	20	ug/l	
100-41-4	Ethylbenzene	475	20	ug/l	
1330-20-7	Xylene (total)	3200	40	ug/l	
1634-04-4	Methyl Tert Butyl Ether	8320 [b]	200	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	101%	70-130%
2037-26-5	Toluene-D8	101%	99%	70-130%
460-00-4	4-Bromofluorobenzene	102%	99%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-019A		
Lab Sample ID:	C39008-6	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51879.D	2.5	03/27/15	JC	n/a	n/a	VW1888
Run #2 [a]	W51872.D	25	03/27/15	JC	n/a	n/a	VW1888

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	18.5	2.5	ug/l	
108-88-3	Toluene	3.5	2.5	ug/l	
100-41-4	Ethylbenzene	293 [b]	25	ug/l	
1330-20-7	Xylene (total)	93.7	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1030 [b]	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	100%	70-130%
2037-26-5	Toluene-D8	101%	100%	70-130%
460-00-4	4-Bromofluorobenzene	102%	100%	70-130%

(a) Sample vial contained more than 0.5cm of sediment. AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-509A		
Lab Sample ID:	C39008-7	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51871.D	1	03/27/15	JC	n/a	n/a	VW1888
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-509B		
Lab Sample ID:	C39008-8	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51876.D	1	03/27/15	JC	n/a	n/a	VW1888
Run #2 [a]	W51873.D	10	03/27/15	JC	n/a	n/a	VW1888

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	777 [b]	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	101%	70-130%
2037-26-5	Toluene-D8	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	100%	98%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-020A		
Lab Sample ID:	C39008-9	**Date Sampled:**	03/20/15
Matrix:	AQ - Ground Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51877.D	10	03/27/15	JC	n/a	n/a	VW1888
Run #2 [a]	W51874.D	100	03/27/15	JC	n/a	n/a	VW1888

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	2490 [b]	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	101%	70-130%
2037-26-5	Toluene-D8	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	101%	99%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39008-10	**Date Sampled:**	03/20/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/21/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51863.D	1	03/27/15	JC	n/a	n/a	VW1888
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.

CHAIN OF CUSTODY

ACCUTEST LABORATORIES
2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking #:
Bottle Order Control #:
Accutest Quote #:
Accutest NC Job #: C 39008

Client / Reporting Information

Company Name: CITY OF TUCSON
Address: P.O. Box 27210
City: TUCSON State: AZ Zip: 85726
Project Contact: LORI EHMAN
Phone #: 520-791-3175
Samplers's Name: H.J. Vimislik H.J. VIMISLIK

Project Information

Project Name: PRICE SERVICE CENTER
Street:
City: State:
Project #: P.O. 1064
EMAIL:
Client Purchase Order #:

Requested Analysis: BTEX / MTBE

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Pennsylvania Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MeOH	EnCore	BTEX / MTBE	LAB USE ONLY
1	R-013A	3/20/15	0815	HJV	GW	3									X	
2	R-013A (DUP)	3/20/15	0817	HJV	GW	3									X	
3	WR-210A	3/20/15	0833	HJV	GW	3									X	
4	R-017A	3/20/15	0850	HJV	GW	3									X	
5	R-018A	3/20/15	0910	HJV	GW	3									X	
6	R-019A	3/20/15	0927	HJV	GW	3									X	
7	PCM-509A	3/20/15	0948	HJV	GW	3									X	
8	PCM-509B	3/20/15	1010	HJV	GW	3									X	
9	R-020A	3/20/15	1025	HJV	GW	3									X	
10	Trip Blank					3									X	

Turnaround Time (Business days)

Approved By / Date:

- [ ] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [ ] Commercial "B" - Results with QC summaries
- [ ] Commerical "B+" - Results, QC, and chromatograms
- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1 H.J. Vimislik	3/20/15 1130	1 [illegible]	2		2
Relinquished by: 3 Fedex	Date Time: 3/21/15 0910	Received By: 3 [illegible]	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # Y	Appropriate Bottle / Pres. Y/N	Headspace Y/N
			Labels match Coc? Y / N	Separate Receiving Check Listsed: Y / N	On Ice Y/N

Cooler Temp. 3.2/3.2 °C

5.2 5

C39008: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C39008 **Client:** CITY OF TUCSON **Project:** PRICE SERVICE CENTER

Date / Time Received: 3/21/2015 9:10:00 AM **Delivery Method:** FedEx **Airbill #'s:** 806632106242

Cooler Temps (Initial/Adjusted): #1: (3.2/3.2);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No, Coolers	1	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☐	☑	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments trip blank was not originally listed on the coc

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

5.2

5

C39008: Chain of Custody
Page 2 of 3

ACCUTEST LABORATORIES

Sample Receipt Summary - Problem Resolution

Accutest Job Number: C39008

CSR: Elvin Kumar **Response Date:** 3/24/2015

Response: Client submitted a revised COC with Trip Blanks added, Sample C39008-10 logged in for V8260BTXM

5.2

5

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

C39008: Chain of Custody
Page 3 of 3

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1888-MB	W51862.D	1	03/27/15	JC	n/a	n/a	VW1888

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39008-6, C39008-7, C39008-8, C39008-9, C39008-10

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Method Blank Summary

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1889-MB	W51889.D	1	03/27/15	JC	n/a	n/a	VW1889

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39008-1, C39008-2, C39008-3, C39008-4, C39008-5

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1888-BS	W51859.D	1	03/27/15	JC	n/a	n/a	VW1888
VW1888-BSD	W51860.D	1	03/27/15	JC	n/a	n/a	VW1888

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39008-6, C39008-7, C39008-8, C39008-9, C39008-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.8	94	18.3	92	3	77-122/25
100-41-4	Ethylbenzene	20	19.9	100	19.4	97	3	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.4	102	20.2	101	1	73-132/17
108-88-3	Toluene	20	19.4	97	19.1	96	2	75-122/17
1330-20-7	Xylene (total)	60	58.5	98	57.4	96	2	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	101%	100%	70-130%
2037-26-5	Toluene-D8	100%	101%	70-130%
460-00-4	4-Bromofluorobenzene	100%	100%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1889-BS	W51886.D	1	03/27/15	JC	n/a	n/a	VW1889
VW1889-BSD	W51887.D	1	03/27/15	JC	n/a	n/a	VW1889

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39008-1, C39008-2, C39008-3, C39008-4, C39008-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.4	92	18.2	91	1	77-122/25
100-41-4	Ethylbenzene	20	19.6	98	18.8	94	4	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.0	100	20.1	101	0	73-132/17
108-88-3	Toluene	20	19.2	96	18.7	94	3	75-122/17
1330-20-7	Xylene (total)	60	58.0	97	56.6	94	2	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	99%	70-130%
2037-26-5	Toluene-D8	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	100%	99%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1888-LCS	W51861.D	1	03/27/15	JC	n/a	n/a	VW1888

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39008-6, C39008-7, C39008-8, C39008-9, C39008-10

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1889-LCS	W51888.D	1	03/27/15	JC	n/a	n/a	VW1889

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39008-1, C39008-2, C39008-3, C39008-4, C39008-5

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	96%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39008-9MS	W51880.D	100	03/27/15	JC	n/a	n/a	VW1888
C39008-9MSD	W51881.D	100	03/27/15	JC	n/a	n/a	VW1888
C39008-9 [a]	W51877.D	10	03/27/15	JC	n/a	n/a	VW1888
C39008-9 [a]	W51874.D	100	03/27/15	JC	n/a	n/a	VW1888

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39008-6, C39008-7, C39008-8, C39008-9, C39008-10

CAS No.	Compound	C39008-9 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2000	1790	90	2000	1830	92	2	77-122/16
100-41-4	Ethylbenzene	2.1		2000	1870	93	2000	1910	95	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	2490 [b]		2000	4550	101	2000	4510	99	1	73-132/17
108-88-3	Toluene	ND		2000	1860	93	2000	1890	95	2	75-122/17
1330-20-7	Xylene (total)	ND		6000	5540	92	6000	5670	95	2	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39008-9	C39008-9	Limits
1868-53-7	Dibromofluoromethane	102%	99%	101%	101%	70-130%
2037-26-5	Toluene-D8	98%	98%	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	101%	99%	70-130%

(a) AZ:D2
(b) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39008
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39023-12MS	W51907.D	100	03/27/15	JC	n/a	n/a	VW1889
C39023-12MSD	W51908.D	100	03/27/15	JC	n/a	n/a	VW1889
C39023-12	W51900.D	100	03/27/15	JC	n/a	n/a	VW1889

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39008-1, C39008-2, C39008-3, C39008-4, C39008-5

CAS No.	Compound	C39023-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2000	1840	92	2000	1860	93	1	77-122/16
100-41-4	Ethylbenzene	ND		2000	1890	95	2000	1930	97	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	917		2000	2950	102	2000	2940	101	0	73-132/17
108-88-3	Toluene	ND		2000	1870	94	2000	1900	95	2	75-122/17
1330-20-7	Xylene (total)	ND		6000	5620	94	6000	5710	95	2	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39023-12	Limits
1868-53-7	Dibromofluoromethane	100%	100%	100%	70-130%
2037-26-5	Toluene-D8	98%	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	99%	70-130%

* = Outside of Control Limits.

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04/07/15

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

Accutest Job Number: C39033

Sampling Date: 03/23/15

Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Richard Byrd

Total number of pages in report: **28**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Elvin Kumar 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 5
Section 4: Sample Results 6
4.1: C39033-1: WR-211A 7
4.2: C39033-2: WR-211A DUP 8
4.3: C39033-3: WR-232A 9
4.4: C39033-4: WR-216A 10
4.5: C39033-5: WR-208A 11
4.6: C39033-6: WR-218A 12
4.7: C39033-7: WR-213A 13
4.8: C39033-8: WR-214A 14
4.9: C39033-9: WR-228A 15
4.10: C39033-10: TRIP BLANK 16
Section 5: Misc. Forms 17
5.1: Chain of Custody 18
Section 6: GC/MS Volatiles - QC Data Summaries 20
6.1: Method Blank Summary 21
6.2: Blank Spike/Blank Spike Duplicate Summary 23
6.3: Laboratory Control Sample Summary 25
6.4: Matrix Spike/Matrix Spike Duplicate Summary 27

Sample Summary

City of Tucson Environmental Services

Job No: C39033

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C39033-1	03/23/15	08:30	GB	03/24/15	AQ	Ground Water	WR-211A
C39033-2	03/23/15	08:34	GB	03/24/15	AQ	Ground Water	WR-211A DUP
C39033-3	03/23/15	08:57	GB	03/24/15	AQ	Ground Water	WR-232A
C39033-4	03/23/15	09:11	GB	03/24/15	AQ	Ground Water	WR-216A
C39033-5	03/23/15	09:27	GB	03/24/15	AQ	Ground Water	WR-208A
C39033-6	03/23/15	09:47	GB	03/24/15	AQ	Ground Water	WR-218A
C39033-7	03/23/15	09:58	GB	03/24/15	AQ	Ground Water	WR-213A
C39033-8	03/23/15	10:12	GB	03/24/15	AQ	Ground Water	WR-214A
C39033-9	03/23/15	10:27	GB	03/24/15	AQ	Ground Water	WR-228A
C39033-10	03/23/15	00:00	GB	03/24/15	AQ	Trip Blank Water	TRIP BLANK

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	City of Tucson Environmental Services	**Job No**	C39033
Site:	Price Service Center	**Report Date**	4/7/2015 10:27:37 PM

9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/23/2015 and were received at Accutest on 03/24/2015 properly preserved, at 3.4 Deg. C and intact. These Samples received an Accutest job number of C39033. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VR1264

- Sample(s) C39050-4MS, C39050-4MSD were used as the QC samples indicated.
- Matrix Spike Duplicate for Methyl Tert Butyl Ether is outside control limits due to high level in sample relative to spike amount. The associated blank spike recoveries were acceptable.

Matrix: AQ **Batch ID:** VW1891

- Sample(s) C39050-5MS, C39050-5MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C39033
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/23/15

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method

C39033-1 **WR-211A**

No hits reported in this sample.

C39033-2 **WR-211A DUP**

No hits reported in this sample.

C39033-3 **WR-232A**

No hits reported in this sample.

C39033-4 **WR-216A**

No hits reported in this sample.

C39033-5 **WR-208A**

No hits reported in this sample.

C39033-6 **WR-218A**

No hits reported in this sample.

C39033-7 **WR-213A**

No hits reported in this sample.

C39033-8 **WR-214A**

No hits reported in this sample.

C39033-9 **WR-228A**

No hits reported in this sample.

C39033-10 TRIP BLANK

No hits reported in this sample.

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WR-211A		
Lab Sample ID:	C39033-1	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33494.D	1	03/28/15	BQ	n/a	n/a	VR1264
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-211A DUP		
Lab Sample ID:	C39033-2	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33495.D	1	03/28/15	BQ	n/a	n/a	VR1264
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-232A		
Lab Sample ID:	C39033-3	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33496.D	1	03/28/15	BQ	n/a	n/a	VR1264
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-216A		
Lab Sample ID:	C39033-4	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33497.D	1	03/28/15	BQ	n/a	n/a	VR1264
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-208A		
Lab Sample ID:	C39033-5	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51945.D	1	03/29/15	JC	n/a	n/a	VW1891
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-218A		
Lab Sample ID:	C39033-6	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51946.D	1	03/29/15	JC	n/a	n/a	VW1891
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-213A		
Lab Sample ID:	C39033-7	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51947.D	1	03/29/15	JC	n/a	n/a	VW1891
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-214A		
Lab Sample ID:	C39033-8	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33498.D	1	03/28/15	BQ	n/a	n/a	VR1264
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-228A		
Lab Sample ID:	C39033-9	**Date Sampled:**	03/23/15
Matrix:	AQ - Ground Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33499.D	1	03/28/15	BQ	n/a	n/a	VR1264
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39033-10	**Date Sampled:**	03/23/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/24/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51944.D	1	03/29/15	JC	n/a	n/a	VW1891
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

PHOENIX

CHAIN OF CUSTODY

ACCUTEST® LABORATORIES

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 8066 3210 6220
Bottle Order Control #
Accutest Quote #
Accutest NC Job #: C C39033

Client / Reporting Information

Company Name: City of Tucson
Address: PO Box 27210
City: Tucson State: AZ Zip: 85726
Project Contact: Lori Ehman
Phone #: 520-791-3175
Samplers's Name: S. Bejarano

Project Information

Project Name: PRICE SERVICE CENTER
Street:
City: State:
Project #: PO 1064
EMAIL:
Client Purchase Order #:

Requested Analysis: BTEX / MTBE

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-OI; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	BTEX / MTBE	LAB USE ONLY
1	WR-211A	3/23/15	0830	GB	GW	3									X	
2	WR-211A dup	3/23/15	0834	GB	GW	3									X	
3	WR-232A	3/23/15	0857	GB	GW	3									X	
4	WR-216A	3/23/15	0911	GB	GW	3									X	
5	WR-208A	3/23/15	0927	GB	GW	3									X	
6	WR-218A	3/23/15	0947	GB	GW	3									X	
7	WR-213A	3/23/15	0958	GB	GW	3									X	
8	WR-214A	3/23/15	1012	GB	GW	3									X	
9	WR-228A	3/23/15	1027	GB	GW	3									X	
10	TRIP BLANK														X	

Turnaround Time (Business days)

Approved By:/ Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker
- EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 S. Bejarano	3/23/15 1129	1 [signature]	2 [signature]	3/23/15 1706	2 Fedex
Relinquished by: 3 Fedex	Date Time: 3/24/15 1100	Received By: 3 [signature]	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal #	Appropriate Bottle / Pres. Y/N; Labels match Coc? Y / N	Headspace Y/N; Separate Receiving Check List used: Y / N; On Ice Y/N; Cooler Temp. 3.4/3.4 °C

5.1 5

C39033: Chain of Custody
Page 1 of 2

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Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C39033 **Client:** CITY OF TUCSON **Project:** PRICE SERVICE CENTER

Date / Time Received: 3/24/2015 10:00:00 AM **Delivery Method:** FedEx **Airbill #'s:** 806632106220

Cooler Temps (Initial/Adjusted): #1: (3.4/3.4);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	IR1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

5.1

5

C39033: Chain of Custody
Page 2 of 2

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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C39033
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1264-MB	R33481.D	1	03/28/15	BQ	n/a	n/a	VR1264

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39033-1, C39033-2, C39033-3, C39033-4, C39033-8, C39033-9

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Method Blank Summary

Job Number: C39033
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1891-MB	W51943.D	1	03/29/15	JC	n/a	n/a	VW1891

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39033-5, C39033-6, C39033-7, C39033-10

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39033
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1264-BS	R33478.D	1	03/28/15	BQ	n/a	n/a	VR1264
VR1264-BSD	R33479.D	1	03/28/15	BQ	n/a	n/a	VR1264

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39033-1, C39033-2, C39033-3, C39033-4, C39033-8, C39033-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.9	95	19.1	96	1	77-122/25
100-41-4	Ethylbenzene	20	18.7	94	19.1	96	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.9	105	20.7	104	1	73-132/17
108-88-3	Toluene	20	18.5	93	18.9	95	2	75-122/17
1330-20-7	Xylene (total)	60	55.5	93	56.3	94	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	106%	104%	70-130%
2037-26-5	Toluene-D8	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	99%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39033
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1891-BS	W51940.D	1	03/29/15	JC	n/a	n/a	VW1891
VW1891-BSD	W51941.D	1	03/29/15	JC	n/a	n/a	VW1891

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39033-5, C39033-6, C39033-7, C39033-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.4	92	18.3	92	1	77-122/25
100-41-4	Ethylbenzene	20	19.2	96	18.8	94	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.6	103	20.7	104	0	73-132/17
108-88-3	Toluene	20	18.6	93	18.4	92	1	75-122/17
1330-20-7	Xylene (total)	60	56.2	94	56.1	94	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	102%	70-130%
2037-26-5	Toluene-D8	98%	98%	70-130%
460-00-4	4-Bromofluorobenzene	99%	100%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39033
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1264-LCS	R33480.D	1	03/28/15	BQ	n/a	n/a	VR1264

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39033-1, C39033-2, C39033-3, C39033-4, C39033-8, C39033-9

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39033
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1891-LCS	W51942.D	1	03/29/15	JC	n/a	n/a	VW1891

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39033-5, C39033-6, C39033-7, C39033-10

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39033
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39050-4MS	R33501.D	50	03/28/15	BQ	n/a	n/a	VR1264
C39050-4MSD	R33502.D	50	03/28/15	BQ	n/a	n/a	VR1264
C39050-4	R33500.D	10	03/28/15	BQ	n/a	n/a	VR1264
C39050-4	R33488.D	50	03/28/15	BQ	n/a	n/a	VR1264

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39033-1, C39033-2, C39033-3, C39033-4, C39033-8, C39033-9

CAS No.	Compound	C39050-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		1000	929	93	1000	938	94	1	77-122/16
100-41-4	Ethylbenzene	ND		1000	933	93	1000	933	93	0	76-126/17
1634-04-4	Methyl Tert Butyl Ether	4900 [b]		1000	5800	90	1000	5600	70* [a]	4	73-132/17
108-88-3	Toluene	ND		1000	915	92	1000	919	92	0	75-122/17
1330-20-7	Xylene (total)	ND		3000	2740	91	3000	2740	91	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39050-4	C39050-4	Limits
1868-53-7	Dibromofluoromethane	100%	101%	97%	103%	70-130%
2037-26-5	Toluene-D8	99%	99%	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	99%	95%	96%	70-130%

(a) Outside control limits due to high level in sample relative to spike amount. AZ:M3
(b) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39033
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39050-5MS	W51986.D	100	03/30/15	JC	n/a	n/a	VW1891
C39050-5MSD	W51987.D	100	03/30/15	JC	n/a	n/a	VW1891
C39050-5	W51958.D	10	03/29/15	JC	n/a	n/a	VW1891
C39050-5	W51953.D	100	03/29/15	JC	n/a	n/a	VW1891

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39033-5, C39033-6, C39033-7, C39033-10

CAS No.	Compound	C39050-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2000	1860	93	2000	1810	91	3	77-122/16
100-41-4	Ethylbenzene	ND		2000	1950	98	2000	1920	96	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	4350 [a]		2000	6280	97	2000	6210	93	1	73-132/17
108-88-3	Toluene	ND		2000	1930	97	2000	1900	95	2	75-122/17
1330-20-7	Xylene (total)	ND		6000	5740	96	6000	5670	95	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39050-5	C39050-5	Limits
1868-53-7	Dibromofluoromethane	99%	98%	99%	100%	70-130%
2037-26-5	Toluene-D8	97%	98%	97%	98%	70-130%
460-00-4	4-Bromofluorobenzene	96%	97%	99%	99%	70-130%

(a) Result is from Run #2.

* = Outside of Control Limits.

Northern California
ACCUTEST
LABORATORIES

04/07/15

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

Accutest Job Number: C39050

Sampling Date: 03/24/15

Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Richard Byrd

Total number of pages in report: 74

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Elvin Kumar 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **5**
Section 3: Summary of Hits **6**
Section 4: Sample Results **8**
4.1: C39050-1: WR-215A 9
4.2: C39050-2: WR-215A DUP 12
4.3: C39050-3: WR-217A 15
4.4: C39050-4: WR-298A 17
4.5: C39050-5: WR-296A 18
4.6: C39050-6: R-046A 19
4.7: C39050-7: R-032A 20
4.8: C39050-8: R-030A 21
4.9: C39050-9: R-031A 22
4.10: C39050-10: PCM-506A 23
4.11: C39050-11: WR-219A 24
4.12: C39050-12: WR-223A 27
4.13: C39050-13: WR-225A 30
4.14: C39050-14: WR-230A 31
4.15: C39050-15: TRIP BLANK 32
Section 5: Misc. Forms **35**
5.1: Arizona Qualifiers 36
5.2: Chain of Custody 37
Section 6: GC/MS Volatiles - QC Data Summaries **40**
6.1: Method Blank Summary 41
6.2: Blank Spike/Blank Spike Duplicate Summary 51
6.3: Laboratory Control Sample Summary 61
6.4: Matrix Spike/Matrix Spike Duplicate Summary 66

Sample Summary

City of Tucson Environmental Services

Job No: C39050

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C39050-1	03/24/15	08:07 GB	03/25/15	AQ	Ground Water	WR-215A
C39050-2	03/24/15	08:10 GB	03/25/15	AQ	Ground Water	WR-215A DUP
C39050-3	03/24/15	08:22 GB	03/25/15	AQ	Ground Water	WR-217A
C39050-4	03/24/15	08:40 GB	03/25/15	AQ	Ground Water	WR-298A
C39050-5	03/24/15	08:55 GB	03/25/15	AQ	Ground Water	WR-296A
C39050-6	03/24/15	09:10 GB	03/25/15	AQ	Ground Water	R-046A
C39050-7	03/24/15	09:33 GB	03/25/15	AQ	Ground Water	R-032A
C39050-8	03/24/15	10:10 GB	03/25/15	AQ	Ground Water	R-030A
C39050-9	03/24/15	10:30 GB	03/25/15	AQ	Ground Water	R-031A
C39050-10	03/24/15	10:55 GB	03/25/15	AQ	Ground Water	PCM-506A
C39050-11	03/24/15	11:10 GB	03/25/15	AQ	Ground Water	WR-219A
C39050-12	03/24/15	11:40 GB	03/25/15	AQ	Ground Water	WR-223A
C39050-13	03/24/15	12:10 GB	03/25/15	AQ	Ground Water	WR-225A

Sample Summary
(continued)

City of Tucson Environmental Services

Job No: C39050

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C39050-14	03/24/15	12:25	GB	03/25/15	AQ	Ground Water	WR-230A
C39050-15	03/24/15	00:00	GB	03/25/15	AQ	Trip Blank Water	TRIP BLANK

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	City of Tucson Environmental Services	**Job No**	C39050
Site:	Price Service Center	**Report Date**	4/7/2015 11:06:14 PM

14 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/24/2015 and were received at Accutest on 03/25/2015 properly preserved, at 3.4 Deg. C and intact. These Samples received an Accutest job number of C39050. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VR1264

- Sample(s) C39050-4MS, C39050-4MSD were used as the QC samples indicated.
- Matrix Spike Duplicate for Methyl Tert Butyl Ether is outside control limits due to high level in sample relative to spike amount. The associated blank spike recoveries were acceptable.

Matrix: AQ **Batch ID:** VV949

- Sample(s) C39074-1MS, C39074-1MSD were used as the QC samples indicated.
- C39050-1, C39050-2: Dilution required due to high concentration of non-target hydrocarbons.

Matrix: AQ **Batch ID:** VW1891

- Sample(s) C39050-5MS, C39050-5MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VW1892

- Sample(s) C39074-11MS, C39074-11MSD were used as the QC samples indicated.
- Sample(s) C39050-11, C39050-12, C39050-15 have for Bromoform a CCV outside of control limits (biased high); not detected in samples.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Trichloroethylene, Bromobenzene are outside laboratory control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable. Additionally, the sample spiked for the MS/MSD was not one of the samples from this SDG/work order; therefore, there are no data quality issues that affect this sample set.

Matrix: AQ **Batch ID:** VW1894

- Sample(s) D69094-21MS, D69094-21MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C39050
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/24/15

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C39050-1	**WR-215A**					
Benzene [a]		72.3	20		ug/l	SW846 8260B
Ethylbenzene [a]		334	20		ug/l	SW846 8260B
Isopropylbenzene [a]		21.9	20		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		1750	20		ug/l	SW846 8260B
Naphthalene [a]		262	100		ug/l	SW846 8260B
n-Propylbenzene [a]		70.7	40		ug/l	SW846 8260B
1,2,4-Trimethylbenzene [a]		509	40		ug/l	SW846 8260B
1,3,5-Trimethylbenzene [a]		108	40		ug/l	SW846 8260B
Xylene (total) [a]		358	40		ug/l	SW846 8260B
C39050-2	**WR-215A DUP**					
Benzene [a]		68.4	20		ug/l	SW846 8260B
Ethylbenzene [a]		335	20		ug/l	SW846 8260B
Isopropylbenzene [a]		24.8	20		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		1650	20		ug/l	SW846 8260B
Naphthalene [a]		263	100		ug/l	SW846 8260B
n-Propylbenzene [a]		81.8	40		ug/l	SW846 8260B
1,2,4-Trimethylbenzene [a]		543	40		ug/l	SW846 8260B
1,3,5-Trimethylbenzene [a]		111	40		ug/l	SW846 8260B
Xylene (total) [a]		352	40		ug/l	SW846 8260B
C39050-3	**WR-217A**					
No hits reported in this sample.						
C39050-4	**WR-298A**					
Methyl Tert Butyl Ether [b]		4900	50		ug/l	SW846 8260B
C39050-5	**WR-296A**					
Methyl Tert Butyl Ether [b]		4350	100		ug/l	SW846 8260B
C39050-6	**R-046A**					
Methyl Tert Butyl Ether		78.5	1.0		ug/l	SW846 8260B
C39050-7	**R-032A**					
Benzene [b]		6.1	2.5		ug/l	SW846 8260B
Ethylbenzene [b]		10.3	2.5		ug/l	SW846 8260B
Xylene (total) [b]		1770	50		ug/l	SW846 8260B

Summary of Hits

Job Number: C39050
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/24/15

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Methyl Tert Butyl Ether [b]		1100	25		ug/l	SW846 8260B
C39050-8	**R-030A**					
Benzene [b]		813	50		ug/l	SW846 8260B
Toluene [b]		3240	50		ug/l	SW846 8260B
Ethylbenzene [b]		587	50		ug/l	SW846 8260B
Xylene (total) [b]		6230	100		ug/l	SW846 8260B
Methyl Tert Butyl Ether [b]		124	5.0		ug/l	SW846 8260B
C39050-9	**R-031A**					
Benzene [b]		1290	100		ug/l	SW846 8260B
Toluene [b]		3060	100		ug/l	SW846 8260B
Ethylbenzene [b]		928	10		ug/l	SW846 8260B
Xylene (total) [b]		4380	200		ug/l	SW846 8260B
Methyl Tert Butyl Ether [b]		4650	100		ug/l	SW846 8260B
C39050-10	**PCM-506A**					
No hits reported in this sample.						
C39050-11	**WR-219A**					
No hits reported in this sample.						
C39050-12	**WR-223A**					
1,2-Dichloroethane		3.0	0.50		ug/l	SW846 8260B
Methyl Tert Butyl Ether [b]		121	2.0		ug/l	SW846 8260B
C39050-13	**WR-225A**					
No hits reported in this sample.						
C39050-14	**WR-230A**					
No hits reported in this sample.						
C39050-15	**TRIP BLANK**					
No hits reported in this sample.						

(a) Dilution required due to high concentration of non-target hydrocarbons. AZ:D1
(b) AZ:D2

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	WR-215A		
Lab Sample ID:	C39050-1	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	V23823.D	20	03/30/15	EA	n/a	n/a	VV949
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	400	ug/l	
71-43-2	Benzene	72.3	20	ug/l	
108-86-1	Bromobenzene	ND	20	ug/l	
74-97-5	Bromochloromethane	ND	20	ug/l	
75-27-4	Bromodichloromethane	ND	10	ug/l	
75-25-2	Bromoform	ND	10	ug/l	
104-51-8	n-Butylbenzene	ND	40	ug/l	
135-98-8	sec-Butylbenzene	ND	40	ug/l	
98-06-6	tert-Butylbenzene	ND	40	ug/l	
108-90-7	Chlorobenzene	ND	10	ug/l	
75-00-3	Chloroethane	ND	10	ug/l	
67-66-3	Chloroform	ND	10	ug/l	
95-49-8	o-Chlorotoluene	ND	40	ug/l	
106-43-4	p-Chlorotoluene	ND	40	ug/l	
75-15-0	Carbon disulfide	ND	20	ug/l	
56-23-5	Carbon tetrachloride	ND	10	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	ug/l	
563-58-6	1,1-Dichloropropene	ND	20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	40	ug/l	
106-93-4	1,2-Dibromoethane	ND	20	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	ug/l	
142-28-9	1,3-Dichloropropane	ND	20	ug/l	
594-20-7	2,2-Dichloropropane	ND	20	ug/l	
124-48-1	Dibromochloromethane	ND	10	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-215A		
Lab Sample ID:	C39050-1	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	10	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	ug/l	
100-41-4	Ethylbenzene	334	20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	40	ug/l	
591-78-6	2-Hexanone	ND	200	ug/l	
87-68-3	Hexachlorobutadiene	ND	40	ug/l	
98-82-8	Isopropylbenzene	21.9	20	ug/l	
99-87-6	p-Isopropyltoluene	ND	40	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	200	ug/l	
74-83-9	Methyl bromide	ND	40	ug/l	
74-87-3	Methyl chloride	ND	20	ug/l	
74-95-3	Methylene bromide	ND	20	ug/l	
75-09-2	Methylene chloride	ND	100	ug/l	
78-93-3	Methyl ethyl ketone	ND	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1750	20	ug/l	
91-20-3	Naphthalene	262	100	ug/l	
103-65-1	n-Propylbenzene	70.7	40	ug/l	
100-42-5	Styrene	ND	20	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	200	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	40	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	40	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	40	ug/l	
95-63-6	1,2,4-Trimethylbenzene	509	40	ug/l	
108-67-8	1,3,5-Trimethylbenzene	108	40	ug/l	
127-18-4	Tetrachloroethylene	ND	10	ug/l	
108-88-3	Toluene	ND	20	ug/l	
79-01-6	Trichloroethylene	ND	10	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	10	ug/l	
1330-20-7	Xylene (total)	358	40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-215A		
Lab Sample ID:	C39050-1	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q

(a) Dilution required due to high concentration of non-target hydrocarbons. AZ:D1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-215A DUP		
Lab Sample ID:	C39050-2	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	V23824.D	20	03/30/15	EA	n/a	n/a	VV949
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	400	ug/l	
71-43-2	Benzene	68.4	20	ug/l	
108-86-1	Bromobenzene	ND	20	ug/l	
74-97-5	Bromochloromethane	ND	20	ug/l	
75-27-4	Bromodichloromethane	ND	10	ug/l	
75-25-2	Bromoform	ND	10	ug/l	
104-51-8	n-Butylbenzene	ND	40	ug/l	
135-98-8	sec-Butylbenzene	ND	40	ug/l	
98-06-6	tert-Butylbenzene	ND	40	ug/l	
108-90-7	Chlorobenzene	ND	10	ug/l	
75-00-3	Chloroethane	ND	10	ug/l	
67-66-3	Chloroform	ND	10	ug/l	
95-49-8	o-Chlorotoluene	ND	40	ug/l	
106-43-4	p-Chlorotoluene	ND	40	ug/l	
75-15-0	Carbon disulfide	ND	20	ug/l	
56-23-5	Carbon tetrachloride	ND	10	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	ug/l	
563-58-6	1,1-Dichloropropene	ND	20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	40	ug/l	
106-93-4	1,2-Dibromoethane	ND	20	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	ug/l	
142-28-9	1,3-Dichloropropane	ND	20	ug/l	
594-20-7	2,2-Dichloropropane	ND	20	ug/l	
124-48-1	Dibromochloromethane	ND	10	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-215A DUP		
Lab Sample ID:	C39050-2	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	10	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	ug/l	
100-41-4	Ethylbenzene	335	20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	40	ug/l	
591-78-6	2-Hexanone	ND	200	ug/l	
87-68-3	Hexachlorobutadiene	ND	40	ug/l	
98-82-8	Isopropylbenzene	24.8	20	ug/l	
99-87-6	p-Isopropyltoluene	ND	40	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	200	ug/l	
74-83-9	Methyl bromide	ND	40	ug/l	
74-87-3	Methyl chloride	ND	20	ug/l	
74-95-3	Methylene bromide	ND	20	ug/l	
75-09-2	Methylene chloride	ND	100	ug/l	
78-93-3	Methyl ethyl ketone	ND	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1650	20	ug/l	
91-20-3	Naphthalene	263	100	ug/l	
103-65-1	n-Propylbenzene	81.8	40	ug/l	
100-42-5	Styrene	ND	20	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	200	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	20	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	40	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	40	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	40	ug/l	
95-63-6	1,2,4-Trimethylbenzene	543	40	ug/l	
108-67-8	1,3,5-Trimethylbenzene	111	40	ug/l	
127-18-4	Tetrachloroethylene	ND	10	ug/l	
108-88-3	Toluene	ND	20	ug/l	
79-01-6	Trichloroethylene	ND	10	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	ug/l	
75-01-4	Vinyl chloride	ND	10	ug/l	
1330-20-7	Xylene (total)	352	40	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-215A DUP		
Lab Sample ID:	C39050-2	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q

(a) Dilution required due to high concentration of non-target hydrocarbons. AZ:D1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-217A		
Lab Sample ID:	C39050-3	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V23814.D	1	03/30/15	EA	n/a	n/a	VV949
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-217A		
Lab Sample ID:	C39050-3	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-298A		
Lab Sample ID:	C39050-4	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	R33500.D	10	03/28/15	BQ	n/a	n/a	VR1264
Run #2 [a]	R33488.D	50	03/28/15	BQ	n/a	n/a	VR1264

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4900 [b]	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%	103%	70-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	95%	96%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-296A		
Lab Sample ID:	C39050-5	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51958.D	10	03/29/15	JC	n/a	n/a	VW1891
Run #2 [a]	W51953.D	100	03/29/15	JC	n/a	n/a	VW1891

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	10	ug/l	
108-88-3	Toluene	ND	10	ug/l	
100-41-4	Ethylbenzene	ND	10	ug/l	
1330-20-7	Xylene (total)	ND	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4350 [b]	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	100%	70-130%
2037-26-5	Toluene-D8	97%	98%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-046A		
Lab Sample ID:	C39050-6	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33489.D	1	03/28/15	BQ	n/a	n/a	VR1264
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	78.5	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	96%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-032A		
Lab Sample ID:	C39050-7	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51959.D	2.5	03/29/15	JC	n/a	n/a	VW1891
Run #2 [a]	W51954.D	25	03/29/15	JC	n/a	n/a	VW1891

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	6.1	2.5	ug/l	
108-88-3	Toluene	ND	2.5	ug/l	
100-41-4	Ethylbenzene	10.3	2.5	ug/l	
1330-20-7	Xylene (total)	1770 [b]	50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	1100 [b]	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	100%	70-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	102%	101%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-030A		
Lab Sample ID:	C39050-8	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51981.D	5	03/30/15	JC	n/a	n/a	VW1892
Run #2 [a]	W51976.D	50	03/30/15	JC	n/a	n/a	VW1892

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	813 [b]	50	ug/l	
108-88-3	Toluene	3240 [b]	50	ug/l	
100-41-4	Ethylbenzene	587 [b]	50	ug/l	
1330-20-7	Xylene (total)	6230 [b]	100	ug/l	
1634-04-4	Methyl Tert Butyl Ether	124	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%	101%	70-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	103%	99%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-031A		
Lab Sample ID:	C39050-9	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W51982.D	10	03/30/15	JC	n/a	n/a	VW1892
Run #2 [a]	W51977.D	100	03/30/15	JC	n/a	n/a	VW1892

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	1290 [b]	100	ug/l	
108-88-3	Toluene	3060 [b]	100	ug/l	
100-41-4	Ethylbenzene	928	10	ug/l	
1330-20-7	Xylene (total)	4380 [b]	200	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4650 [b]	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	97%	100%	70-130%
2037-26-5	Toluene-D8	97%	100%	70-130%
460-00-4	4-Bromofluorobenzene	98%	100%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-506A		
Lab Sample ID:	C39050-10	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q27999.D	1	03/28/15	EA	n/a	n/a	VQ1213
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-219A		
Lab Sample ID:	C39050-11	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51971.D	1	03/30/15	JC	n/a	n/a	VW1892
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform [a]	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-219A		
Lab Sample ID:	C39050-11	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-219A		
Lab Sample ID:	C39050-11	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q

(a) CCV outside of control limits (biased high); not detected in sample. AZ:V1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-223A		
Lab Sample ID:	C39050-12	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51972.D	1	03/30/15	JC	n/a	n/a	VW1892
Run #2 [a]	W52037.D	2	03/31/15	JC	n/a	n/a	VW1894

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform [b]	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	3.0	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-223A		
Lab Sample ID:	C39050-12	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	121 [c]	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%	99%	70-130%
2037-26-5	Toluene-D8	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-223A		
Lab Sample ID:	C39050-12	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q

(a) AZ:D2
(b) CCV outside of control limits (biased high); not detected in sample. AZ:V1
(c) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-225A		
Lab Sample ID:	C39050-13	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q28000.D	1	03/28/15	EA	n/a	n/a	VQ1213
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	93%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	WR-230A		
Lab Sample ID:	C39050-14	**Date Sampled:**	03/24/15
Matrix:	AQ - Ground Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q28001.D	1	03/28/15	EA	n/a	n/a	VQ1213
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39050-15	**Date Sampled:**	03/24/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W51970.D	1	03/30/15	JC	n/a	n/a	VW1892
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform [a]	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39050-15	**Date Sampled:**	03/24/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39050-15	**Date Sampled:**	03/24/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/25/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q

(a) CCV outside of control limits (biased high); not detected in sample. AZ:V1

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Northern California
ACCUTEST
LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D1	Sample required dilution due to matrix.
D2	Sample required dilution due to high concentration of target analyte.
M1	Matrix spike recovery was high; the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
V1	CCV recovery was above method acceptance limits. This target analyte was not detected in the sample.

PHOENIX

(1 of 2)

CHAIN OF CUSTODY

ACCUTEST® LABORATORIES

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 8066 3210 6210
Bottle Order Control #
Accutest Quote #
Accutest NC Job #: C EQ C39050

Client / Reporting Information

Company Name: City of Tucson
Address: P.O. Box 27210
City: Tucson State: AZ Zip: 85726
Project Contact: Lori Ehman
Phone #: 520-791-3175
Samplers's Name: L Byrnes

Project Information

Project Name: PRICE SERVICE CENTER
Street:
City: State:
Project #: PO 1064
EMAIL:
Client Purchase Order #:

Requested Analysis

BTEX / MTBE
8260

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-OI
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NaOHZnAc	NaHSO4	MeOH	ENCORE	BTEX / MTBE	8260	LAB USE ONLY
1	WR-215A	3/24/15	0807	OB	GW	3										X	
2	WR-215A dup	3/24/15	0810	OB	GW	3										X	
3	WR-217A	3/24/15	0822	OB	GW	3										X	
4	WR-298A	3/24/15	0840	OB	GW	3									X		
5	WR-296A	3/24/15	0855	OB	GW	3									X		
6	R-046A	3/24/15	0910	OB	GW	3									X		
7	R-032A	3/24/15	0933	OB	GW	3									X		
8	R-030A	3/24/15	1010	OB	GW	3									X		
9	R-031A	3/24/15	1030	OB	GW	3									X		
10	PCM-506A	3/24/15	1055	OB	GW	3									X		

Turnaround Time (Business days)

Approved By/ Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker — EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 L Byrnes	3/24/15 1328	1 [signature]	2 [signature]	3/24/15 1700	2 Fedex
Relinquished by: 3 Fedex	Date Time: 3/25/15 0940	Received By: 3 [signature]	Relinquished By: 4	Date Time:	Received By: 4 3.4 / 3.4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # Y INTACT	Appropriate Bottle / Pres. Y / N; Labels match CoC? Y / N	Headspace Y / N; Separate Receiving Check List used: Y / N

On Ice Y / N — Cooler Temp.: ~~3.4~~ / 3.0 / ~~2.0~~ / ~~1.0~~ LB

5.2 5

C39050: Chain of Custody
Page 1 of 3

(2 of 2)

PHOENIX

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CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 806632106710
Bottle Order Control #
Accutest Quote #
Accutest NC Job #: C C39050

Client / Reporting Information

Company Name: City of Tucson
Address: P.O. Box 27210
City / State / Zip: Tucson Az 85726
Project Contact: Lori Ehman
Phone #: 520-791-3175
Samplers's Name: L Byam

Project Information

Project Name: PRICE SERVICE CENTER
Street:
City / State:
Project #: PO 1064
EMAIL:
Client Purchase Order #:

Requested Analysis

BTEX / MTBE
8260

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	BTEX / MTBE	8260	LAB USE ONLY
11	WR - 219A	3/24/15	1110	OB	GW	3										X	
12	WR - 223A	3/24/15	1140	OB	GW	3										X	
13	WR - 225A	3/24/15	1210	OB	GW	3									X		
14	WR - 230A	3/24/15	1225	OB	GW	3									X		
15	TRIP BLANK															X	

Turnaround Time (Business days)

Approved By/ Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker
- EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1 L Byam	3/24/15 1328	1 [illegible]	2 [illegible]	3/24/15 1700	2 Fedex
Relinquished by: 3 FEDEX	Date Time: 3/25/15 0910	Received By: 3 [illegible]	Relinquished By: 4	Date Time:	Received By: 4
Relinquished by: 5	Date Time:	Received By: 5	Custody Seal # Y	Appropriate Bottle / Pres. Y/N; Labels match Coc? Y / N; Headspace Y/N; Separate Receiving Check List used: Y / N; On Ice Y/N	Cooler Temp. ___ oC

5.2 5

C39050: Chain of Custody
Page 2 of 3

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C39050 **Client:** CITY OF TUCSON **Project:** PRICE SERVICE CENTER

Date / Time Received: 3/25/2015 9:40:00 AM **Delivery Method:** FedEx **Airbill #'s:** 806632106210

Cooler Temps (Initial/Adjusted): #1: (3.4/3.4);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Therm ID:	IR1;	
3. Cooler media:	Ice (Bag)	
4. No. Coolers:	3	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

5.2 5

C39050: Chain of Custody
Page 3 of 3

Northern California
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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1213-MB	Q27994.D	1	03/28/15	EA	n/a	n/a	VQ1213

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-10, C39050-13, C39050-14

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	90%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1264-MB	R33481.D	1	03/28/15	BQ	n/a	n/a	VR1264

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-4, C39050-6

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	106%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1891-MB	W51943.D	1	03/29/15	JC	n/a	n/a	VW1891

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-5, C39050-7

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV949-MB	V23809.D	1	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV949-MB	V23809.D	1	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	95%	70-130%

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV949-MB	V23809.D	1	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	99%	70-130%

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1892-MB	W51969.D	1	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1892-MB	W51969.D	1	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	99%	70-130%

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1892-MB	W51969.D	1	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	96%	70-130%

Method Blank Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1894-MB	W52020.D	1	03/31/15	JC	n/a	n/a	VW1894

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-12

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1213-BS	Q27991.D	1	03/27/15	EA	n/a	n/a	VQ1213
VQ1213-BSD	Q27992.D	1	03/27/15	EA	n/a	n/a	VQ1213

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-10, C39050-13, C39050-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.3	92	18.4	92	1	77-122/25
100-41-4	Ethylbenzene	20	19.0	95	19.1	96	1	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	16.2	81	16.3	82	1	73-132/17
108-88-3	Toluene	20	18.9	95	19.0	95	1	75-122/17
1330-20-7	Xylene (total)	60	56.8	95	57.4	96	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	90%	91%	70-130%
2037-26-5	Toluene-D8	97%	98%	70-130%
460-00-4	4-Bromofluorobenzene	94%	93%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1264-BS	R33478.D	1	03/28/15	BQ	n/a	n/a	VR1264
VR1264-BSD	R33479.D	1	03/28/15	BQ	n/a	n/a	VR1264

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-4, C39050-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.9	95	19.1	96	1	77-122/25
100-41-4	Ethylbenzene	20	18.7	94	19.1	96	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.9	105	20.7	104	1	73-132/17
108-88-3	Toluene	20	18.5	93	18.9	95	2	75-122/17
1330-20-7	Xylene (total)	60	55.5	93	56.3	94	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	106%	104%	70-130%
2037-26-5	Toluene-D8	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	99%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1891-BS	W51940.D	1	03/29/15	JC	n/a	n/a	VW1891
VW1891-BSD	W51941.D	1	03/29/15	JC	n/a	n/a	VW1891

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-5, C39050-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.4	92	18.3	92	1	77-122/25
100-41-4	Ethylbenzene	20	19.2	96	18.8	94	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.6	103	20.7	104	0	73-132/17
108-88-3	Toluene	20	18.6	93	18.4	92	1	75-122/17
1330-20-7	Xylene (total)	60	56.2	94	56.1	94	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	102%	70-130%
2037-26-5	Toluene-D8	98%	98%	70-130%
460-00-4	4-Bromofluorobenzene	99%	100%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV949-BS	V23806.D	1	03/30/15	EA	n/a	n/a	VV949
VV949-BSD	V23807.D	1	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	90.8	114	93.6	117	3	38-159/24
71-43-2	Benzene	20	18.4	92	18.5	93	1	77-122/25
108-86-1	Bromobenzene	20	19.3	97	19.9	100	3	76-126/17
74-97-5	Bromochloromethane	20	20.6	103	20.8	104	1	77-130/17
75-27-4	Bromodichloromethane	20	19.5	98	19.9	100	2	75-127/16
75-25-2	Bromoform	20	21.8	109	21.8	109	0	69-141/17
104-51-8	n-Butylbenzene	20	17.9	90	17.9	90	0	72-129/18
135-98-8	sec-Butylbenzene	20	17.9	90	18.0	90	1	74-128/18
98-06-6	tert-Butylbenzene	20	18.7	94	18.9	95	1	73-127/18
108-90-7	Chlorobenzene	20	18.7	94	19.0	95	2	77-122/16
75-00-3	Chloroethane	20	16.0	80	16.2	81	1	69-133/18
67-66-3	Chloroform	20	19.4	97	19.6	98	1	74-126/17
95-49-8	o-Chlorotoluene	20	18.4	92	18.4	92	0	72-127/20
106-43-4	p-Chlorotoluene	20	18.0	90	18.1	91	1	68-127/18
75-15-0	Carbon disulfide	20	17.6	88	17.7	89	1	56-137/19
56-23-5	Carbon tetrachloride	20	18.8	94	18.9	95	1	71-133/19
75-34-3	1,1-Dichloroethane	20	18.0	90	18.2	91	1	71-125/17
75-35-4	1,1-Dichloroethylene	20	16.2	81	16.7	84	3	66-125/20
563-58-6	1,1-Dichloropropene	20	17.5	88	17.9	90	2	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	20.1	101	19.9	100	1	65-131/20
106-93-4	1,2-Dibromoethane	20	20.4	102	20.4	102	0	75-135/17
107-06-2	1,2-Dichloroethane	20	20.0	100	20.2	101	1	71-131/17
78-87-5	1,2-Dichloropropane	20	18.8	94	19.3	97	3	78-124/16
142-28-9	1,3-Dichloropropane	20	20.1	101	20.3	102	1	78-123/16
594-20-7	2,2-Dichloropropane	20	18.1	91	17.8	89	2	70-131/19
124-48-1	Dibromochloromethane	20	20.4	102	20.5	103	0	76-132/16
75-71-8	Dichlorodifluoromethane	20	15.8	79	15.4	77	3	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	18.8	94	19.1	96	2	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	19.8	99	20.3	102	2	72-130/16
541-73-1	m-Dichlorobenzene	20	18.5	93	18.8	94	2	75-124/16
95-50-1	o-Dichlorobenzene	20	18.9	95	19.0	95	1	76-124/16
106-46-7	p-Dichlorobenzene	20	19.0	95	19.0	95	0	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	17.7	89	17.7	89	0	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	19.0	95	19.3	97	2	71-126/16
100-41-4	Ethylbenzene	20	18.4	92	18.3	92	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	21.0	105	21.5	108	2	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV949-BS	V23806.D	1	03/30/15	EA	n/a	n/a	VV949
VV949-BSD	V23807.D	1	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	92.4	116	91.5	114	1	67-150/22
87-68-3	Hexachlorobutadiene	20	18.4	92	18.6	93	1	69-135/20
98-82-8	Isopropylbenzene	20	17.9	90	18.0	90	1	61-125/17
99-87-6	p-Isopropyltoluene	20	17.8	89	17.7	89	1	68-127/18
108-10-1	4-Methyl-2-pentanone	80	92.3	115	91.8	115	1	71-142/21
74-83-9	Methyl bromide	20	18.1	91	18.2	91	1	68-132/18
74-87-3	Methyl chloride	20	17.3	87	17.3	87	0	39-150/28
74-95-3	Methylene bromide	20	20.6	103	21.0	105	2	77-127/16
75-09-2	Methylene chloride	20	17.6	88	18.0	90	2	67-128/18
78-93-3	Methyl ethyl ketone	80	93.4	117	95.8	120	3	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	20.2	101	21.0	105	4	73-132/17
91-20-3	Naphthalene	20	18.1	91	18.1	91	0	70-136/20
103-65-1	n-Propylbenzene	20	17.4	87	17.6	88	1	71-127/17
100-42-5	Styrene	20	19.4	97	19.7	99	2	72-134/16
75-65-0	Tert-Butyl Alcohol	100	104	104	109	109	5	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	19.7	99	19.9	100	1	77-130/16
71-55-6	1,1,1-Trichloroethane	20	18.3	92	18.5	93	1	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	20.1	101	20.2	101	0	77-129/17
79-00-5	1,1,2-Trichloroethane	20	19.9	100	19.7	99	1	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	19.2	96	19.2	96	0	70-133/18
96-18-4	1,2,3-Trichloropropane	20	19.5	98	19.5	98	0	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	18.9	95	19.1	96	1	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	18.0	90	18.2	91	1	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	18.4	92	18.7	94	2	77-129/17
127-18-4	Tetrachloroethylene	20	17.6	88	18.0	90	2	69-127/20
108-88-3	Toluene	20	18.4	92	18.4	92	0	75-122/17
79-01-6	Trichloroethylene	20	18.3	92	18.5	93	1	78-123/17
75-69-4	Trichlorofluoromethane	20	19.1	96	18.8	94	2	65-136/23
75-01-4	Vinyl chloride	20	19.3	97	19.3	97	0	57-146/22
1330-20-7	Xylene (total)	60	54.6	91	55.6	93	2	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	98%	99%	70-130%
2037-26-5	Toluene-D8	95%	95%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV949-BS	V23806.D	1	03/30/15	EA	n/a	n/a	VV949
VV949-BSD	V23807.D	1	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	98%	98%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1892-BS	W51966.D	1	03/30/15	JC	n/a	n/a	VW1892
VW1892-BSD	W51967.D	1	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	76.0	95	76.9	96	1	38-159/24
71-43-2	Benzene	20	18.6	93	18.8	94	1	77-122/25
108-86-1	Bromobenzene	20	20.2	101	20.4	102	1	76-126/17
74-97-5	Bromochloromethane	20	19.9	100	19.9	100	0	77-130/17
75-27-4	Bromodichloromethane	20	20.5	103	20.5	103	0	75-127/16
75-25-2	Bromoform	20	22.3	112	22.3	112	0	69-141/17
104-51-8	n-Butylbenzene	20	17.8	89	18.7	94	5	72-129/18
135-98-8	sec-Butylbenzene	20	18.2	91	19.1	96	5	74-128/18
98-06-6	tert-Butylbenzene	20	19.5	98	20.4	102	5	73-127/18
108-90-7	Chlorobenzene	20	19.5	98	19.7	99	1	77-122/16
75-00-3	Chloroethane	20	15.4	77	15.5	78	1	69-133/18
67-66-3	Chloroform	20	20.1	101	20.4	102	1	74-126/17
95-49-8	o-Chlorotoluene	20	18.7	94	19.3	97	3	72-127/20
106-43-4	p-Chlorotoluene	20	21.0	105	21.0	105	0	68-127/18
75-15-0	Carbon disulfide	20	18.1	91	18.9	95	4	56-137/19
56-23-5	Carbon tetrachloride	20	20.3	102	21.6	108	6	71-133/19
75-34-3	1,1-Dichloroethane	20	17.9	90	18.1	91	1	71-125/17
75-35-4	1,1-Dichloroethylene	20	16.0	80	16.9	85	5	66-125/20
563-58-6	1,1-Dichloropropene	20	17.8	89	18.8	94	5	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	19.4	97	19.3	97	1	65-131/20
106-93-4	1,2-Dibromoethane	20	20.9	105	20.8	104	0	75-135/17
107-06-2	1,2-Dichloroethane	20	21.1	106	21.4	107	1	71-131/17
78-87-5	1,2-Dichloropropane	20	18.2	91	18.3	92	1	78-124/16
142-28-9	1,3-Dichloropropane	20	20.6	103	20.6	103	0	78-123/16
594-20-7	2,2-Dichloropropane	20	19.7	99	20.2	101	3	70-131/19
124-48-1	Dibromochloromethane	20	21.4	107	21.5	108	0	76-132/16
75-71-8	Dichlorodifluoromethane	20	17.0	85	15.5	78	9	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	18.3	92	18.5	93	1	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	20.2	101	20.2	101	0	72-130/16
541-73-1	m-Dichlorobenzene	20	19.4	97	19.5	98	1	75-124/16
95-50-1	o-Dichlorobenzene	20	19.5	98	19.6	98	1	76-124/16
106-46-7	p-Dichlorobenzene	20	19.5	98	19.6	98	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	17.3	87	17.8	89	3	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	20.2	101	20.0	100	1	71-126/16
100-41-4	Ethylbenzene	20	19.5	98	20.0	100	3	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	20.5	103	20.6	103	0	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1892-BS	W51966.D	1	03/30/15	JC	n/a	n/a	VW1892
VW1892-BSD	W51967.D	1	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	86.4	108	85.3	107	1	67-150/22
87-68-3	Hexachlorobutadiene	20	18.3	92	20.1	101	9	69-135/20
98-82-8	Isopropylbenzene	20	19.3	97	19.9	100	3	61-125/17
99-87-6	p-Isopropyltoluene	20	18.9	95	19.9	100	5	68-127/18
108-10-1	4-Methyl-2-pentanone	80	85.5	107	84.0	105	2	71-142/21
74-83-9	Methyl bromide	20	17.4	87	17.4	87	0	68-132/18
74-87-3	Methyl chloride	20	15.8	79	15.7	79	1	39-150/28
74-95-3	Methylene bromide	20	20.8	104	20.8	104	0	77-127/16
75-09-2	Methylene chloride	20	17.1	86	17.4	87	2	67-128/18
78-93-3	Methyl ethyl ketone	80	83.9	105	83.5	104	0	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	20.6	103	20.8	104	1	73-132/17
91-20-3	Naphthalene	20	18.0	90	18.3	92	2	70-136/20
103-65-1	n-Propylbenzene	20	18.4	92	19.0	95	3	71-127/17
100-42-5	Styrene	20	20.3	102	20.3	102	0	72-134/16
75-65-0	Tert-Butyl Alcohol	100	89.9	90	105	105	15	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	21.1	106	21.3	107	1	77-130/16
71-55-6	1,1,1-Trichloroethane	20	19.8	99	20.7	104	4	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	19.3	97	19.0	95	2	77-129/17
79-00-5	1,1,2-Trichloroethane	20	19.4	97	19.2	96	1	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	18.7	94	19.0	95	2	70-133/18
96-18-4	1,2,3-Trichloropropane	20	18.0	90	18.0	90	0	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	18.9	95	19.1	96	1	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	19.3	97	19.7	99	2	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	20.1	101	20.9	105	4	77-129/17
127-18-4	Tetrachloroethylene	20	18.8	94	19.6	98	4	69-127/20
108-88-3	Toluene	20	19.3	97	19.8	99	3	75-122/17
79-01-6	Trichloroethylene	20	18.7	94	19.2	96	3	78-123/17
75-69-4	Trichlorofluoromethane	20	20.6	103	20.2	101	2	65-136/23
75-01-4	Vinyl chloride	20	15.7	79	15.6	78	1	57-146/22
1330-20-7	Xylene (total)	60	58.1	97	58.9	98	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	101%	70-130%
2037-26-5	Toluene-D8	97%	98%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1892-BS	W51966.D	1	03/30/15	JC	n/a	n/a	VW1892
VW1892-BSD	W51967.D	1	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	99%	98%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1894-BS	W52017.D	1	03/31/15	JC	n/a	n/a	VW1894
VW1894-BSD	W52018.D	1	03/31/15	JC	n/a	n/a	VW1894

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	20	21.0	105	20.3	102	3	73-132/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	104%	101%	70-130%
2037-26-5	Toluene-D8	100%	97%	70-130%
460-00-4	4-Bromofluorobenzene	100%	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1264-LCS	R33480.D	1	03/28/15	BQ	n/a	n/a	VR1264

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-4, C39050-6

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1891-LCS	W51942.D	1	03/29/15	JC	n/a	n/a	VW1891

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-5, C39050-7

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1892-LCS	W51968.D	1	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV949-LCS	V23810.D	1	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	97%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1894-LCS	W52019.D	1	03/31/15	JC	n/a	n/a	VW1894

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-12

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39050-4MS	R33501.D	50	03/28/15	BQ	n/a	n/a	VR1264
C39050-4MSD	R33502.D	50	03/28/15	BQ	n/a	n/a	VR1264
C39050-4 [a]	R33500.D	10	03/28/15	BQ	n/a	n/a	VR1264
C39050-4 [a]	R33488.D	50	03/28/15	BQ	n/a	n/a	VR1264

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-4, C39050-6

CAS No.	Compound	C39050-4 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		1000	929	93	1000	938	94	1	77-122/16
100-41-4	Ethylbenzene	ND		1000	933	93	1000	933	93	0	76-126/17
1634-04-4	Methyl Tert Butyl Ether	4900 [c]		1000	5800	90	1000	5600	70* [b]	4	73-132/17
108-88-3	Toluene	ND		1000	915	92	1000	919	92	0	75-122/17
1330-20-7	Xylene (total)	ND		3000	2740	91	3000	2740	91	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39050-4	C39050-4	Limits
1868-53-7	Dibromofluoromethane	100%	101%	97%	103%	70-130%
2037-26-5	Toluene-D8	99%	99%	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	99%	95%	96%	70-130%

(a) AZ:D2
(b) Outside control limits due to high level in sample relative to spike amount. AZ:M3
(c) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39074-11MS	W51984.D	50	03/30/15	JC	n/a	n/a	VW1892
C39074-11MSD	W51985.D	50	03/30/15	JC	n/a	n/a	VW1892
C39074-11	W51983.D	5	03/30/15	JC	n/a	n/a	VW1892
C39074-11	W51978.D	50	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Compound	C39074-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		4000	3700	93	4000	3740	94	1	38-159/24
71-43-2	Benzene	1.2		1000	927	93	1000	914	91	1	77-122/16
108-86-1	Bromobenzene	ND		1000	1270	127* [a]	1000	1070	107	17	76-126/17
74-97-5	Bromochloromethane	ND		1000	1000	100	1000	970	97	3	77-130/17
75-27-4	Bromodichloromethane	ND		1000	1000	100	1000	991	99	1	75-127/16
75-25-2	Bromoform	ND		1000	1080	108	1000	1070	107	1	69-141/17
104-51-8	n-Butylbenzene	1.3		1000	877	88	1000	879	88	0	72-129/18
135-98-8	sec-Butylbenzene	ND		1000	901	90	1000	904	90	0	74-128/18
98-06-6	tert-Butylbenzene	ND		1000	970	97	1000	950	95	2	73-127/18
108-90-7	Chlorobenzene	ND		1000	955	96	1000	962	96	1	77-122/16
75-00-3	Chloroethane	ND		1000	732	73	1000	747	75	2	69-133/18
67-66-3	Chloroform	1.9		1000	1000	100	1000	977	98	2	74-126/17
95-49-8	o-Chlorotoluene	ND		1000	925	93	1000	927	93	0	72-127/20
106-43-4	p-Chlorotoluene	ND		1000	1030	103	1000	1010	101	2	68-127/18
75-15-0	Carbon disulfide	ND		1000	905	91	1000	883	88	2	56-137/19
56-23-5	Carbon tetrachloride	ND		1000	1020	102	1000	984	98	4	71-133/19
75-34-3	1,1-Dichloroethane	ND		1000	889	89	1000	866	87	3	71-125/17
75-35-4	1,1-Dichloroethylene	ND		1000	807	81	1000	776	78	4	66-125/20
563-58-6	1,1-Dichloropropene	ND		1000	895	90	1000	871	87	3	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		1000	1010	101	1000	967	97	4	65-131/20
106-93-4	1,2-Dibromoethane	ND		1000	1030	103	1000	1020	102	1	75-135/17
107-06-2	1,2-Dichloroethane	ND		1000	1020	102	1000	1020	102	0	71-131/17
78-87-5	1,2-Dichloropropane	ND		1000	904	90	1000	892	89	1	78-124/16
142-28-9	1,3-Dichloropropane	ND		1000	1010	101	1000	1010	101	0	78-123/16
594-20-7	2,2-Dichloropropane	ND		1000	966	97	1000	924	92	4	70-131/19
124-48-1	Dibromochloromethane	ND		1000	1070	107	1000	1050	105	2	76-132/16
75-71-8	Dichlorodifluoromethane	ND		1000	728	73	1000	728	73	0	32-168/28
156-59-2	cis-1,2-Dichloroethylene	3.9		1000	921	92	1000	907	90	2	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		1000	990	99	1000	968	97	2	72-130/16
541-73-1	m-Dichlorobenzene	ND		1000	957	96	1000	948	95	1	75-124/16
95-50-1	o-Dichlorobenzene	ND		1000	965	97	1000	952	95	1	76-124/16
106-46-7	p-Dichlorobenzene	ND		1000	967	97	1000	955	96	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	ND		1000	867	87	1000	849	85	2	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		1000	975	98	1000	967	97	1	71-126/16
100-41-4	Ethylbenzene	1.3		1000	969	97	1000	961	96	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		1000	1030	103	1000	1010	101	2	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39074-11MS	W51984.D	50	03/30/15	JC	n/a	n/a	VW1892
C39074-11MSD	W51985.D	50	03/30/15	JC	n/a	n/a	VW1892
C39074-11	W51983.D	5	03/30/15	JC	n/a	n/a	VW1892
C39074-11	W51978.D	50	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

6.4.2

6

CAS No.	Compound	C39074-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		4000	4070	102	4000	4130	103	1	67-150/22
87-68-3	Hexachlorobutadiene	ND		1000	926	93	1000	949	95	2	69-135/20
98-82-8	Isopropylbenzene	ND		1000	941	94	1000	954	95	1	61-125/17
99-87-6	p-Isopropyltoluene	ND		1000	940	94	1000	944	94	0	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		4000	4080	102	4000	4070	102	0	71-142/21
74-83-9	Methyl bromide	ND		1000	841	84	1000	843	84	0	68-132/18
74-87-3	Methyl chloride	ND		1000	751	75	1000	751	75	0	39-150/28
74-95-3	Methylene bromide	ND		1000	1030	103	1000	1010	101	2	77-127/16
75-09-2	Methylene chloride	ND		1000	853	85	1000	838	84	2	67-128/18
78-93-3	Methyl ethyl ketone	ND		4000	4100	103	4000	4030	101	2	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		1000	1040	104	1000	1020	102	2	73-132/17
91-20-3	Naphthalene	10.6		1000	907	90	1000	904	89	0	70-136/20
103-65-1	n-Propylbenzene	ND		1000	920	92	1000	908	91	1	71-127/17
100-42-5	Styrene	ND		1000	1000	100	1000	1000	100	0	72-134/16
75-65-0	Tert-Butyl Alcohol	ND		5000	3950	79	5000	5070	101	25	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		1000	1030	103	1000	1060	106	3	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		1000	989	99	1000	966	97	2	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		1000	971	97	1000	945	95	3	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		1000	960	96	1000	964	96	0	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		1000	895	90	1000	922	92	3	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		1000	893	89	1000	874	87	2	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		1000	918	92	1000	927	93	1	68-129/17
95-63-6	1,2,4-Trimethylbenzene	3.4		1000	964	96	1000	961	96	0	74-129/17
108-67-8	1,3,5-Trimethylbenzene	1.0		1000	1000	100	1000	999	100	0	77-129/17
127-18-4	Tetrachloroethylene	40.6		1000	942	90	1000	954	91	1	69-127/20
108-88-3	Toluene	3.4		1000	954	95	1000	961	96	1	75-122/17
79-01-6	Trichloroethylene	1990 [c]		1000	2210	22* [b]	1000	2380	39* [b]	7	78-123/17
75-69-4	Trichlorofluoromethane	ND		1000	948	95	1000	957	96	1	65-136/23
75-01-4	Vinyl chloride	ND		1000	764	76	1000	751	75	2	57-146/22
1330-20-7	Xylene (total)	7.4		3000	2860	95	3000	2860	95	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39074-11	C39074-11	Limits
1868-53-7	Dibromofluoromethane	100%	100%	97%	100%	70-130%
2037-26-5	Toluene-D8	97%	98%	100%	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39074-11MS	W51984.D	50	03/30/15	JC	n/a	n/a	VW1892
C39074-11MSD	W51985.D	50	03/30/15	JC	n/a	n/a	VW1892
C39074-11	W51983.D	5	03/30/15	JC	n/a	n/a	VW1892
C39074-11	W51978.D	50	03/30/15	JC	n/a	n/a	VW1892

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-8, C39050-9, C39050-11, C39050-12, C39050-15

CAS No.	Surrogate Recoveries	MS	MSD	C39074-11	C39074-11	Limits
460-00-4	4-Bromofluorobenzene	97%	97%	99%	99%	70-130%

(a) Outside laboratory control limits. AZ:M1
(b) Outside laboratory control limits. AZ:M2
(c) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39074-1MS	V23826.D	10	03/30/15	EA	n/a	n/a	VV949
C39074-1MSD	V23827.D	10	03/30/15	EA	n/a	n/a	VV949
C39074-1	V23817.D	10	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Compound	C39074-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		800	959	120	800	994	124	4	38-159/24
71-43-2	Benzene	ND		200	189	95	200	191	96	1	77-122/16
108-86-1	Bromobenzene	ND		200	196	98	200	195	98	1	76-126/17
74-97-5	Bromochloromethane	ND		200	204	102	200	213	107	4	77-130/17
75-27-4	Bromodichloromethane	ND		200	193	97	200	199	100	3	75-127/16
75-25-2	Bromoform	ND		200	207	104	200	208	104	0	69-141/17
104-51-8	n-Butylbenzene	ND		200	174	87	200	176	88	1	72-129/18
135-98-8	sec-Butylbenzene	ND		200	179	90	200	180	90	1	74-128/18
98-06-6	tert-Butylbenzene	ND		200	187	94	200	189	95	1	73-127/18
108-90-7	Chlorobenzene	ND		200	183	92	200	191	96	4	77-122/16
75-00-3	Chloroethane	ND		200	171	86	200	169	85	1	69-133/18
67-66-3	Chloroform	ND		200	193	97	200	201	101	4	74-126/17
95-49-8	o-Chlorotoluene	ND		200	183	92	200	185	93	1	72-127/20
106-43-4	p-Chlorotoluene	ND		200	176	88	200	179	90	2	68-127/18
75-15-0	Carbon disulfide	ND		200	196	98	200	187	94	5	56-137/19
56-23-5	Carbon tetrachloride	ND		200	196	98	200	195	98	1	71-133/19
75-34-3	1,1-Dichloroethane	ND		200	184	92	200	188	94	2	71-125/17
75-35-4	1,1-Dichloroethylene	ND		200	184	92	200	178	89	3	66-125/20
563-58-6	1,1-Dichloropropene	ND		200	179	90	200	179	90	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		200	195	98	200	200	100	3	65-131/20
106-93-4	1,2-Dibromoethane	ND		200	198	99	200	203	102	2	75-135/17
107-06-2	1,2-Dichloroethane	ND		200	195	98	200	201	101	3	71-131/17
78-87-5	1,2-Dichloropropane	ND		200	189	95	200	196	98	4	78-124/16
142-28-9	1,3-Dichloropropane	ND		200	196	98	200	204	102	4	78-123/16
594-20-7	2,2-Dichloropropane	ND		200	172	86	200	170	85	1	70-131/19
124-48-1	Dibromochloromethane	ND		200	195	98	200	203	102	4	76-132/16
75-71-8	Dichlorodifluoromethane	ND		200	196	98	200	171	86	14	32-168/28
156-59-2	cis-1,2-Dichloroethylene	583		200	746	82	200	748	83	0	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		200	189	95	200	194	97	3	72-130/16
541-73-1	m-Dichlorobenzene	ND		200	178	89	200	183	92	3	75-124/16
95-50-1	o-Dichlorobenzene	ND		200	182	91	200	186	93	2	76-124/16
106-46-7	p-Dichlorobenzene	ND		200	181	91	200	188	94	4	75-124/16
156-60-5	trans-1,2-Dichloroethylene	2.4		200	186	92	200	184	91	1	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		200	178	89	200	183	92	3	71-126/16
100-41-4	Ethylbenzene	ND		200	184	92	200	183	92	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		200	210	105	200	218	109	4	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39074-1MS	V23826.D	10	03/30/15	EA	n/a	n/a	VV949
C39074-1MSD	V23827.D	10	03/30/15	EA	n/a	n/a	VV949
C39074-1	V23817.D	10	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Compound	C39074-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		800	912	114	800	929	116	2	67-150/22
87-68-3	Hexachlorobutadiene	ND		200	178	89	200	182	91	2	69-135/20
98-82-8	Isopropylbenzene	ND		200	183	92	200	184	92	1	61-125/17
99-87-6	p-Isopropyltoluene	ND		200	178	89	200	177	89	1	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		800	905	113	800	928	116	3	71-142/21
74-83-9	Methyl bromide	ND		200	189	95	200	189	95	0	68-132/18
74-87-3	Methyl chloride	ND		200	193	97	200	186	93	4	39-150/28
74-95-3	Methylene bromide	ND		200	203	102	200	210	105	3	77-127/16
75-09-2	Methylene chloride	ND		200	180	90	200	184	92	2	67-128/18
78-93-3	Methyl ethyl ketone	ND		800	947	118	800	966	121	2	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		200	204	102	200	215	108	5	73-132/17
91-20-3	Naphthalene	ND		200	178	89	200	184	92	3	70-136/20
103-65-1	n-Propylbenzene	ND		200	174	87	200	178	89	2	71-127/17
100-42-5	Styrene	ND		200	195	98	200	201	101	3	72-134/16
75-65-0	Tert-Butyl Alcohol	ND		1000	1120	112	1000	1160	116	4	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		200	195	98	200	198	99	2	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		200	191	96	200	193	97	1	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		200	195	98	200	200	100	3	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		200	193	97	200	199	100	3	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		200	186	93	200	194	97	4	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		200	170	85	200	172	86	1	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		200	182	91	200	189	95	4	68-129/17
95-63-6	1,2,4-Trimethylbenzene	ND		200	179	90	200	182	91	2	74-129/17
108-67-8	1,3,5-Trimethylbenzene	ND		200	186	93	200	188	94	1	77-129/17
127-18-4	Tetrachloroethylene	8.0		200	187	90	200	185	89	1	69-127/20
108-88-3	Toluene	ND		200	188	94	200	187	94	1	75-122/17
79-01-6	Trichloroethylene	13.6		200	201	94	200	201	94	0	78-123/17
75-69-4	Trichlorofluoromethane	ND		200	207	104	200	204	102	1	65-136/23
75-01-4	Vinyl chloride	247		200	417	85	200	400	77	4	57-146/22
1330-20-7	Xylene (total)	ND		600	557	93	600	564	94	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39074-1	Limits
1868-53-7	Dibromofluoromethane	98%	100%	99%	70-130%
2037-26-5	Toluene-D8	96%	96%	94%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39074-1MS	V23826.D	10	03/30/15	EA	n/a	n/a	VV949
C39074-1MSD	V23827.D	10	03/30/15	EA	n/a	n/a	VV949
C39074-1	V23817.D	10	03/30/15	EA	n/a	n/a	VV949

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-1, C39050-2, C39050-3

CAS No.	Surrogate Recoveries	MS	MSD	C39074-1	Limits
460-00-4	4-Bromofluorobenzene	100%	98%	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39050-5MS	W51986.D	100	03/30/15	JC	n/a	n/a	VW1891
C39050-5MSD	W51987.D	100	03/30/15	JC	n/a	n/a	VW1891
C39050-5 [a]	W51958.D	10	03/29/15	JC	n/a	n/a	VW1891
C39050-5 [a]	W51953.D	100	03/29/15	JC	n/a	n/a	VW1891

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-5, C39050-7

CAS No.	Compound	C39050-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2000	1860	93	2000	1810	91	3	77-122/16
100-41-4	Ethylbenzene	ND		2000	1950	98	2000	1920	96	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	4350 [b]		2000	6280	97	2000	6210	93	1	73-132/17
108-88-3	Toluene	ND		2000	1930	97	2000	1900	95	2	75-122/17
1330-20-7	Xylene (total)	ND		6000	5740	96	6000	5670	95	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39050-5	C39050-5	Limits
1868-53-7	Dibromofluoromethane	99%	98%	99%	100%	70-130%
2037-26-5	Toluene-D8	97%	98%	97%	98%	70-130%
460-00-4	4-Bromofluorobenzene	96%	97%	99%	99%	70-130%

(a) AZ:D2
(b) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39050
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D69094-21MS	W52038.D	100	03/31/15	JC	n/a	n/a	VW1894
D69094-21MSD	W52039.D	100	03/31/15	JC	n/a	n/a	VW1894
D69094-21	W52021.D	100	03/31/15	JC	n/a	n/a	VW1894

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39050-12

CAS No.	Compound	D69094-21 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	ND		2000	2080	104	2000	2050	103	1	73-132/17

CAS No.	Surrogate Recoveries	MS	MSD	D69094-21	Limits
1868-53-7	Dibromofluoromethane	103%	100%	98%	70-130%
2037-26-5	Toluene-D8	99%	99%	99%	70-130%
460-00-4	4-Bromofluorobenzene	102%	100%	99%	70-130%

* = Outside of Control Limits.

Northern California
ACCUTEST
LABORATORIES

04/09/15

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

Accutest Job Number: C39091

Sampling Date: 03/25/15

Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Richard Byrd

Total number of pages in report: **48**

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Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Elvin Kumar 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary 3
Section 2: Case Narrative/Conformance Summary 4
Section 3: Summary of Hits 5
Section 4: Sample Results 7
4.1: C39091-1: PCM-517A 8
4.2: C39091-2: PCM-517A DUP 9
4.3: C39091-3: ~~PCM-221A~~ WR- 10
4.4: C39091-4: ~~PCM-231A~~ WR- 11
4.5: C39091-5: ~~PCM-235A~~ WR- 12
4.6: C39091-6: ~~PCM-222A~~ WR- 13
4.7: C39091-7: ~~PCM-227A~~ WR- 15
4.8: C39091-8: ~~PCM-233A~~ WR- 17
4.9: C39091-9: PCM-512A 19
4.10: C39091-10: TRIP BLANK 20
Section 5: Misc. Forms 22
5.1: Arizona Qualifiers 23
5.2: Chain of Custody 24
Section 6: GC/MS Volatiles - QC Data Summaries 26
6.1: Method Blank Summary 27
6.2: Blank Spike/Blank Spike Duplicate Summary 34
6.3: Laboratory Control Sample Summary 41
6.4: Matrix Spike/Matrix Spike Duplicate Summary 43

JE 3/16/16

Corrected Well names:
PCM-221A → WR-221A
PCM-231A → WR-231A
PCM-235A → WR-235A
PCM-222A → WR-222A
PCM-227A → WR-227A
PCM-233A → WR-233A
3/16/2016 JE

Sample Summary

City of Tucson Environmental Services

Job No: C39091

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
C39091-1	03/25/15	08:20	03/26/15	AQ	Ground Water	PCM-517A
C39091-2	03/25/15	08:24	03/26/15	AQ	Ground Water	PCM-517A DUP
C39091-3	03/25/15	08:45	03/26/15	AQ	Ground Water	WR- ~~PCM~~-221A
C39091-4	03/25/15	09:10	03/26/15	AQ	Ground Water	WR- ~~PCM~~-231A
C39091-5	03/25/15	09:25	03/26/15	AQ	Ground Water	WR- ~~PCM~~-235A
C39091-6	03/25/15	09:45	03/26/15	AQ	Ground Water	WR- ~~PCM~~-222A
C39091-7	03/25/15	10:00	03/26/15	AQ	Ground Water	WR- ~~PCM~~-227A
C39091-8	03/25/15	10:30	03/26/15	AQ	Ground Water	WR- ~~PCM~~-233A
C39091-9	03/25/15	11:05	03/26/15	AQ	Ground Water	PCM-512A
C39091-10	03/25/15	00:00	03/26/15	AQ	Trip Blank Water	TRIP BLANK

JK 3/16/16

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2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	City of Tucson Environmental Services	**Job No**	C39091
Site:	Price Service Center	**Report Date**	4/9/2015 6:58:16 PM

9 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/25/2015 and were received at Accutest on 03/26/2015 properly preserved, at 4.2 Deg. C and intact. These Samples received an Accutest job number of C39091. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VQ1214

- Sample(s) C39100-7MS, C39100-7MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VQ1215

- Sample(s) C39014-7MS, C39014-7MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery for Toluene is outside control limits due to high level in sample relative to spike amount. The associated blank spike recoveries were acceptable. Additionally, the sample spiked for the MS/MSD was not one of the samples from this SDG/work order; therefore, there are no data quality issues that affect this sample set.

Matrix: AQ **Batch ID:** VU1078

- Sample(s) C39147-8MS, C39147-8MSD were used as the QC samples indicated.

Matrix: AQ **Batch ID:** VW1893

- Sample(s) C39091-2MS, C39091-2MSD were used as the QC samples indicated.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C39091
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/25/15

3

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C39091-1	**PCM-517A**					
Benzene [a]		5950	100		ug/l	SW846 8260B
Toluene		14.2	1.0		ug/l	SW846 8260B
Ethylbenzene [a]		208	100		ug/l	SW846 8260B
Xylene (total)		62.0	2.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		247	100		ug/l	SW846 8260B
C39091-2	**PCM-517A DUP**					
Benzene [a]		4980	100		ug/l	SW846 8260B
Toluene [a]		12.8	10		ug/l	SW846 8260B
Ethylbenzene [a]		230	10		ug/l	SW846 8260B
Xylene (total) [a]		55.7	20		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		247	10		ug/l	SW846 8260B
C39091-3	WR- ~~PCM~~-221A					
No hits reported in this sample.						
JE 3/16/16 **C39091-4**	WR- ~~PCM~~-231A					
No hits reported in this sample.						
C39091-5	WR- ~~PCM~~-235A					
No hits reported in this sample.						
C39091-6	WR- ~~PCM~~-222A					
No hits reported in this sample.						
C39091-7	WR- ~~PCM~~-227A					
Methyl Tert Butyl Ether		38.3	1.0		ug/l	SW846 8260B
C39091-8	WR- ~~PCM~~-233A					
No hits reported in this sample.						
C39091-9	**PCM-512A**					
Benzene [a]		276	20		ug/l	SW846 8260B
Ethylbenzene [a]		1050	200		ug/l	SW846 8260B
Xylene (total) [a]		1430	40		ug/l	SW846 8260B

Summary of Hits

Job Number: C39091
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/25/15

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Methyl Tert Butyl Ether [a]		9980	200		ug/l	SW846 8260B

C39091-10 **TRIP BLANK**

No hits reported in this sample.

(a) AZ:D2

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Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PCM-517A		
Lab Sample ID:	C39091-1	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q28030.D	1	03/29/15	TN	n/a	n/a	VQ1214
Run #2 [a]	U26243.D	100	04/01/15	JC	n/a	n/a	VU1078

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	5950 [b]	100	ug/l	
108-88-3	Toluene	14.2	1.0	ug/l	
100-41-4	Ethylbenzene	208 [b]	100	ug/l	
1330-20-7	Xylene (total)	62.0	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	247 [b]	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	94%	101%	70-130%
2037-26-5	Toluene-D8	99%	101%	70-130%
460-00-4	4-Bromofluorobenzene	102%	90%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-517A DUP		
Lab Sample ID:	C39091-2	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	W52007.D	10	03/31/15	JC	n/a	n/a	VW1893
Run #2 [a]	W51999.D	100	03/31/15	JC	n/a	n/a	VW1893

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	4980 [b]	100	ug/l	
108-88-3	Toluene	12.8	10	ug/l	
100-41-4	Ethylbenzene	230	10	ug/l	
1330-20-7	Xylene (total)	55.7	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	247	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%	101%	70-130%
2037-26-5	Toluene-D8	100%	98%	70-130%
460-00-4	4-Bromofluorobenzene	99%	99%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

4.3 4

Client Sample ID:	~~PCM~~-221A WR-		
Lab Sample ID:	C39091-3	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W52000.D	1	03/31/15	JC	n/a	n/a	VW1893
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

4.4 4

Client Sample ID:	~~PCM~~ WR-231A		
Lab Sample ID:	C39091-4	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W52001.D	1	03/31/15	JC	n/a	n/a	VW1893
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	98%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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3/16/16

Report of Analysis

4.5 4

Client Sample ID:	~~PCM~~ WR-235A		
Lab Sample ID:	C39091-5	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W52002.D	1	03/31/15	JC	n/a	n/a	VW1893
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Report of Analysis

4.6 4

Client Sample ID:	~~PCM~~ WP-222A		
Lab Sample ID:	C39091-6	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q28057.D	1	03/30/15	EA	n/a	n/a	VQ1215
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	~~PCM~~-222A		
Lab Sample ID:	C39091-6	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	PCM-227A		
Lab Sample ID:	C39091-7	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q28058.D	1	03/30/15	EA	n/a	n/a	VQ1215
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	~~PCM~~-227A		
Lab Sample ID:	C39091-7	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	38.3	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	~~PCM~~-233A		
Lab Sample ID:	C39091-8	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q28059.D	1	03/30/15	EA	n/a	n/a	VQ1215
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	~~PCM~~-233A		
Lab Sample ID:	C39091-8	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-512A		
Lab Sample ID:	C39091-9	**Date Sampled:**	03/25/15
Matrix:	AQ - Ground Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q28029.D	20	03/29/15	TN	n/a	n/a	VQ1214
Run #2 [a]	Q28005.D	200	03/28/15	EA	n/a	n/a	VQ1213

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	276	20	ug/l	
108-88-3	Toluene	ND	20	ug/l	
100-41-4	Ethylbenzene	1050 [b]	200	ug/l	
1330-20-7	Xylene (total)	1430	40	ug/l	
1634-04-4	Methyl Tert Butyl Ether	9980 [b]	200	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%	91%	70-130%
2037-26-5	Toluene-D8	103%	100%	70-130%
460-00-4	4-Bromofluorobenzene	105%	95%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39091-10	**Date Sampled:**	03/25/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q28051.D	1	03/30/15	EA	n/a	n/a	VQ1215
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39091-10	**Date Sampled:**	03/25/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	03/26/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	95%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	95%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Northern California
ACCUTEST
LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.

PHOENIX

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 806632106209
Bottle Order Control #
Accutest Quote #
Accutest NC Job #: C C39091

Client / Reporting Information

Company Name: CITY OF TUCSON
Address: P.O. BOX 27210
City: TUCSON State: AZ. Zip: 85726
Project Contact: LORI EHMAN
Phone #: 520 791 3175
Samplers's Name: H.J. Vimislik H.J. VIMISLIK

Project Information

Project Name: PRICE SERVICE CENTER
Street:
City: State:
Project #: PO 1064
EMAIL:
Client Purchase Order #:

Requested Analysis: BTEX/MTBE 8260

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-OI; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	Preserved Bottles	BTEX/MTBE 8260	LAB USE ONLY
1	PCM-517A	3-25-15	0820	HJV		3		X	3 VIALS
2	PCM-517A DUP	3-25-15	0824	HJV		3		X	
3	WR-221A	3-25-15	0845	HJV		3		X	
4	WR-231A	3-25-15	0910	HJV		3		X	
5	WR-235A	3-25-15	0925	HJV		3		X	
6	WR-222A	3-25-15	0945	HJV		3		X	
7	WR-227A	3-25-15	1000	HJV		3		X	
8	WR-233A	3-25-15	1030	HJV		3		X	
9	PCM-512A	3-25-15	1105	HJV		3		X	
10	TRIP BLANK					3		X	

Turnaround Time (Business days): 10 Day, 5 Day, 3 Day, 2 Day, 1 Day, Same Day — Approved By / Date:

Emergency T/A data available VIA Lablink

Data Deliverable Information: Commercial "A" - Results only; Commercial "B" - Results with QC summaries; Commerical "B+" - Results, QC, and chromatograms; FULT1 - Level 4 data package; EDF for Geotracker; EDD Format; Provide EDF Global ID; Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1	H.J. Vimislik	3/25/15 1300	[signature]	2 [signature]	3/25/15 1700	2 Fedex
3	FEDEX	3/26/15 0945	[signature]	4		4
5			5			

Custody Seal Y

Appropriate Bottle / Pres. Y/N Headspace Y/N On Ice Y/N Cooler Temp. 4.1/4.2
Labels match Coc? Y / N Separate Receiving Check List used: Y / N

5.2 5

C39091: Chain of Custody
Page 1 of 2

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C39091 **Client:** CITY OF TUCSON **Project:** PRICE SERVICE CENTER

Date / Time Received: 3/26/2015 9:45:00 AM **Delivery Method:** FedEx **Airbill #'s:** 806632106209

Cooler Temps (Initial/Adjusted): #1: (4.2/4.2);

Cooler Security	Y or N		Y or N
1. Custody Seals Present:	☑ ☐	3. COC Present:	☑ ☐
2. Custody Seals Intact:	☑ ☐	4. Smpl Dates/Time OK	☑ ☐

Cooler Temperature	Y or N
1. Temp criteria achieved:	☑ ☐
2. Cooler temp verification:	IR1;
3. Cooler media:	Ice (Bag)
4. No. Coolers:	1

Quality Control Preservation	Y or N	N/A
1. Trip Blank present / cooler:	☑ ☐	☐
2. Trip Blank listed on COC:	☑ ☐	☐
3. Samples preserved properly:	☑ ☐	
4. VOCs headspace free:	☑ ☐	☐

Sample Integrity - Documentation	Y or N
1. Sample labels present on bottles:	☑ ☐
2. Container labeling complete:	☑ ☐
3. Sample container label / COC agree:	☑ ☐

Sample Integrity - Condition	Y or N
1. Sample recvd within HT:	☑ ☐
2. All containers accounted for:	☑ ☐
3. Condition of sample:	Intact

Sample Integrity - Instructions	Y or N	N/A
1. Analysis requested is clear:	☑ ☐	
2. Bottles received for unspecified tests	☐ ☑	
3. Sufficient volume recvd for analysis:	☑ ☐	
4. Compositing instructions clear:	☐ ☐	☑
5. Filtering instructions clear:	☐ ☐	☑

Comments

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

5.2 5

C39091: Chain of Custody
Page 2 of 2

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QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1213-MB	Q27994.D	1	03/28/15	EA	n/a	n/a	VQ1213

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-9

CAS No.	Compound	Result	RL	Units	Q
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	90%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

Method Blank Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1214-MB	Q28015.D	1	03/29/15	TN	n/a	n/a	VQ1214

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-1, C39091-9

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	70-130%
2037-26-5	Toluene-D8	100%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

Method Blank Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1215-MB	Q28048.D	1	03/30/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1215-MB	Q28048.D	1	03/30/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	91%	70-130%
2037-26-5	Toluene-D8	102%	70-130%

Method Blank Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1215-MB	Q28048.D	1	03/30/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	96%	70-130%

Method Blank Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1893-MB	W51994.D	1	03/31/15	JC	n/a	n/a	VW1893

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-2, C39091-3, C39091-4, C39091-5

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

Method Blank Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1078-MB	U26226.D	1	04/01/15	JC	n/a	n/a	VU1078

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-1

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	88%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1213-BS	Q27991.D	1	03/27/15	EA	n/a	n/a	VQ1213
VQ1213-BSD	Q27992.D	1	03/27/15	EA	n/a	n/a	VQ1213

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
100-41-4	Ethylbenzene	20	19.0	95	19.1	96	1	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	16.2	81	16.3	82	1	73-132/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	90%	91%	70-130%
2037-26-5	Toluene-D8	97%	98%	70-130%
460-00-4	4-Bromofluorobenzene	94%	93%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1214-BS	Q28012.D	1	03/29/15	TN	n/a	n/a	VQ1214
VQ1214-BSD	Q28013.D	1	03/29/15	TN	n/a	n/a	VQ1214

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-1, C39091-9

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.3	97	19.2	96	1	77-122/25
108-88-3	Toluene	20	20.1	101	19.5	98	3	75-122/17
1330-20-7	Xylene (total)	60	61.6	103	59.6	99	3	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	94%	92%	70-130%
2037-26-5	Toluene-D8	99%	96%	70-130%
460-00-4	4-Bromofluorobenzene	97%	94%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1215-BS	Q28045.D	1	03/30/15	EA	n/a	n/a	VQ1215
VQ1215-BSD	Q28046.D	1	03/30/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	65.5	82	69.5	87	6	38-159/24
71-43-2	Benzene	20	18.7	94	19.2	96	3	77-122/25
108-86-1	Bromobenzene	20	20.4	102	21.0	105	3	76-126/17
74-97-5	Bromochloromethane	20	18.9	95	19.7	99	4	77-130/17
75-27-4	Bromodichloromethane	20	17.9	90	18.3	92	2	75-127/16
75-25-2	Bromoform	20	18.1	91	18.6	93	3	69-141/17
104-51-8	n-Butylbenzene	20	19.0	95	19.3	97	2	72-129/18
135-98-8	sec-Butylbenzene	20	19.2	96	19.6	98	2	74-128/18
98-06-6	tert-Butylbenzene	20	18.8	94	19.2	96	2	73-127/18
108-90-7	Chlorobenzene	20	19.5	98	19.4	97	1	77-122/16
75-00-3	Chloroethane	20	15.3	77	15.3	77	0	69-133/18
67-66-3	Chloroform	20	17.0	85	17.5	88	3	74-126/17
95-49-8	o-Chlorotoluene	20	19.0	95	19.2	96	1	72-127/20
106-43-4	p-Chlorotoluene	20	18.1	91	18.8	94	4	68-127/18
75-15-0	Carbon disulfide	20	19.7	99	19.8	99	1	56-137/19
56-23-5	Carbon tetrachloride	20	19.0	95	19.5	98	3	71-133/19
75-34-3	1,1-Dichloroethane	20	16.0	80	16.4	82	2	71-125/17
75-35-4	1,1-Dichloroethylene	20	17.3	87	17.4	87	1	66-125/20
563-58-6	1,1-Dichloropropene	20	17.1	86	17.4	87	2	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	16.7	84	18.2	91	9	65-131/20
106-93-4	1,2-Dibromoethane	20	19.6	98	19.8	99	1	75-135/17
107-06-2	1,2-Dichloroethane	20	16.5	83	17.1	86	4	71-131/17
78-87-5	1,2-Dichloropropane	20	17.6	88	18.2	91	3	78-124/16
142-28-9	1,3-Dichloropropane	20	18.9	95	19.1	96	1	78-123/16
594-20-7	2,2-Dichloropropane	20	16.4	82	15.8	79	4	70-131/19
124-48-1	Dibromochloromethane	20	20.3	102	20.5	103	1	76-132/16
75-71-8	Dichlorodifluoromethane	20	16.7	84	14.8	74	12	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	17.8	89	18.1	91	2	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	18.3	92	18.8	94	3	72-130/16
541-73-1	m-Dichlorobenzene	20	19.8	99	20.4	102	3	75-124/16
95-50-1	o-Dichlorobenzene	20	19.6	98	20.5	103	4	76-124/16
106-46-7	p-Dichlorobenzene	20	19.7	99	20.3	102	3	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	17.4	87	17.8	89	2	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	18.1	91	18.1	91	0	71-126/16
100-41-4	Ethylbenzene	20	19.4	97	19.3	97	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	17.0	85	17.6	88	3	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1215-BS	Q28045.D	1	03/30/15	EA	n/a	n/a	VQ1215
VQ1215-BSD	Q28046.D	1	03/30/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	74.6	93	77.0	96	3	67-150/22
87-68-3	Hexachlorobutadiene	20	20.7	104	21.4	107	3	69-135/20
98-82-8	Isopropylbenzene	20	19.5	98	19.3	97	1	61-125/17
99-87-6	p-Isopropyltoluene	20	19.4	97	19.8	99	2	68-127/18
108-10-1	4-Methyl-2-pentanone	80	81.5	102	86.5	108	6	71-142/21
74-83-9	Methyl bromide	20	18.1	91	18.0	90	1	68-132/18
74-87-3	Methyl chloride	20	15.9	80	14.7	74	8	39-150/28
74-95-3	Methylene bromide	20	18.8	94	19.7	99	5	77-127/16
75-09-2	Methylene chloride	20	16.6	83	17.2	86	4	67-128/18
78-93-3	Methyl ethyl ketone	80	73.9	92	78.2	98	6	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	16.6	83	17.3	87	4	73-132/17
91-20-3	Naphthalene	20	17.8	89	19.9	100	11	70-136/20
103-65-1	n-Propylbenzene	20	18.5	93	18.7	94	1	71-127/17
100-42-5	Styrene	20	20.5	103	20.4	102	0	72-134/16
75-65-0	Tert-Butyl Alcohol	100	74.0	74	81.9	82	10	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	20.6	103	20.6	103	0	77-130/16
71-55-6	1,1,1-Trichloroethane	20	17.0	85	17.5	88	3	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	18.4	92	19.4	97	5	77-129/17
79-00-5	1,1,2-Trichloroethane	20	18.8	94	19.2	96	2	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	20.3	102	22.3	112	9	70-133/18
96-18-4	1,2,3-Trichloropropane	20	17.4	87	18.0	90	3	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	20.5	103	21.9	110	7	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	18.7	94	19.2	96	3	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	19.5	98	19.8	99	2	77-129/17
127-18-4	Tetrachloroethylene	20	20.4	102	20.5	103	0	69-127/20
108-88-3	Toluene	20	19.4	97	19.5	98	1	75-122/17
79-01-6	Trichloroethylene	20	18.4	92	18.9	95	3	78-123/17
75-69-4	Trichlorofluoromethane	20	17.2	86	16.8	84	2	65-136/23
75-01-4	Vinyl chloride	20	16.4	82	15.5	78	6	57-146/22
1330-20-7	Xylene (total)	60	58.4	97	57.8	96	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	92%	92%	70-130%
2037-26-5	Toluene-D8	99%	96%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1215-BS	Q28045.D	1	03/30/15	EA	n/a	n/a	VQ1215
VQ1215-BSD	Q28046.D	1	03/30/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	96%	94%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1893-BS	W51991.D	1	03/30/15	JC	n/a	n/a	VW1893
VW1893-BSD	W51992.D	1	03/31/15	JC	n/a	n/a	VW1893

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-2, C39091-3, C39091-4, C39091-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.5	93	17.8	89	4	77-122/25
100-41-4	Ethylbenzene	20	19.5	98	19.5	98	0	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	20.5	103	20.3	102	1	73-132/17
108-88-3	Toluene	20	19.2	96	19.4	97	1	75-122/17
1330-20-7	Xylene (total)	60	57.9	97	57.9	97	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	100%	70-130%
2037-26-5	Toluene-D8	98%	99%	70-130%
460-00-4	4-Bromofluorobenzene	97%	100%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1078-BS	U26223.D	1	04/01/15	JC	n/a	n/a	VU1078
VU1078-BSD	U26224.D	1	04/01/15	JC	n/a	n/a	VU1078

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	17.4	87	16.9	85	3	77-122/25
100-41-4	Ethylbenzene	20	17.8	89	16.9	85	5	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	18.2	91	18.3	92	1	73-132/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	101%	102%	70-130%
2037-26-5	Toluene-D8	97%	98%	70-130%
460-00-4	4-Bromofluorobenzene	98%	97%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1893-LCS	W51993.D	1	03/31/15	JC	n/a	n/a	VW1893

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-2, C39091-3, C39091-4, C39091-5

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1078-LCS	U26225.D	1	04/01/15	JC	n/a	n/a	VU1078

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-1

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	91%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39100-7MS	Q28031.D	20	03/29/15	TN	n/a	n/a	VQ1214
C39100-7MSD	Q28032.D	20	03/29/15	TN	n/a	n/a	VQ1214
C39100-7	Q28017.D	20	03/29/15	TN	n/a	n/a	VQ1214

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-1, C39091-9

CAS No.	Compound	C39100-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		400	393	98	400	386	97	2	77-122/16
108-88-3	Toluene	ND		400	382	96	400	390	98	2	75-122/17
1330-20-7	Xylene (total)	ND		1200	1150	96	1200	1160	97	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39100-7	Limits
1868-53-7	Dibromofluoromethane	93%	92%	94%	70-130%
2037-26-5	Toluene-D8	97%	97%	101%	70-130%
460-00-4	4-Bromofluorobenzene	94%	94%	96%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39014-7MS	Q28063.D	500	03/31/15	EA	n/a	n/a	VQ1215
C39014-7MSD	Q28064.D	500	03/31/15	EA	n/a	n/a	VQ1215
C39014-7	Q28062.D	500	03/31/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Compound	C39014-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		40000	41300	103	40000	42100	105	2	38-159/24
71-43-2	Benzene	11300		10000	21800	105	10000	21000	97	4	77-122/16
108-86-1	Bromobenzene	ND		10000	9990	100	10000	10200	102	2	76-126/17
74-97-5	Bromochloromethane	ND		10000	9910	99	10000	9980	100	1	77-130/17
75-27-4	Bromodichloromethane	ND		10000	10400	104	10000	10300	103	1	75-127/16
75-25-2	Bromoform	ND		10000	8250	83	10000	8670	87	5	69-141/17
104-51-8	n-Butylbenzene	ND		10000	10400	104	10000	10200	102	2	72-129/18
135-98-8	sec-Butylbenzene	ND		10000	10200	102	10000	10100	101	1	74-128/18
98-06-6	tert-Butylbenzene	ND		10000	12300	123	10000	12400	124	1	73-127/18
108-90-7	Chlorobenzene	ND		10000	9870	99	10000	9880	99	0	77-122/16
75-00-3	Chloroethane	ND		10000	9130	91	10000	8560	86	6	69-133/18
67-66-3	Chloroform	ND		10000	10500	105	10000	10200	102	3	74-126/17
95-49-8	o-Chlorotoluene	ND		10000	9920	99	10000	10400	104	5	72-127/20
106-43-4	p-Chlorotoluene	ND		10000	10000	100	10000	9940	99	1	68-127/18
75-15-0	Carbon disulfide	ND		10000	11500	115	10000	10500	105	9	56-137/19
56-23-5	Carbon tetrachloride	ND		10000	11200	112	10000	10700	107	5	71-133/19
75-34-3	1,1-Dichloroethane	ND		10000	10000	100	10000	9600	96	4	71-125/17
75-35-4	1,1-Dichloroethylene	ND		10000	9710	97	10000	9040	90	7	66-125/20
563-58-6	1,1-Dichloropropene	ND		10000	9930	99	10000	9490	95	5	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		10000	9580	96	10000	9950	100	4	65-131/20
106-93-4	1,2-Dibromoethane	ND		10000	9950	100	10000	10100	101	1	75-135/17
107-06-2	1,2-Dichloroethane	ND		10000	10700	107	10000	10300	103	4	71-131/17
78-87-5	1,2-Dichloropropane	ND		10000	9930	99	10000	9960	100	0	78-124/16
142-28-9	1,3-Dichloropropane	ND		10000	10400	104	10000	10300	103	1	78-123/16
594-20-7	2,2-Dichloropropane	ND		10000	8980	90	10000	8280	83	8	70-131/19
124-48-1	Dibromochloromethane	ND		10000	10200	102	10000	10300	103	1	76-132/16
75-71-8	Dichlorodifluoromethane	ND		10000	12000	120	10000	9260	93	26	32-168/28
156-59-2	cis-1,2-Dichloroethylene	ND		10000	9710	97	10000	9720	97	0	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		10000	9790	98	10000	9850	99	1	72-130/16
541-73-1	m-Dichlorobenzene	ND		10000	9930	99	10000	10100	101	2	75-124/16
95-50-1	o-Dichlorobenzene	ND		10000	10100	101	10000	10200	102	1	76-124/16
106-46-7	p-Dichlorobenzene	ND		10000	9830	98	10000	10100	101	3	75-124/16
156-60-5	trans-1,2-Dichloroethylene	ND		10000	9560	96	10000	9310	93	3	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		10000	9680	97	10000	9530	95	2	71-126/16
100-41-4	Ethylbenzene	4100		10000	14700	106	10000	14100	100	4	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		10000	10600	106	10000	10200	102	4	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39014-7MS	Q28063.D	500	03/31/15	EA	n/a	n/a	VQ1215
C39014-7MSD	Q28064.D	500	03/31/15	EA	n/a	n/a	VQ1215
C39014-7	Q28062.D	500	03/31/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Compound	C39014-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		40000	44800	112	40000	44600	112	0	67-150/22
87-68-3	Hexachlorobutadiene	ND		10000	10200	102	10000	10500	105	3	69-135/20
98-82-8	Isopropylbenzene	128	J	10000	10400	103	10000	10100	100	3	61-125/17
99-87-6	p-Isopropyltoluene	ND		10000	10200	102	10000	10100	101	1	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		40000	40300	101	40000	42800	107	6	71-142/21
74-83-9	Methyl bromide	ND		10000	9750	98	10000	9400	94	4	68-132/18
74-87-3	Methyl chloride	ND		10000	10500	105	10000	9880	99	6	39-150/28
74-95-3	Methylene bromide	ND		10000	10400	104	10000	10400	104	0	77-127/16
75-09-2	Methylene chloride	ND		10000	9370	94	10000	9150	92	2	67-128/18
78-93-3	Methyl ethyl ketone	ND		40000	42800	107	40000	44400	111	4	56-155/23
1634-04-4	Methyl Tert Butyl Ether	131	J	10000	10100	100	10000	9880	97	2	73-132/17
91-20-3	Naphthalene	720	J	10000	9960	92	10000	10800	101	8	70-136/20
103-65-1	n-Propylbenzene	335	J	10000	10300	100	10000	10200	99	1	71-127/17
100-42-5	Styrene	ND		10000	10700	107	10000	10600	106	1	72-134/16
75-65-0	Tert-Butyl Alcohol	ND		50000	52300	105	50000	54200	108	4	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		10000	10500	105	10000	10500	105	0	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		10000	10700	107	10000	10200	102	5	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		10000	9630	96	10000	9970	100	3	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		10000	9900	99	10000	9900	99	0	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		10000	9900	99	10000	10700	107	8	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		10000	8700	87	10000	8650	87	1	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		10000	9950	100	10000	10600	106	6	68-129/17
95-63-6	1,2,4-Trimethylbenzene	3590		10000	14100	105	10000	13700	101	3	74-129/17
108-67-8	1,3,5-Trimethylbenzene	698	J	10000	11600	109	10000	11500	108	1	77-129/17
127-18-4	Tetrachloroethylene	ND		10000	9600	96	10000	9510	95	1	69-127/20
108-88-3	Toluene	33300		10000	43100	98	10000	40600	73* a	6	75-122/17
79-01-6	Trichloroethylene	103	J	10000	10000	99	10000	9940	98	1	78-123/17
75-69-4	Trichlorofluoromethane	ND		10000	10900	109	10000	9900	99	10	65-136/23
75-01-4	Vinyl chloride	ND		10000	9930	99	10000	9040	90	9	57-146/22
1330-20-7	Xylene (total)	24300		30000	55200	103	30000	53200	96	4	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39014-7	Limits
1868-53-7	Dibromofluoromethane	106%	102%	105%	70-130%
2037-26-5	Toluene-D8	102%	101%	106%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39014-7MS	Q28063.D	500	03/31/15	EA	n/a	n/a	VQ1215
C39014-7MSD	Q28064.D	500	03/31/15	EA	n/a	n/a	VQ1215
C39014-7	Q28062.D	500	03/31/15	EA	n/a	n/a	VQ1215

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-6, C39091-7, C39091-8, C39091-10

CAS No.	Surrogate Recoveries	MS	MSD	C39014-7	Limits
460-00-4	4-Bromofluorobenzene	103%	99%	102%	70-130%

(a) Outside control limits due to high level in sample relative to spike amount. AZ:M3

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39091-2MS	W52011.D	100	03/31/15	JC	n/a	n/a	VW1893
C39091-2MSD	W52012.D	100	03/31/15	JC	n/a	n/a	VW1893
C39091-2 [a]	W52007.D	10	03/31/15	JC	n/a	n/a	VW1893
C39091-2 [a]	W51999.D	100	03/31/15	JC	n/a	n/a	VW1893

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-2, C39091-3, C39091-4, C39091-5

CAS No.	Compound	C39091-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	4980 [b]		2000	6960	99	2000	6700	86	4	77-122/16
100-41-4	Ethylbenzene	230		2000	2170	97	2000	2120	95	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	247		2000	2430	109	2000	2340	105	4	73-132/17
108-88-3	Toluene	12.8		2000	1910	95	2000	1890	94	1	75-122/17
1330-20-7	Xylene (total)	55.7		6000	5760	95	6000	5730	95	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39091-2	C39091-2	Limits
1868-53-7	Dibromofluoromethane	105%	104%	102%	101%	70-130%
2037-26-5	Toluene-D8	97%	99%	100%	98%	70-130%
460-00-4	4-Bromofluorobenzene	102%	101%	99%	99%	70-130%

(a) AZ:D2
(b) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39091
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39147-8MS	U26246.D	50	04/01/15	JC	n/a	n/a	VU1078
C39147-8MSD	U26281.D	50	04/02/15	JC	n/a	n/a	VU1078
C39147-8 [a]	U26235.D	50	04/01/15	JC	n/a	n/a	VU1078

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39091-1

CAS No.	Compound	C39147-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	559		1000	1390	83	1000	1350	79	3	77-122/16
100-41-4	Ethylbenzene	491		1000	1320	83	1000	1340	85	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	ND		1000	861	86	1000	826	83	4	73-132/17

CAS No.	Surrogate Recoveries	MS	MSD	C39147-8	Limits
1868-53-7	Dibromofluoromethane	102%	98%	98%	70-130%
2037-26-5	Toluene-D8	98%	100%	101%	70-130%
460-00-4	4-Bromofluorobenzene	97%	96%	93%	70-130%

(a) AZ:D2

* = Outside of Control Limits.

Northern California
ACCUTEST
LABORATORIES

04/15/15

Technical Report for

City of Tucson Environmental Services

Price Service Center

P01064

Accutest Job Number: C39181

Sampling Date: 03/31/15

Report to:

City of Tucson - Env.Services
4400 S. Park Ave., Bldg 1 P.O. Box 27210
Tucson, AZ 85726
Lori.Ehman@tucsonaz.gov; richard.byrd@tucsonaz.gov;
justin.patton@cardno.com; Daniel.Stanton@tucsonaz.gov
ATTN: Richard Byrd

Total number of pages in report: **38**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Elvin Kumar 408-588-0200

Certifications: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925)
DoD ELAP (L-A-B L2242)

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Sections: 1 2 3 4 5 6

Table of Contents

-1-

Section 1: Sample Summary **3**
Section 2: Case Narrative/Conformance Summary **4**
Section 3: Summary of Hits **5**
Section 4: Sample Results **6**
4.1: C39181-1: PCM-510A 7
4.2: C39181-2: PCM-510B 8
4.3: C39181-3: R-037A 9
4.4: C39181-4: TRIP BLANK 10
Section 5: Misc. Forms **12**
5.1: Arizona Qualifiers 13
5.2: Chain of Custody 14
Section 6: GC/MS Volatiles - QC Data Summaries **17**
6.1: Method Blank Summary 18
6.2: Blank Spike/Blank Spike Duplicate Summary 24
6.3: Laboratory Control Sample Summary 30
6.4: Matrix Spike/Matrix Spike Duplicate Summary 34

Sample Summary

City of Tucson Environmental Services

Job No: C39181

Price Service Center
Project No: P01064

Sample Number	Collected Date	Time By	Received	Matrix Code	Matrix Type	Client Sample ID
C39181-1	03/31/15	06:55 HV	04/01/15	AQ	Ground Water	PCM-510A
C39181-2	03/31/15	07:05 HV	04/01/15	AQ	Ground Water	PCM-510B
C39181-3	03/31/15	07:25 HV	04/01/15	AQ	Ground Water	R-037A
C39181-4	03/31/15	00:00 HV	04/01/15	AQ	Trip Blank Water	TRIP BLANK

ACCUTEST LABORATORIES

2

SAMPLE DELIVERY GROUP CASE NARRATIVE

Client:	City of Tucson Environmental Services	**Job No**	C39181
Site:	Price Service Center	**Report Date**	4/15/2015 8:41:02 PM

3 Sample(s), 1 Trip Blank(s) and 0 Field Blank(s) were collected on 03/31/2015 and were received at Accutest on 04/01/2015 properly preserved, at 2.7 Deg. C and intact. These Samples received an Accutest job number of C39181. A listing of the Laboratory Sample ID, Client Sample ID and dates of collection are presented in the Results Summary Section of this report.

Except as noted below, all method specified calibrations and quality control performance criteria were met for this job. For more information, please refer to QC summary pages.

Volatiles by GCMS By Method SW846 8260B

Matrix: AQ **Batch ID:** VQ1221

- Sample(s) C39181-2MS, C39181-2MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) and RPD for MSD for Methyl Tert Butyl Ether are outside control limits due to high level in sample relative to spike amount. The associated blank spike recoveries and RPD were acceptable.

Matrix: AQ **Batch ID:** VR1273

- Sample(s) C39197-14MS, C39197-14MSD were used as the QC samples indicated.
- Matrix Spike/Matrix Spike Duplicate Recovery(s) for Bromoform are outside control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.

Matrix: AQ **Batch ID:** VU1083

- Sample(s) C39181-3MS, C39181-3MSD were used as the QC samples indicated.
- Matrix Spike Duplicate Recovery for Methyl Tert Butyl Ether is outside control limits. Probable cause due to matrix interference. The associated blank spike recoveries were acceptable.

Accutest Laboratories Northern California (ALNCA) certifies that this report meets the project requirements for analytical data produced for the samples as received at ALNCA and as stated on the COC. ALNCA certifies that the data meets the Data QualityObjectives for precision, accuracy and completeness as specified in the ALNCA Quality Manual except as noted above. This report is to be used in its entirety. ALNCA is not responsible for any assumptions of data quality if partial data packages are used

Summary of Hits

Job Number: C39181
Account: City of Tucson Environmental Services
Project: Price Service Center
Collected: 03/31/15

3

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C39181-1	**PCM-510A**					
No hits reported in this sample.						
C39181-2	**PCM-510B**					
Benzene [a]		28.8	25		ug/l	SW846 8260B
Ethylbenzene [a]		135	25		ug/l	SW846 8260B
Xylene (total) [a]		374	50		ug/l	SW846 8260B
Methyl Tert Butyl Ether [a]		3940	100		ug/l	SW846 8260B
C39181-3	**R-037A**					
Ethylbenzene [a]		133	50		ug/l	SW846 8260B
Xylene (total) [a]		176	100		ug/l	SW846 8260B
Methyl Tert Butyl Ether [b]		19400	500		ug/l	SW846 8260B
C39181-4	**TRIP BLANK**					
No hits reported in this sample.						

(a) AZ:D2
(b) AZ:D2 AZ:M2

Northern California
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LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	PCM-510A		
Lab Sample ID:	C39181-1	**Date Sampled:**	03/31/15
Matrix:	AQ - Ground Water	**Date Received:**	04/01/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q28191.D	1	04/07/15	EA	n/a	n/a	VQ1221
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether [a]	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	102%		70-130%

(a) AZ:M3,R9

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	PCM-510B		
Lab Sample ID:	C39181-2	**Date Sampled:**	03/31/15
Matrix:	AQ - Ground Water	**Date Received:**	04/01/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	Q28192.D	25	04/07/15	EA	n/a	n/a	VQ1221
Run #2 [a]	V24063.D	100	04/08/15	EA	n/a	n/a	VV958

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	28.8	25	ug/l	
108-88-3	Toluene	ND	25	ug/l	
100-41-4	Ethylbenzene	135	25	ug/l	
1330-20-7	Xylene (total)	374	50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	3940 [b]	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%	98%	70-130%
2037-26-5	Toluene-D8	105%	99%	70-130%
460-00-4	4-Bromofluorobenzene	105%	101%	70-130%

(a) AZ:D2
(b) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	R-037A		
Lab Sample ID:	C39181-3	**Date Sampled:**	03/31/15
Matrix:	AQ - Ground Water	**Date Received:**	04/01/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	U26356.D	50	04/04/15	JC	n/a	n/a	VU1083
Run #2 [a]	U26355.D	500	04/04/15	JC	n/a	n/a	VU1083

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	50	ug/l	
108-88-3	Toluene	ND	50	ug/l	
100-41-4	Ethylbenzene	133	50	ug/l	
1330-20-7	Xylene (total)	176	100	ug/l	
1634-04-4	Methyl Tert Butyl Ether [b]	19400 [c]	500	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%	124%	70-130%
2037-26-5	Toluene-D8	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	82%	82%	70-130%

(a) AZ:D2
(b) AZ:M2
(c) Result is from Run# 2

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39181-4	**Date Sampled:**	03/31/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/01/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R33756.D	1	04/09/15	EA	n/a	n/a	VR1273
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	0.50	ug/l	
75-25-2	Bromoform	ND	0.50	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	0.50	ug/l	
75-00-3	Chloroethane	ND	0.50	ug/l	
67-66-3	Chloroform	ND	0.50	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	0.50	ug/l	
75-34-3	1,1-Dichloroethane	ND	0.50	ug/l	
75-35-4	1,1-Dichloroethylene	ND	0.50	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	0.50	ug/l	
78-87-5	1,2-Dichloropropane	ND	0.50	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	0.50	ug/l	
75-71-8	Dichlorodifluoromethane	ND	0.50	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
541-73-1	m-Dichlorobenzene	ND	0.50	ug/l	
95-50-1	o-Dichlorobenzene	ND	0.50	ug/l	
106-46-7	p-Dichlorobenzene	ND	0.50	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C39181-4	**Date Sampled:**	03/31/15
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/01/15
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Price Service Center		

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	5.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	0.50	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	0.50	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	0.50	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	0.50	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	0.50	ug/l	
75-69-4	Trichlorofluoromethane	ND	0.50	ug/l	
75-01-4	Vinyl chloride	ND	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	94%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

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Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Arizona Qualifiers
- Chain of Custody

Arizona Qualifiers

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

The following Arizona qualifiers have been applied to data and/or QC in this report.

Qual	Description
D2	Sample required dilution due to high concentration of target analyte.
M2	Matrix spike recovery was low; the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to the spike level. The associated blank spike recovery was acceptable.
R9	Sample RPD exceeded the laboratory acceptance limit.

PHOENIX

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CHAIN OF CUSTODY

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 806632106275
Bottle Order Control #
Accutest Quote #
Accutest NC Job #: C C39181

Client / Reporting Information

Company Name: CITY OF TUCSON
Address: P.O. BOX 27210
City: TUCSON State: AZ. Zip: 85726
Project Contact: LORI EHMAN
Phone #: 520 791 3175
Samplers's Name: H.J. Vinislik H.J. VINISLIK

Project Information

Project Name: PRICE SERVICE CTR
Street:
City: State:
Project #: PO 1064
EMAIL:
Client Purchase Order #:

Requested Analysis

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-OI; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Collection Time	Sampled by	Matrix	# of bottles	HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MeOH	ENCORE	BTEX/MTBE 8260											LAB USE ONLY
1	PCM - 510A	3-31-15	0655	HJV	GW	3									X											
2	PCM - 510B	3-31-15	0705	HJV	GW	3									X											
3	R-037A	3-31-15	0725	HJV	GW	3									X											
4	TRIP BLANK					3										X										

Turnaround Time (Business days)

Approved By / Date:

- 10 Day
- 5 Day
- 3 Day
- 2 Day
- 1 Day
- Same Day

Emergency T/A data available VIA Lablink

Data Deliverable Information

- Commercial "A" - Results only
- Commercial "B" - Results with QC summaries
- Commerical "B+" - Results, QC, and chromatograms
- FULT1 - Level 4 data package
- EDF for Geotracker — EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time	Received By	Relinquished By	Date Time	Received By
1 H.J. Vinislik	3/31/15 1100	1 [signature]	2 [signature]	3/31/15 1200	2 Fedex
3 FEDEX	4/1/15 1000	3 [signature]	4	Date Time:	4
5		5			

Custody Seal # Y
Appropriate Bottle / Pres. Y/N
Labels match Coc? Y / N
Headspace Y/N
Separate Receiving Check List used: Y / N
On Ice Y/N
Cooler Temp. 2.7 | 2.7

C39181: Chain of Custody
Page 1 of 3

ACCUTEST LABORATORIES

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C39181 **Client:** CITY OF TUCSON **Project:** PRICE SERVICE CENTER

Date / Time Received: 4/1/2015 10:00:00 AM **Delivery Method:** FedEx **Airbill #'s:** 806632106275

Cooler Temps (Initial/Adjusted): #1: (2.7/2.7);

Cooler Security	Y	N		Y	N
1. Custody Seals Present:	☑	☐	3. COC Present:	☑	☐
2. Custody Seals Intact:	☑	☐	4. Smpl Dates/Time OK	☑	☐

Cooler Temperature	Y	N
1. Temp criteria achieved:	☑	☐
2. Cooler temp verification:	IR Gun	
3. Cooler media:	Ice (Bag)	
4. No, Coolers	1	

Quality Control Preservation	Y	N	N/A
1. Trip Blank present / cooler:	☑	☐	☐
2. Trip Blank listed on COC:	☑	☐	☐
3. Samples preserved properly:	☑	☐	
4. VOCs headspace free:	☑	☐	☐

Sample Integrity - Documentation	Y	N
1. Sample labels present on bottles:	☑	☐
2. Container labeling complete:	☑	☐
3. Sample container label / COC agree:	☑	☐

Sample Integrity - Condition	Y	N
1. Sample recvd within HT:	☑	☐
2. All containers accounted for:	☑	☐
3. Condition of sample:	Intact	

Sample Integrity - Instructions	Y	N	N/A
1. Analysis requested is clear:	☑	☐	
2. Bottles received for unspecified tests	☐	☑	
3. Sufficient volume recvd for analysis:	☑	☐	
4. Compositing instructions clear:	☐	☐	☑
5. Filtering instructions clear:	☐	☐	☑

Comments no tat specified

Accutest Laboratories
V:408.588.0200

2105 Lundy Avenue
F: 408.588.0201

San Jose, CA 95131
www/accutest.com

5.2

5

C39181: Chain of Custody
Page 2 of 3

ACCUTEST LABORATORIES

Sample Receipt Summary - Problem Resolution

Accutest Job Number: C39181

CSR: Elvin Kumar **Response Date:** 4/1/2015

Response: Project Specific TAT = 10 Day Standard

5.2

5

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C39181: Chain of Custody
Page 3 of 3

Northern California
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GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1083-MB	U26343.D	1	04/04/15	JC	n/a	n/a	VU1083

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-3

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	112%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	84%	70-130%

Method Blank Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1221-MB	Q28180.D	1	04/07/15	EA	n/a	n/a	VQ1221

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-1, C39181-2

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	95%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	96%	70-130%

Method Blank Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV958-MB	V24047.D	1	04/08/15	EA	n/a	n/a	VV958

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-2

CAS No.	Compound	Result	RL	Units	Q
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	99%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

Method Blank Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1273-MB	R33754.D	1	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	20	ug/l	
71-43-2	Benzene	ND	1.0	ug/l	
108-86-1	Bromobenzene	ND	1.0	ug/l	
74-97-5	Bromochloromethane	ND	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	1.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	ug/l	
75-15-0	Carbon disulfide	ND	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	ug/l	

Method Blank Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1273-MB	R33754.D	1	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

CAS No.	Compound	Result	RL	Units	Q
591-78-6	2-Hexanone	ND	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	ug/l	
74-83-9	Methyl bromide	ND	2.0	ug/l	
74-87-3	Methyl chloride	ND	1.0	ug/l	
74-95-3	Methylene bromide	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	ug/l	
100-42-5	Styrene	ND	1.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
79-01-6	Trichloroethylene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	93%	70-130%
2037-26-5	Toluene-D8	103%	70-130%

Method Blank Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1273-MB	R33754.D	1	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

CAS No.	Surrogate Recoveries		Limits
460-00-4	4-Bromofluorobenzene	92%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1083-BS	U26340.D	1	04/04/15	JC	n/a	n/a	VU1083
VU1083-BSD	U26341.D	1	04/04/15	JC	n/a	n/a	VU1083

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-3

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	17.8	89	17.9	90	1	77-122/25
100-41-4	Ethylbenzene	20	18.1	91	18.0	90	1	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	18.8	94	19.7	99	5	73-132/17
108-88-3	Toluene	20	17.7	89	17.7	89	0	75-122/17
1330-20-7	Xylene (total)	60	53.4	89	53.5	89	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	103%	106%	70-130%
2037-26-5	Toluene-D8	98%	98%	70-130%
460-00-4	4-Bromofluorobenzene	95%	98%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1221-BS	Q28177.D	1	04/07/15	EA	n/a	n/a	VQ1221
VQ1221-BSD	Q28178.D	1	04/07/15	EA	n/a	n/a	VQ1221

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-1, C39181-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.5	98	19.5	98	0	77-122/25
100-41-4	Ethylbenzene	20	20.3	102	19.9	100	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	20	19.2	96	18.8	94	2	73-132/17
108-88-3	Toluene	20	20.0	100	19.6	98	2	75-122/17
1330-20-7	Xylene (total)	60	60.0	100	59.2	99	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	99%	70-130%
2037-26-5	Toluene-D8	102%	99%	70-130%
460-00-4	4-Bromofluorobenzene	101%	99%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV958-BS	V24044.D	1	04/08/15	EA	n/a	n/a	VV958
VV958-BSD	V24045.D	1	04/08/15	EA	n/a	n/a	VV958

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-2

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
1634-04-4	Methyl Tert Butyl Ether	20	20.8	104	21.3	107	2	73-132/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	100%	100%	70-130%
2037-26-5	Toluene-D8	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	96%	100%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1273-BS	R33749.D	1	04/09/15	EA	n/a	n/a	VR1273
VR1273-BSD	R33750.D	1	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	68.2	85	66.4	83	3	38-159/24
71-43-2	Benzene	20	17.2	86	16.7	84	3	77-122/25
108-86-1	Bromobenzene	20	19.0	95	18.8	94	1	76-126/17
74-97-5	Bromochloromethane	20	17.0	85	16.3	82	4	77-130/17
75-27-4	Bromodichloromethane	20	16.6	83	16.2	81	2	75-127/16
75-25-2	Bromoform	20	15.2	76	14.9	75	2	69-141/17
104-51-8	n-Butylbenzene	20	19.3	97	19.0	95	2	72-129/18
135-98-8	sec-Butylbenzene	20	19.1	96	18.9	95	1	74-128/18
98-06-6	tert-Butylbenzene	20	19.2	96	18.6	93	3	73-127/18
108-90-7	Chlorobenzene	20	17.7	89	17.2	86	3	77-122/16
75-00-3	Chloroethane	20	15.2	76	14.8	74	3	69-133/18
67-66-3	Chloroform	20	16.8	84	16.1	81	4	74-126/17
95-49-8	o-Chlorotoluene	20	18.8	94	18.7	94	1	72-127/20
106-43-4	p-Chlorotoluene	20	19.8	99	19.5	98	2	68-127/18
75-15-0	Carbon disulfide	20	16.1	81	15.6	78	3	56-137/19
56-23-5	Carbon tetrachloride	20	17.3	87	16.7	84	4	71-133/19
75-34-3	1,1-Dichloroethane	20	16.0	80	15.3	77	4	71-125/17
75-35-4	1,1-Dichloroethylene	20	15.2	76	14.7	74	3	66-125/20
563-58-6	1,1-Dichloropropene	20	16.4	82	16.0	80	2	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	17.6	88	17.8	89	1	65-131/20
106-93-4	1,2-Dibromoethane	20	18.0	90	17.4	87	3	75-135/17
107-06-2	1,2-Dichloroethane	20	17.0	85	16.4	82	4	71-131/17
78-87-5	1,2-Dichloropropane	20	17.1	86	16.6	83	3	78-124/16
142-28-9	1,3-Dichloropropane	20	18.6	93	18.0	90	3	78-123/16
594-20-7	2,2-Dichloropropane	20	17.0	85	16.3	82	4	70-131/19
124-48-1	Dibromochloromethane	20	17.8	89	17.4	87	2	76-132/16
75-71-8	Dichlorodifluoromethane	20	14.9	75	14.0	70	6	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	16.4	82	16.0	80	2	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	17.4	87	17.0	85	2	72-130/16
541-73-1	m-Dichlorobenzene	20	18.5	93	18.3	92	1	75-124/16
95-50-1	o-Dichlorobenzene	20	18.5	93	18.3	92	1	76-124/16
106-46-7	p-Dichlorobenzene	20	18.8	94	18.5	93	2	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	15.6	78	15.1	76	3	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	17.5	88	17.2	86	2	71-126/16
100-41-4	Ethylbenzene	20	18.2	91	17.8	89	2	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	18.1	91	17.4	87	4	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1273-BS	R33749.D	1	04/09/15	EA	n/a	n/a	VR1273
VR1273-BSD	R33750.D	1	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	78.4	98	76.6	96	2	67-150/22
87-68-3	Hexachlorobutadiene	20	17.6	88	17.6	88	0	69-135/20
98-82-8	Isopropylbenzene	20	18.3	92	17.9	90	2	61-125/17
99-87-6	p-Isopropyltoluene	20	19.0	95	18.8	94	1	68-127/18
108-10-1	4-Methyl-2-pentanone	80	73.6	92	71.8	90	2	71-142/21
74-83-9	Methyl bromide	20	16.6	83	16.0	80	4	68-132/18
74-87-3	Methyl chloride	20	17.4	87	15.7	79	10	39-150/28
74-95-3	Methylene bromide	20	17.3	87	16.8	84	3	77-127/16
75-09-2	Methylene chloride	20	15.5	78	14.9	75	4	67-128/18
78-93-3	Methyl ethyl ketone	80	68.1	85	66.2	83	3	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	17.4	87	16.8	84	4	73-132/17
91-20-3	Naphthalene	20	16.8	84	17.6	88	5	70-136/20
103-65-1	n-Propylbenzene	20	18.7	94	18.4	92	2	71-127/17
100-42-5	Styrene	20	15.8	79	15.4	77	3	72-134/16
75-65-0	Tert-Butyl Alcohol	100	89.0	89	88.4	88	1	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	18.1	91	17.6	88	3	77-130/16
71-55-6	1,1,1-Trichloroethane	20	16.7	84	16.1	81	4	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	19.0	95	18.8	94	1	77-129/17
79-00-5	1,1,2-Trichloroethane	20	18.0	90	17.3	87	4	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	18.0	90	18.5	93	3	70-133/18
96-18-4	1,2,3-Trichloropropane	20	17.4	87	17.0	85	2	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	18.4	92	18.4	92	0	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	19.0	95	18.8	94	1	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	19.6	98	19.5	98	1	77-129/17
127-18-4	Tetrachloroethylene	20	17.0	85	16.8	84	1	69-127/20
108-88-3	Toluene	20	18.0	90	17.6	88	2	75-122/17
79-01-6	Trichloroethylene	20	16.5	83	16.3	82	1	78-123/17
75-69-4	Trichlorofluoromethane	20	17.2	86	17.0	85	1	65-136/23
75-01-4	Vinyl chloride	20	15.9	80	15.2	76	5	57-146/22
1330-20-7	Xylene (total)	60	53.7	90	52.6	88	2	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	93%	91%	70-130%
2037-26-5	Toluene-D8	103%	103%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1273-BS	R33749.D	1	04/09/15	EA	n/a	n/a	VR1273
VR1273-BSD	R33750.D	1	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
460-00-4	4-Bromofluorobenzene	99%	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VU1083-LCS	U26342.D	1	04/04/15	JC	n/a	n/a	VU1083

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-3

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	106%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	88%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1221-LCS	Q28179.D	1	04/07/15	EA	n/a	n/a	VQ1221

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-1, C39181-2

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	93%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV958-LCS	V24046.D	1	04/08/15	EA	n/a	n/a	VV958

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-2

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	98%	70-130%
460-00-4	4-Bromofluorobenzene	100%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1273-LCS	R33751.D	1	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	90%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39181-3MS	U26357.D	500	04/04/15	JC	n/a	n/a	VU1083
C39181-3MSD	U26358.D	500	04/04/15	JC	n/a	n/a	VU1083
C39181-3 [a]	U26356.D	50	04/04/15	JC	n/a	n/a	VU1083
C39181-3 [a]	U26355.D	500	04/04/15	JC	n/a	n/a	VU1083

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-3

CAS No.	Compound	C39181-3 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	31.0		10000	9010	90	10000	8810	88	2	77-122/16
100-41-4	Ethylbenzene	133		10000	9260	91	10000	9090	90	2	76-126/17
1634-04-4	Methyl Tert Butyl Ether	19400 [c]		10000	27200	78	10000	26300	69* [b]	3	73-132/17
108-88-3	Toluene	ND		10000	8860	89	10000	8840	88	0	75-122/17
1330-20-7	Xylene (total)	176		30000	27100	90	30000	26800	89	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39181-3	C39181-3	Limits
1868-53-7	Dibromofluoromethane	107%	101%	117%	124%	70-130%
2037-26-5	Toluene-D8	99%	99%	99%	98%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	82%	82%	70-130%

(a) AZ:D2
(b) Outside laboratory control limits. AZ:M2
(c) Result is from Run #2.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39181-2MS	Q28193.D	25	04/07/15	EA	n/a	n/a	VQ1221
C39181-2MSD	Q28194.D	25	04/07/15	EA	n/a	n/a	VQ1221
C39181-2 [a]	Q28192.D	25	04/07/15	EA	n/a	n/a	VQ1221

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-1, C39181-2

CAS No.	Compound	C39181-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	28.8		500	508	96	500	502	95	1	77-122/16
100-41-4	Ethylbenzene	135		500	634	100	500	617	96	3	76-126/17
1634-04-4	Methyl Tert Butyl Ether	3850	E	500	4120	54* [b]	500	3450	-80* [b]	18* [c]	73-132/17
108-88-3	Toluene	5.3		500	487	96	500	486	96	0	75-122/17
1330-20-7	Xylene (total)	374		1500	1850	98	1500	1840	98	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39181-2	Limits
1868-53-7	Dibromofluoromethane	100%	94%	108%	70-130%
2037-26-5	Toluene-D8	99%	98%	105%	70-130%
460-00-4	4-Bromofluorobenzene	99%	95%	105%	70-130%

(a) AZ:D2
(b) Outside control limits due to high level in sample relative to spike amount. AZ:M3
(c) Outside control limits due to high level in sample relative to spike amount. AZ:R9

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39197-14MS	R33772.D	25	04/09/15	EA	n/a	n/a	VR1273
C39197-14MSD	R33781.D	25	04/10/15	EA	n/a	n/a	VR1273
C39197-14 [a]	R33771.D	25	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

CAS No.	Compound	C39197-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		2000	1960	98	2000	1730	87	12	38-159/24
71-43-2	Benzene	947		500	1470	105	500	1370	85	7	77-122/16
108-86-1	Bromobenzene	ND		500	463	93	500	464	93	0	76-126/17
74-97-5	Bromochloromethane	ND		500	409	82	500	409	82	0	77-130/17
75-27-4	Bromodichloromethane	ND		500	385	77	500	394	79	2	75-127/16
75-25-2	Bromoform	ND		500	289	58* [b]	500	334	67* [b]	14	69-141/17
104-51-8	n-Butylbenzene	12.4	J	500	487	95	500	487	95	0	72-129/18
135-98-8	sec-Butylbenzene	5.5	J	500	489	97	500	485	96	1	74-128/18
98-06-6	tert-Butylbenzene	ND		500	612	122	500	612	122	0	73-127/18
108-90-7	Chlorobenzene	ND		500	441	88	500	435	87	1	77-122/16
75-00-3	Chloroethane	ND		500	393	79	500	395	79	1	69-133/18
67-66-3	Chloroform	ND		500	415	83	500	404	81	3	74-126/17
95-49-8	o-Chlorotoluene	ND		500	478	96	500	472	94	1	72-127/20
106-43-4	p-Chlorotoluene	ND		500	470	94	500	462	92	2	68-127/18
75-15-0	Carbon disulfide	ND		500	323	65	500	379	76	16	56-137/19
56-23-5	Carbon tetrachloride	ND		500	428	86	500	431	86	1	71-133/19
75-34-3	1,1-Dichloroethane	ND		500	401	80	500	389	78	3	71-125/17
75-35-4	1,1-Dichloroethylene	ND		500	396	79	500	386	77	3	66-125/20
563-58-6	1,1-Dichloropropene	ND		500	419	84	500	410	82	2	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		500	460	92	500	459	92	0	65-131/20
106-93-4	1,2-Dibromoethane	ND		500	447	89	500	443	89	1	75-135/17
107-06-2	1,2-Dichloroethane	ND		500	422	84	500	408	82	3	71-131/17
78-87-5	1,2-Dichloropropane	ND		500	424	85	500	415	83	2	78-124/16
142-28-9	1,3-Dichloropropane	ND		500	468	94	500	458	92	2	78-123/16
594-20-7	2,2-Dichloropropane	ND		500	389	78	500	424	85	9	70-131/19
124-48-1	Dibromochloromethane	ND		500	381	76	500	414	83	8	76-132/16
75-71-8	Dichlorodifluoromethane	ND		500	457	91	500	406	81	12	32-168/28
156-59-2	cis-1,2-Dichloroethylene	ND		500	404	81	500	402	80	0	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		500	388	78	500	418	84	7	72-130/16
541-73-1	m-Dichlorobenzene	ND		500	451	90	500	454	91	1	75-124/16
95-50-1	o-Dichlorobenzene	ND		500	452	90	500	457	91	1	76-124/16
106-46-7	p-Dichlorobenzene	ND		500	458	92	500	460	92	0	75-124/16
156-60-5	trans-1,2-Dichloroethylene	ND		500	393	79	500	389	78	1	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		500	397	79	500	426	85	7	71-126/16
100-41-4	Ethylbenzene	512		500	1050	108	500	990	96	6	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		500	449	90	500	439	88	2	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39197-14MS	R33772.D	25	04/09/15	EA	n/a	n/a	VR1273
C39197-14MSD	R33781.D	25	04/10/15	EA	n/a	n/a	VR1273
C39197-14 [a]	R33771.D	25	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

6.4.3

6

CAS No.	Compound	C39197-14 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		2000	2120	106	2000	1980	99	7	67-150/22
87-68-3	Hexachlorobutadiene	ND		500	408	82	500	433	87	6	69-135/20
98-82-8	Isopropylbenzene	50.4		500	528	96	500	519	94	2	61-125/17
99-87-6	p-Isopropyltoluene	ND		500	471	94	500	475	95	1	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		2000	1920	96	2000	1810	91	6	71-142/21
74-83-9	Methyl bromide	ND		500	414	83	500	419	84	1	68-132/18
74-87-3	Methyl chloride	ND		500	419	84	500	374	75	11	39-150/28
74-95-3	Methylene bromide	ND		500	422	84	500	417	83	1	77-127/16
75-09-2	Methylene chloride	ND		500	386	77	500	381	76	1	67-128/18
78-93-3	Methyl ethyl ketone	ND		2000	1820	91	2000	1700	85	7	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		500	431	86	500	428	86	1	73-132/17
91-20-3	Naphthalene	369		500	784	83	500	758	78	3	70-136/20
103-65-1	n-Propylbenzene	138		500	632	99	500	614	95	3	71-127/17
100-42-5	Styrene	ND		500	395	79	500	399	80	1	72-134/16
75-65-0	Tert-Butyl Alcohol	ND		2500	2700	108	2500	2310	92	16	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		500	450	90	500	453	91	1	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		500	426	85	500	419	84	2	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		500	481	96	500	477	95	1	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		500	450	90	500	438	88	3	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		500	427	85	500	456	91	7	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		500	377	75	500	421	84	11	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		500	429	86	500	451	90	5	68-129/17
95-63-6	1,2,4-Trimethylbenzene	235		500	766	106	500	740	101	3	74-129/17
108-67-8	1,3,5-Trimethylbenzene	66.7		500	585	104	500	584	103	0	77-129/17
127-18-4	Tetrachloroethylene	ND		500	419	84	500	415	83	1	69-127/20
108-88-3	Toluene	397		500	898	100	500	859	92	4	75-122/17
79-01-6	Trichloroethylene	ND		500	423	85	500	412	82	3	78-123/17
75-69-4	Trichlorofluoromethane	ND		500	464	93	500	466	93	0	65-136/23
75-01-4	Vinyl chloride	ND		500	431	86	500	427	85	1	57-146/22
1330-20-7	Xylene (total)	1370		1500	3010	109	1500	2850	99	5	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C39197-14	Limits
1868-53-7	Dibromofluoromethane	91%	91%	92%	70-130%
2037-26-5	Toluene-D8	105%	103%	104%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C39181
Account: CTESAZT City of Tucson Environmental Services
Project: Price Service Center

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C39197-14MS	R33772.D	25	04/09/15	EA	n/a	n/a	VR1273
C39197-14MSD	R33781.D	25	04/10/15	EA	n/a	n/a	VR1273
C39197-14 [a]	R33771.D	25	04/09/15	EA	n/a	n/a	VR1273

The QC reported here applies to the following samples: **Method:** SW846 8260B

C39181-4

6.4.3

6

CAS No.	Surrogate Recoveries	MS	MSD	C39197-14	Limits
460-00-4	4-Bromofluorobenzene	100%	99%	97%	70-130%

(a) Sample vial contained more than 0.5cm of sediment.
(b) Outside laboratory control limits. AZ:M2

* = Outside of Control Limits.

APPENDIX E

Historical Analytical Results Summary Table

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-208A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-208A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-208A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3
WR-208A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-208A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-208A	3/23/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-208A	3/23/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-208A	3/24/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-208A	3/14/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A	3/21/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A DUP	3/21/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A	4/11/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A DUP	4/11/05	<0.5	0.3	3.4	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A	3/25/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A DUP	3/25/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-208A	4/11/03	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-208A	3/21/02	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-208A	4/18/01	1.4	1.4	<2.0	<2.0	3.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-208A	12/6/94	<0.5	0.3	<0.5	<0.5	1.2	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	1.2a	<0.5	<1.0	NA
WR-208A	10/6/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-208A	6/22/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	3/25/94	<0.5	0.3	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-208A DUP	3/25/94	<0.5	0.3	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-208A	2/23/94	0.8	0.8	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	1/25/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A DUP	1/25/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	12/28/93	<0.5	0.3	0.6	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	12/1/93	<0.5	0.3	0.8	<0.5	1.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	10/27/93	<0.5	0.3	<0.5	<0.5	1.2	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	9/30/93	3.7	3.7	8	2.9	11	<0.5	<0.5	NA	0.7	<0.5	1.9	<0.5	<0.5	<0.5	0.8	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-208A	6/17/93	0.5	0.5	0.7	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-208A	3/30/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-208A	11/7/92	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-209A	3/19/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21.6
WR-209A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	41.5
WR-209A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	87
WR-209A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	80
WR-209A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	182
WR-209A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	178
WR-209A	3/21/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	308
WR-209A	4/7/10	<0.5	0.3	<0.2	<0.2	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290
WR-209A	4/6/09	<0.5	0.3	<0.2	<0.2	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	670
WR-209A	4/7/08	<0.5	0.3	<0.5	2.7	3.7	<1	1	<1	1.2	<1	2.8	<1	<1	<1	<1	NA	<0.5	<0.5	<2	<0.5	<0.5	700
WR-209A (DUP)	4/7/08	<0.5	0.3	<0.5	2.7	3.5	<1	1	<1	1.2	<1	2.8	<1	<1	<1	<1	NA	<0.5	<0.5	<2	<0.5	<0.5	710
WR-209A	3/30/06	1.5	1.5	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	480
WR-209A	5/2/05	3.7	3.7	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1600
WR-209A	12/28/04	11	11	<3.0	3.4	8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1200
WR-209A	3/31/04	1.9	1.9	14	<2.0	6.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	560
WR-209A	4/14/03	52	52	<2.0	22	35	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	3/21/02	510	510	<2.0	37	30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A DUP	3/21/02	440	440	<20	38	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	4/17/01	2100	2100	<20	66	31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	7/27/99	540	540	<40	<40	<80	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	1/29/99	940	940	5.4	18	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	11	<2	<2	NA
WR-209A	10/13/98	830	830	55	60	<75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-209A	1/30/98	1700	1700	<125	<125	<125	<125	<125	NA	<125	<125	<125	<125	<125	<125	<125	<125*	<125*	NA	<125*	<125*	<125	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-209A	7/31/97	2100	2100	110	160	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	190	<0.5	<0.5	NA
WR-209A	5/1/97	2000	2000	160	260	160	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-209A	1/16/97	2100	2100	<5.0	240	<100	<50	<50	NA	<50	<50	<50	<50	<50	<50	<50	<50*	<50*	NA	NA	<50	<50	NA
WR-209A	10/31/96	3600	3600	410	480	149	<50	<50	NA	<50	<50	<50	<50	<50	<50	65	<50*	<50*	NA	110	<50	<50	NA
WR-209A	8/1/96	3900	3900	420	220	<200	<100	<100	NA	<100	<100	<100	<100	<100	<100	<100	<100*	<100*	NA	<200*	<200*	<100	NA
WR-209A	4/25/96	3600	3600	580	480	250	<50	<50	NA	<50	<50	72	<50	<50	<50	100	<50*	<50*	NA	<100*	<50	<50	NA
WR-209A	3/4/96	3800	3800	370	420	192	<25	40	NA	<25	<25	57	<25	<25	<25	110	<25*	<25*	NA	90	<25	<25	NA
WR-209A	12/18/95	1600	1600	240	180	110	<50	<50	NA	<50	<50	<50	<50	<50	<50	<50	<50*	<50*	NA	<50*	<50	<50	NA
WR-209A	9/14/95	3500	3500	460	460	130	<50	<50	NA	<50	<50	6.4	<50	<50	<50	9.9	<50*	<50*	NA	<50*	<50	<50	NA
WR-209A	6/20/95	6500	6500	740	840	250	<100	<100	NA	<100	<100	130	<100	<100	<100	140	<100*	<100*	NA	<100*	<100*	<100	NA
WR-209A	3/17/95	2800	2800	380	360	260	<50	<50	NA	<50	<50	86	<50	<50	<50	70	<100*	<50*	NA	<50*	<50	<100	NA
WR-209A	12/13/94	2600	2600	360	430	180	<50	60	NA	<50	<50	95	<50	<50	<50	84	<100*	<50*	NA	<100*	<50	<100	NA
WR-209A	10/5/94	2500	2500	150	290	76	26	<25	NA	<25	<25	<25	<25	<25	<25	33	NA	NA	NA	NA	<25	NA	NA
WR-209A	6/28/94	2500	2500	55	310	<25	<25	25	NA	<25	<25	<25	<25	<25	<25	18	0.02	NA	NA	NA	<25	NA	NA
WR-209A	3/30/94	2400	2400	81	330	45	26	27	NA	<5	<5	25	<5	<5	6.5	27	<10*	<5	NA	<20*	<10	<10	NA
WR-209A	1/5/94	1700	1700	130	200	64	6.5	17	NA	<5	<5	14	<5	<5	<5	18	NA	NA	NA	NA	<10	NA	NA
WR-209A	9/30/93	1400	1400	73	170	65	<10	15	NA	<10	<10	19	<10	<10	<10	<10	<20*	<10*	NA	<40*	<20	<20	NA
WR-209A	6/18/93	1800	1800	150	190	<100	<50	<50	NA	<50	<50	120	<50	<50	<50	<50	NA	NA	NA	NA	<100*	NA	NA
WR-209A	3/30/93	1500	1500	210	140	180	6.1	16	NA	44	<0.5	72	0.7	<0.5	15	27	<1.0*	1.5	NA	<2.0	<1.0	<1.0	NA
WR-209A DUP	3/30/93	760	760	93	60	83	1.6	3.9	NA	14	<0.5	33	<0.5	<0.5	4.5	7.3	<1.0*	0.9	NA	8.4	<1.0	<1.0	NA
WR-209A	11/13/92	1800	1800	1200	200	870	<100	<100	NA	<100	<100	120	<100	<100	<100	<100	<200*	<10*	NA	<400*	<200*	200	NA
WR-210A	3/20/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	25.4
WR-210A	3/26/14	3.8	3.8	<1	67.5	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	72.2
WR-210A	3/26/13	1.5	1.5	<2	3.9	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	89
WR-210A	3/26/13	<1	0.5	<2	6.1	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	90
WR-210A	3/21/12	104	104	4.16	108	29.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	286
WR-210A	12/6/11	161	161	3.79	112	10.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360
WR-210A	9/14/11	274	274	9.02	202	29	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	507
WR-210A	3/21/11	376	376	<20	174	22.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1700
WR-210A	4/7/10	12	12	<2	5.4	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	250
WR-210A	4/2/09	62	62	<20	43	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	N	NA	NA	NA	NA	NA	NA	770
WR-210A	4/7/08	3.6	3.6	0.51	13	14	<1	3	<1	3.9	<1	9.1	<1	<1	<1	2.4	NA	<0.5	<0.5	<2	<0.5	<0.5	130
WR-210A	4/3/07	2.5	2.5	<3.0	5	7.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	N	NA	NA	NA	NA	NA	NA	200
WR-210A	4/3/06	14	14	26	390	94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	390
WR-210A DUP	4/3/06	13	13	13	24	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	350
WR-210A	5/3/05	72	72	10	24	52	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	640
WR-210A	12/28/04	740	740	250	580	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2400
WR-210A	4/11/03	550	550	32	66	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-210A	3/18/02	570	570	26	35	76	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-210A	4/17/01	440	440	440	580	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-210A	7/22/99	100	100	630	130	670	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-210A	1/29/99	44	44	96	70	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.8	NA	<10*	<2	<2	NA
WR-210A	12/18/95	1000	1000	3500	800	2500	<62.5	120	NA	220	<62.5	890	<62.5	<62.5	<62.5	200	<62.5*	<62.5*	NA	<62.5*	<62.5	<62.5	NA
WR-210A	9/14/95	3000	3000	4500	1000	2400	<50	130	NA	160	<50	690	<50	<50	<50	180	<50*	<50*	NA	<50*	<50	<50	NA
WR-210A	6/20/95	3400	3400	4100	1200	1800	<100	130	NA	120	<100	550	<100	<100	<100	170	<100*	<100*	NA	<100*	<100*	<100	NA
WR-210A	3/17/95	2400	2400	3300	1200	1800	51	100	NA	100	<50	550	<50	<50	72	170	<100*	<50*	NA	<50*	<50	<100	NA
WR-210A	10/4/94	2000	2000	3600	1100	2000	<50	130	NA	180	<50	680	<50	<50	<50	140	NA	NA	NA	NA	<50	NA	NA
WR-210A DUP	10/4/94	1800	1800	3100	930	1800	<50	95	NA	110	<50	440	<50	<50	<50	110	NA	NA	NA	NA	<50	NA	NA
WR-210A	6/28/94	4100	4100	5900	1200	3400	40	150	NA	230	<25	860	<25	<25	120	250	7.6	NA	NA	NA	<25	NA	NA
WR-210A	3/31/94	3700	3700	3500	860	2400	40	130	NA	210	<5.0	820	<5.0	<5.0	200	270	<10*	<5.0	NA	<20*	<10	<10	NA
WR-210A	1/5/94	3200	3200	1900	720	1500	20	78	NA	150	<5.0	550	<5.0	<5.0	53	180	NA	NA	NA	NA	<10	NA	NA
WR-210A	10/1/93	3200	3200	2100	690	2100	25	86	NA	210	<10	650	<10	<10	89	140	<20*	<10*	NA	<40*	<20	<20	NA
WR-210A	6/18/93	2900	2900	2700	710	2700	<500	<500	NA	<500	<500	510	<500	<500	<500	<500	NA	NA	NA	NA	<1,000*	NA	NA
WR-210A	3/31/93	2500	2500	1300	350	1000	14	40	NA	92	<0.5	170	1.5	0.7	30	77	2	23	NA	<2.0	<1.0	<1.0	NA
WR-210A DUP	3/31/93	2400	2400	1300	350	1000	14	40	NA	89	<0.5	180	1.5	0.6	28	67	2.1	22	NA	<2.0	<1.0	<1.0	NA
WR-210A	11/13/92	3800	3800	4200	690	3200	<250	<250	NA	<250	<150	<250	<250	<250	<250	<250	<500*	<250*	NA	<1,000*	<500*	<500	NA
	WR-210A was not sampled between years 1995 - 1999 due to free product.																						

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-211A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-211A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-211A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-211A	3/27/13	<1	0.5	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-211A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-211A	3/28/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-211A DUP	3/28/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-211A	3/30/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-211A	3/31/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3
WR-211A	4/3/08	<0.5	0.3	<3	4	8.6	<2.5	<2	<5	<1.5	<2.5	3	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	2.8
WR-211A	3/28/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.2
WR-211A DUP	3/28/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	N	NA	NA	NA	NA	NA	NA	3.7
WR-211A	4/5/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3
WR-211A DUP	4/5/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.3
WR-211A	5/10/05	2.6	2.6	7.5	<2.0	8.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.1
WR-211A	4/28/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9
WR-211A	3/26/04	1.8	1.8	6.5	2.8	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14
WR-211A	4/10/03	49	49	2.5	4.3	8.31	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-211A DUP	4/10/03	48	48	<2.0	4.5	8.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-211A	3/14/02	16	16	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-211A	4/18/01	180	180	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-211A	7/27/99	12	12	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-211A	1/29/99	53	53	<2	11	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.9	NA	<10*	<2	<2	NA
WR-211A DUP	1/29/99	48	48	<2	10	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.4	NA	<10*	<2	<2	NA
WR-211A	10/13/98	110	110	7.5	45	470	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-211A	1/30/98	32	32	<2	5	<4	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2*	<2	NA	<2	<2	<2	NA
WR-211A DUP	1/29/98	32	32	<2	3.6	<4	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2*	<2	NA	<2	<2	<2	NA
WR-211A	7/30/97	120	120	<0.5	88	<1.0	<0.5	18	NA	<0.5	<0.5	29	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-211A	5/1/97	280	280	31	140	30	18	26	NA	24	<0.5	46	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	81	<0.5	<0.5	NA
WR-211A	1/16/97	440	440	<10	240	<20	11	<10	NA	<10	<10	38	<10	<10	<10	<10	<10*	<10*	NA	NA	<10	<10	NA
WR-211A	10/31/96	520	520	<5.0	160	120	8.7	22	NA	6.9	<5.0	24	<0.5	<5.0	<5.0	10	<5.0*	24	NA	14	<5.0	<5.0	NA
WR-211A	7/31/96	1700	1700	<50	230	<100	<50	<50	NA	<50	<50	<50	<50	<50	<50	<50	<50*	<50*	NA	<100*	<100*	<50	NA
WR-211A	4/25/96	1400	1400	<25	360	<52	<25	47	NA	27	<25	53	<25	<25	<25	43	<25*	<25*	NA	<50*	<25	<25	NA
WR-211A	3/1/96	1500	1500	72	350	54	<25	41	NA	<25	<25	57	<25	<25	<25	27	<25*	<25*	NA	110	<25	<25	NA
WR-211A	12/18/95	1300	1300	52	350	<50	<50	<50	NA	<50	<50	58	<50	<50	<50	<50	<50*	<50*	NA	<50*	<50	<50	NA
WR-211A	9/15/95	2400	2400	410	550	94	<50	60	NA	<50	<50	<50	<50	<50	<50	<50	<50*	51	NA	<50*	<50	<50	NA
WR-211A	6/20/95	2300	2300	150	490	<50	<50	54	NA	<50	<50	150	<50	<50	<50	<50	<50*	<50*	NA	<50*	<50	<50	NA
WR-211A DUP	6/20/95	2200	2200	120	500	<50	<50	55	NA	<50	<50	170	<50	<50	<50	<50	<50*	<50*	NA	<50*	<50	<50	NA
WR-211A	3/17/95	4300	4300	760	700	310	<63	<63	NA	<63	<63	290	<63	<63	<63	81	<125*	<63*	NA	<63*	<63	<125	NA
WR-211A	12/13/94	4900	4900	510	730	290	<100	<100	NA	<100	<100	410	<100	<100	<100	170	<200*	<100*	NA	<100*	<100*	<200	NA
WR-211A	10/5/94	5400	5400	670	460	230	<50	<50	NA	<50	<50	<50	<50	<50	<50	<50	NA	NA	NA	NA	<50	NA	NA
WR-211A	6/28/94	5400	5400	1300	480	690	<50	<50	NA	61	<50	250	<50	<50	<50	67	2	NA	NA	NA	<50	NA	NA
WR-211A DUP	6/28/94	5900	5900	1400	540	850	<50	<50	NA	81	<50	300	<50	<50	<50	90	NA	NA	NA	NA	<50	NA	NA
WR-211A	3/31/94	5600	5600	1500	500	820	29	42	NA	78	<5.0	310	<5.0	<5.0	70	<5.0	<10*	37	NA	<20*	<10	<10	NA
WR-211A	1/5/94	5200	5200	1700	270	690	7.1	22	NA	48	<5.0	180	<5.0	<5.0	15	49	NA	NA	NA	NA	<10	NA	NA
WR-211A	10/1/93	4100	4100	1300	220	510	<25	<25	NA	44	<25	120	<25	<25	<25	38	<50*	<25*	NA	<100*	<50	<25	NA
WR-211A	6/17/93	3400	3400	1200	310	1200	7.8	29	NA	75	<5.0	220	<5.0	<5.0	29	48	NA	NA	NA	NA	<10	NA	NA
WR-211A	3/31/93	2900	2900	650	180	410	9.5	24	NA	55	<0.5	95	1.1	0.5	21	44	1.6	22	NA	<2.0	<1.0	<1.0	NA
WR-211A	11/10/92	2400	2400	1200	200	830	7.3	<0.5	NA	52	<0.5	160	1	<0.5	<0.5	<0.5	1.1	15	NA	<2.0	<1.0	<1.0	NA
WR-212A	3/18/15	3.3	3.3	1.5	62.8	3.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	79.2
WR-212A	3/19/14	5.1	5.1	<2	17.7	<4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	64.8
WR-212A	3/27/13	<1.2	0.6	<2.8	71	8.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	58
WR-212A	3/29/12	5	5	<20	87.7	5800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77.6
WR-212A	3/28/11	4.89	4.89	3.22	149	313	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140
WR-212A	4/6/10	8.4	8.4	<2	35	46	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	280
WR-212A	4/6/09	230	230	46	150	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	430

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-212A	4/8/08	980	980	250	350	1400	17	44	<5	150	<5	470	5.3	17	6.2	110	NA	<2.5	<2.5	<10	<2.5	<2.5	470
WR-212A	4/4/07	640	640	310	210	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	910
WR-212A	4/11/06	1,100	1100	740	290	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	670
WR-212A	5/9/05	4400	4400	9000	880	6300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	650
WR-212A	5/2/97	10000	10000	360	1700	<1.0	<0.5	<0.5	NA	540	<0.5	950	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-212A	1/16/97	8300	8300	320	2900	<500	<250	<250	NA	<310	750	<250	<250	<250	<250	<250	<250*	<250*	NA	NA	<250*	<250	NA
WR-212A	10/31/96	12000	12000	870	3100	930	<250	<250	NA	450	<250	1200	<250	<250	<250	320	<250*	<250*	NA	<500*	<250*	<250	NA
WR-212A	8/1/96	15000	15000	1600	1800	<1,000	<500	<500	NA	<500	<500	<500	<500	<500	<500	<500	<500*	<500*	NA	<1,000*	<1,000*	<500	NA
WR-212A	4/26/96	14000	14000	3000	3200	<1,550	<250	270	NA	470	<250	1200	<250	<250	<250	600	<250*	<250*	NA	<500*	<250*	<250	NA
WR-212A	3/4/96	16000	16000	3200	3200	1960	<250	250	NA	460	<250	1300	<250	<250	<250	680	<250*	<250*	NA	910	<250*	<250	NA
WR-212A	12/13/95	15000	15000	3200	3300	1940	<250	<250	NA	450	<250	1900	<250	<250	<250	670	<250*	<250*	NA	<250*	<250*	<250	NA
WR-212A	9/14/95	15000	15000	2400	3300	1400	<250	270	NA	460	<250	1800	<250	<250	<250	560	<250*	<250*	NA	<250*	<250*	<250	NA
WR-212A	6/19/95	15000	15000	2800	3000	1600	<250	<250	NA	340	<250	1400	<250	<250	<250	540	<250*	<250*	NA	<250*	<250*	<250	NA
WR-212A	3/15/95	14000	14000	2300	2400	1700	<250	<250	NA	450	<250	1100	<250	<250	<250	490	<500*	<250*	NA	<250*	<250*	<500	NA
WR-212A	12/13/94	13000	13000	3500	2700	2700	<250	420	NA	710	<250	1400	<250	<250	<250	480	<500*	<250*	NA	<250*	<250*	<500	NA
WR-212A	10/5/94	16000	16000	4300	2700	2900	<125	170	NA	280	<125	1300	<125	<125	<125	370	NA	NA	NA	NA	<125*	NA	NA
WR-212A DUP	10/5/94	16000	16000	4200	2700	2900	<125	170	NA	280	<125	1300	<125	<125	<125	420	NA	NA	NA	NA	<125*	NA	NA
WR-212A	6/29/94	14000	14000	7200	2500	970	<100	170	NA	370	<100	1200	<100	<100	160	400	15	NA	NA	NA	<100*	NA	NA
WR-212A	3/31/94	14000	14000	7300	2100	4500	180	170	NA	350	<10	1200	<10	<10	330	450	<20*	38	NA	<40*	<20	<20	NA
WR-212A	1/5/94	18000	18000	14000	2600	8300	45	160	NA	320	<5.0	1100	<5.0	<5.0	110	440	NA	NA	NA	NA	<10	NA	NA
WR-212A	9/30/93	15000	15000	14000	2300	9500	40	130	NA	330	<25	1000	<25	<25	89	340	<50*	36	NA	<100*	<50	<50	NA
WR-212A	6/18/93	17000	17000	1500	2800	13000	<50	160	NA	380	<50	1300	<50	<50	110	380	NA	NA	NA	NA	100	NA	NA
WR-212A	4/1/93	15000	15000	9400	1400	5600	34	100	NA	240	<5.0	680	<5.0	<5.0	59	240	17	62	NA	<20*	<10	<10	NA
WR-212A	11/13/92	16000	16000	10000	1500	7000	4.8	<0.5	NA	220	1100	<0.5	3.5	<0.5	75	270	32	55	NA	<2.0	<1.0	<1.0	NA
	WR-212A was not sampled between years 1997 - 2005 due to free product.																						
WR-213A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-213A	3/24/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-213A	3/21/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-213A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	3/16/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A DUP	3/16/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	4/14/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	3/18/08	<0.5	0.3	<3	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-213A	3/19/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-213A	3/21/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-213A	4/13/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-213A DUP	4/13/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-213A	3/25/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-213A	4/10/03	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-213A	3/21/02	1.3	1.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-213A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-213A	1/28/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-213A	1/28/98	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	7/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	4/30/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	1/15/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-213A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-213A	7/30/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<1.0	<0.5	NA
WR-213A	4/22/96	<0.5	0.3	1.8	1	7.1	<0.5	<0.5	NA	1.8	<0.5	2.1	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-213A	2/26/96	<0.5	0.3	0.7	<0.5	1.4	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-213A	12/12/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	9/13/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	6/16/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-213A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-213A	12/9/94	1.2	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-213A	10/8/94	2.6	2.6	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-213A	6/22/94	3.2	3.2	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-213A DUP	6/22/94	3.4	3.4	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-213A	3/25/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-213A	12/31/93	0.6	0.6	0.9	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-213A	9/29/93	6	6	6.5	1.1	3	<0.5	<0.5	NA	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-213A	6/18/93	23	23	66	11	63	<0.5	1.1	NA	2.6	<0.5	7.9	<0.5	<0.5	0.9	0.7	NA	NA	NA	NA	<1.0	NA	NA
WR-213A	4/1/93	120	120	160	39	160	1.5	2.7	NA	8.3	<0.5	24	<0.5	<0.5	1.6	9.8	<1.0*	0.6	NA	<2.0	<1.0	<1.0	NA
WR-213A	11/13/92	13	13	20	5.4	27	<1.0	<1.0	NA	<1.0	<1.0	2.7	<1.0	<1.0	<1.0	<1.0	<2.0*	<1.0	NA	<4.0	<1.0	<2.0	NA
WR-214A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-214A	3/20/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-214A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-214A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A	3/23/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A	4/14/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5.5
WR-214A	3/18/08	<0.5	0.3	<3	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A"DUP"	3/18/08	<0.5	0.3	<3	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-214A	3/14/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-214A	3/29/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-214A	5/2/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.1
WR-214A	3/26/04	5.7	5.7	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2
WR-214A	4/10/03	3.8	3.8	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-214A	3/21/02	28	28	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-214A	4/18/01	180	180	<2.0	20	5.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-214A	7/22/99	16	16	3.2	1.9	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-214A	1/28/99	11	11	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-214A	1/29/98	38	38	3.5	<2	<4	<2	<2	NA	<2	<2	<2	<2	<2	<2	<2	<2*	<2	NA	<2	<2	<2	NA
WR-214A	7/31/97	55	55	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-214A	4/30/97	33	33	2.5	4.7	<5.0	2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<2.5	<2.5	NA
WR-214A DUP	4/30/97	41	41	<0.5	4.9	<5.0	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<2.5	<2.5	NA
WR-214A	1/15/97	47	47	<2.5	<2.5	<5.0	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<5.0	<2.5	<2.5	NA
WR-214A	1/15/97	53	53	<2.5	<2.5	<5.0	<2.5	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<5.0	<2.5	<2.5	NA
WR-214A	10/30/96	120	120	25	1.4	16.8	0.6	<0.5	NA	1.2	<0.5	0.8	<0.5	<0.5	<0.5	0.6	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-214A	7/31/96	120	120	17	<5.0	<10	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0*	<5.0	NA	<10*	<5.0	<5.0	NA
WR-214A	4/24/96	230	230	140	16	78	<2.5	<2.5	NA	8	<2.5	9.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<5.0	<2.5	<2.5	NA
WR-214A	2/29/96	110	110	43	6	24	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0*	<5.0	NA	24	<5.0	<5.0	NA
WR-214A	12/13/95	180	180	61	8.3	23	<5.0	<5.0	NA	<5.0	<5.0	5.1	<5.0	<5.0	<5.0	<5.0	<5.0*	<5.0	NA	<5.0	<5.0	<5.0	NA
WR-214A	9/13/95	310	310	190	31	86	<5.0	5.1	NA	6.2	<5.0	18	<5.0	<5.0	<5.0	<5.0	<5.0*	<5.0	NA	<5.0	<5.0	<5.0	NA
WR-214A	6/16/95	370	370	210	90	92	<10	10	NA	<10	<10	15	<10	<10	<10	<10	<10*	<10*	NA	<10*	<10	<10	NA
WR-214A	3/15/95	420	420	260	86	100	<5.0	8.6	NA	7.8	<5.0	11	<5.0	<5.0	<5.0	<5.0	<10*	<5.0	NA	<5.0	<5.0	<10	NA
WR-214A	12/9/94	370	370	36	110	33	5.6	24	NA	7.5	<5.0	11	<5.0	<5.0	<5.0	<5.0	<10*	<5.0	NA	9	<5.0	<10	NA
WR-214A	10/3/94	240	240	170	61	54	<5.0	5.6	NA	<5.0	<5.0	8.4	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	NA	NA
WR-214A	6/28/94	250	250	55	86	43	<5.0	9.6	NA	6.6	<5.0	13	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	NA	NA
WR-214A DUP	6/28/94	250	250	54	83	41	<5.0	9	NA	6.9	<5.0	12	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<5.0	NA	NA
WR-214A	3/30/94	440	440	87	85	68	<5.0	8.2	NA	6.9	<5.0	14	<5.0	<5.0	<5.0	<5.0	<10*	<5.0	NA	<20*	<10	<10	NA
WR-214A	1/5/94	350	350	19	76	41	<5.0	7.7	NA	<5.0	<5.0	7.4	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA
WR-214A	9/30/93	1000	1000	460	170	360	5.1	9.9	NA	17	<5.0	40	<5.0	<5.0	6.1	17	<10*	<5.0	NA	<20*	<10	<10	NA
WR-214A	6/18/93	930	930	210	110	230	<5.0	7.6	NA	16	<5.0	31	<5.0	<5.0	5.4	5.1	NA	NA	NA	NA	<10	NA	NA
WR-214A	4/1/93	1000	1000	510	120	310	<5.0	6.8	NA	22	<5.0	47	<5.0	<5.0	<5.0	11	1.6	<5.0	NA	<20*	<10	<10	NA
WR-214A	11/13/92	1100	1100	690	<100	350	<5.0	<100	NA	<100	<100	<100	<100	<100	<100	<100	<200*	<100*	NA	<100*	<200*	<200	NA
WR-215A	3/24/15	72.3	72.3	<20	334	358	21.9	70.7	<40	108	<40	509	<40	<40	<40	262	<20	<10	<10	<100	<10	<20	1750
WR-215A	3/24/15	68.4	68.4	<20	335	352	24.8	81.8	<40	111	<40	543	<40	<40	<40	263	<20	<10	<10	<100	<10	<20	1650
WR-215A	3/20/14	151	151	67.4	768	3000	33.1	96.3	<40	332	<40	962	<40	33.1	<40	406	<20	<10	<10	<100	<10	<20	1780
WR-215A	3/23/11	288	288	<10	20.3	62	<12.5	<10	<25	<7.5	<12.5	15.6	<7.5	NA	<12.5	<25	<2.5	<7.5	NA	<15	<7.5	<2.5	1170
WR-215A	4/8/10	560	560	140	340	480	23	54	<5	72	<2.5	210	4	NA	<2.5	140	<0.5	<1.5	NA	<3	<1.5	<0.5	1800
WR-215A	4/13/09	1300	1300	1200	720	2600	40	96	<5	220	<2.5	820	8.8	NA	<2.5	350	<0.5	<1.5	<0.5	<3	<1.5	<0.5	1500

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-215A	12/28/04	1900	1900	8900	1200	11000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	900
WR-215A	3/30/04	560	560	290	150	1700	27	59	<5.0	290	NA	860	NA	NA	NA	200	<5.0	<1.5	NA	NA	<1.5	<0.50	1700
WR-215A	4/9/03	62	62	<15	64	150	17	47	<25	88	<13	180	11	<7.5	<13	44	NA	66	<2.5	<15	<7.5	<2.5	1700
WR-215A	3/20/02	170	170	240	160	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A DUP	3/20/02	170	170	240	160	630	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A	4/18/01	260	260	<100	<100	340	NA	NA	NA	NA	NA	250	NA	NA	NA	NA	NA	190	1800	NA	NA	NA	NA
WR-215A	3/29/00	800	800	100	<20	520	NA	18	40	130	390	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A	8/2/99	0.9	0.9	0.96	0.14	1.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A	4/5/99	1862	1862	1100	179	1432	<100	<100	NA	174	<100	505	<100	<100	<100	132	<100	229	NA	<100	<100	<100	NA
WR-215A	1/27/99	2500	2500	820	42	560	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110	NA	<10*	<2	<2	NA
WR-215A	10/14/98	1100	1100	<50	<50	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-215A	7/29/98	2500	2500	540	<125	980	<125	<125	NA	<125	<125	<125	<125	<125	<125	<125	6	136	NA	<125*	<125*	<125	NA
WR-215A	5/1/98	1800	1800	230	130	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	170	NA	<5	<0.5	<0.5	NA
WR-215A DUP	5/1/98	1600	1600	180	100	520	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<25*	NA	<250*	<25	<25	NA
WR-215A	5/2/97	1700	1700	130	130	520	65	<0.5	NA	180	<0.5	460	<0.5	<0.5	<0.5	290	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-215A	1/17/97	2700	2700	90	180	610	270	<5.0	NA	160	<5.0	460	9.9	<5.0	28	98	<5.0*	260	NA	<10*	<5.0	<5.0	NA
WR-215A	11/1/96	2500	2500	120	210	420	<50	75	NA	240	<50	430	<50	<50	<50	140	<50*	380	NA	<100*	<50	<50	NA
WR-215A	8/1/96	2900	2900	330	170	<200	<100	<100	NA	<100	<100	<100	<100	<100	<100	110	<100*	<200*	NA	<200*	<100*	<100	NA
WR-215A	4/25/96	2400	2400	170	550	270	<100	130	NA	170	<100	440	<100	<100	<100	190	<100*	<100*	NA	<200*	<100*	<100	NA
WR-215A	3/1/96	5200	5200	120	830	340	<100	130	NA	260	<100	500	<100	<100	<100	270	<100*	450	NA	460	<100*	<100	NA
WR-215A	12/18/95	7200	7200	210	1000	250	<100	120	NA	130	<100	530	<100	<100	<100	210	<125*	330	NA	<100*	<100*	<100	NA
WR-215A	9/13/95	7000	7000	160	1000	230	<125	<125	NA	<125	<125	530	<125	<125	<125	220	<125*	350	NA	<125*	<125*	<125	NA
WR-215A	6/16/95	8000	8000	<200	940	280	<200	<200	NA	<200	<200	550	<200	<200	<200	<200	<200*	360	NA	<200*	<200*	<200	NA
WR-215A	3/14/95	9500	9500	630	960	620	<50	86	NA	210	<50	570	<50	<50	50	140	<100*	260	NA	<50*	<50	<100	NA
WR-215A	12/13/94	11,000 c	11,000	650	890	1200	<50	230	NA	440	<50	880	<50	<50	150	280	<100*	240	NA	<50*	<50	<100	NA
WR-215A	10/5/94	4600	4600	290	420	240	<25	<25	NA	<25	<25	N140	<25	<25	<25	56	NA	NA	NA	NA	<25	NA	NA
WR-215A	6/29/94	9500	9500	580	560	970	<100	<100	NA	180	<100	590	<100	<100	<100	170	20	NA	NA	NA	<100*	NA	NA
WR-215A	3/31/94	12000	12000	640	590	1100	<100	100	NA	160	<100	580	<100	<100	120	260	<200*	300	NA	<400*	<200*	<200	NA
WR-215A	1/6/94	7700	7700	820	440	1200	14	51	NA	140	<5.0	460	<5.0	<5.0	77	130	NA	NA	NA	NA	<10	NA	NA
WR-215A	10/1/93	4700	4700	460	510	2800	31	100	NA	300	<25	990	<25	<25	<25	<25	<50*	<25*	NA	<100*	<50	<50	NA
WR-215A	6/18/93	12000	12000	8600	1500	8100	<50	110	NA	290	<50	1100	<50	<50	120	290	NA	NA	NA	NA	<100*	NA	NA
WR-215A	3/31/93	7200	7200	3200	590	2500	13	34	NA	100	<5.0	290	<5.0	<5.0	47	110	32	280	NA	<20*	<10	<10	NA
WR-215A	11/13/92	30000	30000	35000	2900	15000	<500	1100	NA	<500	2700	<500	<500	<500	<500	560	<1,000*	<500*	NA	<2,000*	<1,000*	<1,000	NA
	WR-215A was not sampled between 2012 - 2013 due to free product.																						
WR-216A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-216A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-216A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-216A	3/22/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-216A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-216A	3/24/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-216A	3/24/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-216A	3/26/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-216A	3/15/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-216A	5/11/05	<0.50	0.3	<3.0	<2.0	3.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-217A	3/24/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-217A	3/20/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-217A	9/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-217A	3/21/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	NA	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-217A	3/21/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	NA	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-217A	3/26/12	<0.5	0.3	<2.0	<2.0	<1.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-217A	3/23/11	<0.5	0.3	<2.0	<2.0	<1.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-217A	3/29/10	<0.5	0.3	<2.0	<2.0	<3.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-217A	3/30/09	<0.5	0.3	<2.0	<2.0	<3.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-217A	3/30/09	<0.5	0.3	<2.0	<2.0	<3.0	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-217A	4/2/08	<0.5	0.3	<3	2.3	3.5	<2.5	<2	<5	<1.5	<2.5	2.5	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-217A	3/29/07	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	NA	<1.5	N	<2.0	<1.5	NA	<2.5	<5.0	NA	NA	NA	NA	NA	NA	<2.0

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-217A	4/11/05	<0.5	0.3	4.6	<2.0	<3.0	<2.5	<2.0	NA	<1.5	NA	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-217A	3/25/04	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	NA	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.50	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-217A	4/9/03	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-217A	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-217A	4/16/01	<1	0.5	<1	<1	<2	NA	NA	NA	<1	NA	250	NA	NA	NA	NA	NA	<0.5	<0.5	NA	NA	NA	NA
WR-217A	3/29/00	<10*	0.5	<10	<10	<20	NA	18	40	130	390	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-217A	7/2/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-217A	4/5/99	1.5	1.5	1.3	<0.5	3.4	<100	<100	NA	174	N100	505	<100	N100	N100	132	N100*	229	NA	N100*	N100*	N100	NA
WR-217A	1/29/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	110	NA	<10*	<2	<2	NA
WR-217A	10/14/98	1.2	1.2	3.3	<0.5	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-217A	7/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<125	<125	NA	<125	<125	<125	<125	<125	<125	<125	6	136	NA	<125*	<125*	<125	NA
WR-218A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-218A	3/24/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-218A	3/21/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-218A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-218A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.25
WR-218A	4/5/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	42
WR-218A	4/2/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	48
WR-218A	4/3/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	41
WR-218A	4/2/07	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	46
WR-218A	4/14/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	56
WR-218A	3/25/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	57
WR-219A	3/24/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-219A	3/21/14	<2	1	<2	<2	<4	<2	<4	<4	<4	<4	<4	<4	<4	<4	<10	<2	<1	<1	<10	<1	<2	<2
WR-219A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-219A	3/25/13	<1	0.5	<1	2.2	<2	1.4	3.1	<2	7.9	<1	8.9	3.2	NA	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-219A	3/28/12	0.51	0.51	5.68	129	49	25.8	40.9	<5	5.66	<2.5	18.5	10.3	NA	6.26	185	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-219A	3/22/11	0.96	0.96	18.5	439	151	47.5	97.6	<5	20.1	<2.5	74.9	11.4	NA	12.8	215	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-219A	3/17/10	<0.5	0.3	3.5	67	35	20	52	<5	29	<2.5	57	22	NA	38	140	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-219A	4/15/09	1.3	1.3	5.2	49	28	16	24	<5	4.1	<2.5	11	9.1	NA	3.6	87	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-219A	3/19/08	3.8	3.8	4.7	430	50	70	130	<5	13	<2.5	31	15	70	7.7	230	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-219A	3/27/07	7.1	7.1	14	1100	53	49	120	NA	26	NA	52	8.4	NA	6.6	210	NA	NA	NA	NA	NA	NA	<4.0
WR-219A	4/3/06	23	23	97	1500	280	81	190	NA	99	NA	140	15	NA	19	310	NA	NA	NA	NA	NA	NA	<2.0
WR-219A	5/2/05	73	73	800	1800	2700	NA	280	<5.0	570	<2.5	2100	17	<1.5	32	440	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	<2.0
WR-219A	3/25/04	25	25	470	170	1100	13	46	<5.0	100	NA	330	NA	NA	NA	19	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-219A	4/8/03	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-219A	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-219A DUP	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-219A	3/27/00	<1.0	0.5	<1.0	<1.0	<2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5*	<0.5	NA	<1.0	<1.0	<1.0	<1.0
WR-219A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-219A DUP	4/5/99	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	1/26/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-219A	10/15/98	<0.5	0.3	<1.0	<1.0	<1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-219A	7/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<5	<0.5	<0.5	NA
WR-219A	4/30/98	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	<5	<0.5	<0.5	NA
WR-219A	1/27/98	<0.5	0.3	<0.5	<0.5	<1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	10/21/97	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	<0.5	NA	NA
WR-219A	7/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	4/30/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	1/15/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-219A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-219A	7/30/96	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	4/22/96	<0.5	0.3	3.6	1.9	12.5	<0.5	0.8	NA	3.2	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-219A	2/26/96	<0.5	0.3	1.5	<0.5	2.3	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-219A	12/13/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	9/11/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-219A	6/19/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-219A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-219A	12/6/94	<0.5	0.3	<0.5	<0.5	0.8	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	0.8	<0.5	<1.0	NA
WR-219A	9/28/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-219A	6/22/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.05	NA	NA	NA	<1.0	NA	NA
WR-219A	3/25/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-219A	2/23/94	0.8	0.8	1.2	0.5	1.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A DUP	2/23/94	0.8	0.8	1.2	0.5	1.8	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	1/24/94	0.6	0.6	0.7	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	12/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	12/1/93	<0.5	0.3	0.8	<0.5	1.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	10/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-219A	9/28/93	2.3	2.3	4.1	1.1	5.6	<0.5	<0.5	NA	<0.5	<0.5	0.9	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-220A	3/27/12	0.64	0.64	<2	<2	<1	3.2	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A	12/6/11	<0.5	0.3	<2	<2	<1	6.81	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<1	<1.5	NA	<5.0	<1.5	<1	<2
WR-220A	9/14/11	<0.5	0.3	<2	<2	<1	9.37	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<1	<1.5	NA	<5.0	<1.5	<1	<2
WR-220A	5/4/11	13.7	13.7	<2	<2	<1	25.9	<2	<5	<1.5	<2.5	<2.0	4.25	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A	3/22/11	<0.5	0.3	<2	<2	<1	<2.5	<2	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A DUP	3/31/10	43	43	<2	<2	<3	17	<2	<5	<1.5	<2.5	<2.0	2.6	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A	3/31/10	41	41	<2	<2	<3	17	<2	<5	<1.5	<2.5	<2.0	2.6	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2
WR-220A	3/31/09	48	48	<2	<2	<3	32	<2	<5	<1.5	<2.5	<2.0	5.9	NA	2.9	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	<2
WR-220A	3/31/08	2.4	2.4	<0.5	<0.5	9.7	11	<1	<1	<1	<1	8.7	1.5	11	<1	<1	<1	<0.5	<0.5	<2	<0.5	<0.5	3.4
WR-220A	3/27/07	2.8	2.8	<3.0	<2.0	15	18	<2.0	NA	<1.5	NA	2.8	4.4	NA	<2.5	<5.0	NA	NA	NA	NA	NA	NA	<2.0
WR-220A	4/4/06	4.0	4	<3.0	<2.0	<3.0	15	6.4	<5.0	<1.5	<2.5	<2.0	3.6	<1.5	<2.5	<5.0	<0.50	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-220A	4/28/05	4.6	4.6	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-220A	3/25/04	<0.5	0.3	<3.0	<2.0	24	<2.5	<2.0	<5.0	4.2	NA	8.9	NA	NA	NA	<5.0	<0.50	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-220A	4/8/03	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-220A DUP	4/8/03	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-220A	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-220A	4/19/01	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	<0.5	<0.5	NA	NA	NA	NA
WR-220A	3/27/00	<1.0	0.5	<1.0	<1.0	<2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5*	<0.5	NA	<1.0	<1.0	<1.0	<1.0
WR-220A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-220A	4/27/99	<0.5	0.3	<0.5	<0.5	<1	<2.0	<2.0	NA	<2	<2	<2	<2	<2	<2	<2	<5*	<2	NA	<5	<2	<2	NA
WR-220A	1/28/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-220A	10/15/98	8.1	8.1	<1.0	<1.0	<1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-220A	7/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<5	<0.5	<0.5	NA
WR-220A	4/30/98	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	<5	<0.5	<0.5	NA
WR-220A	1/27/98	<0.5	0.3	<0.5	<0.5	<1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	10/21/97	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA
WR-220A	7/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	4/30/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	1/14/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-220A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-220A	7/30/96	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	2.2	<1.0	<0.5	NA
WR-220A	4/22/96	<0.5	0.3	2.8	1.4	8.6	<0.5	<0.5	NA	0.8	<0.5	1.8	<0.5	<0.5	<0.5	0.6	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-220A	2/27/96	<0.5	0.3	1.4	<0.5	1.9	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-220A	12/13/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	9/11/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	6/19/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-220A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-220A	12/7/94	<0.5	0.3	<0.5	<0.5	0.8	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	0.6	<0.5	<1.0	NA
WR-220A	9/28/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-220A	6/23/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	3/24/94	1.2	1.2	1.6	0.7	1.3	<0.5	<0.5	NA	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-220A	2/24/94	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A DUP	2/24/94	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-220A	1/24/94	3.6	3.6	4.1	1.9	5	<0.5	<0.5	NA	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	0.5	NA	NA	NA	NA	<1.0	NA	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-220A DUP	1/24/94	3.7	3.7	4.1	1.9	5	<0.5	<0.5	NA	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	12/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	12/1/93	<0.5	0.3	0.6	<0.5	1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	10/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-220A	9/28/93	1.7	1.7	2.5	0.7	3.5	<0.5	<0.5	NA	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-220A	8/17/93	0.8	0.8	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
	WR-220A was not sampled after 2012 due to free product.																						
WR-221A	3/25/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	<1
WR-221A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	<1
WR-221A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	<1
WR-221A	9/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-221A	3/25/13	<1	0.5	<2	<2	<3	<1	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	<5
WR-221A	3/27/12	<0.5	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A	3/22/11	<0.5	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A	3/30/10	<0.5	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A	3/23/09	1.7	1.7	<2.0	<2.0	44	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A DUP	3/23/09	1.7	1.7	<2.0	<2.0	42	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-221A	3/24/08	4.9	4.9	<3	<2	60	3.5	<2	<5	5.2	<2.5	58	<1.5	3.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-221A	3/19/07	1.1	1.1	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-221A	3/23/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-221A	4/28/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-221A DUP	4/28/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-221A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-221A	1/26/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10	<2	<2	NA
WR-221A	1/27/98	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	7/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	4/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.8	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	1/14/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	7/30/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	4/23/96	<0.5	0.3	0.9	0.5	3.4	<0.5	<0.5	NA	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	2/27/96	<0.5	0.3	2.3	0.7	3.8	<0.5	<0.5	NA	0.5	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-221A	9/11/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	6/19/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-221A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-221A	12/7/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	0.7	<0.5	<1.0	NA
WR-221A	9/28/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-221A	6/23/94	0.9	0.9	1.6	0.8	2.8	<0.5	<0.5	NA	<0.5	<0.5	1	<0.5	<0.5	<0.5	0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	3/24/94	0.6	0.6	1.1	0.6	2	<0.5	<0.5	NA	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-221A	2/23/94	0.5	0.5	0.7	<0.5	1.1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	1/24/94	1	1	1.3	0.6	1.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	12/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	12/1/93	<0.5	0.3	0.8	<0.5	1.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	10/28/93	<0.5	0.3	0.7	<0.5	1.1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	10/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-221A	9/29/93	0.7	0.7	3.3	0.9	4.7	<0.5	<0.5	NA	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-221A	8/18/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	3/25/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-222A	3/24/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-222A	3/24/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-222A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-222A	3/21/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-222A	3/27/12	<0.5	0.3	<2.0	<2.0	<1.0	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-222A	3/22/11	<0.5	0.3	<2.0	<2.0	<1.0	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-222A	3/16/10	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-222A	4/14/09	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-222A	3/19/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-222A	3/21/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-222A	3/27/06	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<0.5	<0.5	<0.5	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	<2.0
WR-222A	4/13/05	<0.5	0.3	<3.0	<2.0	<3.0	13	9.9	<5.0	<1.5	NA	<2.0	1.6	<1.5	<2.5	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	<2.0
WR-222A	3/29/04	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-222A DUP	3/29/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-222A	4/10/03	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-222A DUP	4/10/03	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-222A	3/19/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	N	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-222A	4/18/01	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	<1.0	NA	NA	NA	NA	NA	<0.5	<0.5	NA	NA	NA	NA
WR-222A	3/27/00	<1.0	0.5	<1.0	<1.0	<2.0	<1.0	<1.0	NA	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<0.5*	<0.5	NA	<1.0	<1.0	<1.0	<1.0
WR-222A	7/19/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-222A	4/7/99	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<5	<0.5	<0.5	NA
WR-222A	1/27/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-222A	10/16/98	<0.5	0.3	<1.0	<1.0	<1.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-222A	7/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<5	<0.5	<0.5	NA
WR-222A	4/30/98	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	1/28/98	<0.5	0.3	<0.5	<0.5	<0.5	<1	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	10/21/97	<0.5	0.3	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA
WR-222A	7/30/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	4/29/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	1/15/97	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	10/29/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	7/31/96	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	4/23/96	<0.5	0.3	<0.5	<0.5	<1.3	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	2/27/96	<0.5	0.3	0.8	<0.5	1.4	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<1.0	<0.5	<0.5	NA
WR-222A	12/14/95	0.6	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	9/11/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	6/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-222A	3/15/95	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-222A	12/8/94	<0.5	0.3	<0.5	<0.5	0.7	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-222A	9/29/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	NA	NA	NA
WR-222A	6/23/94	0.5	0.5	0.6	<0.5	1.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A DUP	6/23/94	0.6	0.6	0.6	<0.5	1.3	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	3/23/94	0.6	0.6	1	<0.5	1.4	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-222A DUP	3/23/94	0.6	0.6	0.9	<0.5	1.3	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-222A DUP	2/24/94	<0.5	0.3	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	1/24/94	2.3	2.3	2.5	1.7	4.7	<0.5	<0.5	NA	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	12/28/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	11/30/93	0.9	0.9	1	<0.5	1.4	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	10/25/93	1.2	1.2	0.9	<0.5	1.1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A DUP	10/25/93	1.2	1.2	1.2	<0.5	1.2	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-222A	9/27/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-222A	8/18/93	<0.5	0.3	<0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-223A	3/24/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	121
WR-223A	3/21/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	61.9
WR-223A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-223A	3/25/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-223A	3/28/12	<0.50	0.3	<2	<2.0	<1.0	<2.5	<2.0	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-223A	3/22/11	<0.50	0.3	<2	<2.0	<1.0	<2.5	<2.0	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-223A	4/5/10	<0.50	0.3	<2	<2.0	<3.0	<2.5	<2.0	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	22
WR-223A	4/1/09	<0.50	0.3	<2	<2.0	<3.0	<2.5	<2.0	<5	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	6.8
WR-223A	4/2/08	1.1	1.1	<3	6.6	12	<2.5	2.1	<5	2	<2.5	5	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	4.9
WR-223A	3/29/07	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	NA	<1.5	NA	<2.0	<1.5	NA	<2.5	<5.0	NA	NA	NA	NA	NA	NA	3
WR-223A	4/13/06	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<0.5	<0.5	<0.5	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	2.9
WR-223A DUP	4/13/06	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<0.5	<0.5	<0.5	<5.0	<0.5	<1.5	<0.5	<3.0	<1.5	<0.5	3.1
WR-223A	4/28/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.3

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-223A	7/20/99	<1.0	0.5	<1.0	<1.0	<2.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-223A	1/28/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-223A DUP	1/28/99	<2	1	<2	<2	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
WR-223A	1/28/98	<2.5	1.5	<2.5	3.9	<5	2.7	<2.5	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	3.3	NA	<2.5	<2.5	<2.5	NA
WR-223A	7/30/97	<0.5	0.3	<0.5	140	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	46	<0.5	<0.5	NA
WR-223A	4/30/97	<0.5	0.3	<0.5	<0.5	<1.0	8.9	19	NA	3.3	<0.5	3.2	1.4	<0.5	1.4	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-223A	1/14/97	<2.5	1.5	<2.5	100	<5.0	3.1	<2.5	NA	5	<2.5	2.8	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<5.0	<2.5	<2.5	NA
WR-223A	10/29/96	<0.5	0.3	<0.5	120	91	6	14	NA	4.2	<0.5	3	0.8	<0.5	<0.5	<0.5	<0.5*	2.6	NA	<1.0	<0.5	<0.5	NA
WR-223A	7/31/96	<2.5	1.5	<2.5	84	<5.0	<2.5	3.8	NA	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<5.0	<2.5	NA
WR-223A	4/25/96	2.8	2.8	<1.0	40	10.9	1.9	3.9	NA	1.5	<1.0	1.9	<1.0	<1.0	<1.0	3.8	<1.0*	<1.0	NA	<120*	<1.0	<1.0	NA
WR-223A	2/29/96	21	21	1.2	66	15.5	3.4	7.1	NA	2.8	<1.0	2.5	<1.0	<1.0	<1.0	6.1	<1.0*	2.4	NA	4.4	<1.0	<1.0	NA
WR-223A	12/15/95	210	210	<1.25	110	59	4.9	11	NA	7.6	<1.25	7.7	<1.25	<1.25	<1.25	4.6	<1.25*	<1.25	NA	<1.25	<1.25	<1.25	NA
WR-223A	9/15/95	80	80	4.2	21	7.3	<2.5	<2.5	NA	<2.5	<2.5	6.6	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<2.5	<2.5	NA
WR-223A DUP	9/15/95	84	84	5.7	23	10	<2.5	<2.5	NA	2.7	<2.5	8.8	<2.5	<2.5	<2.5	<2.5	<2.5*	<2.5	NA	<2.5	<2.5	<2.5	NA
WR-223A	6/19/95	340	340	<10	71	36	<10	<10	NA	<10	<10	<10	<10	<10	<10	<10	NA	<10*	NA	<10*	<10	<10	NA
WR-223A	3/16/95	92	92	<0.5	10	<0.5	0.6	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<0.5	<0.5	<1.0	NA
WR-223A	12/12/94	390	390	<10	67	99	<10	13	NA	16	<10	24	<10	<10	<10	17	<20*	<10*	NA	<10*	<10	<20	NA
WR-223A	10/3/94	380	380	6	45	94	<5.0	<5.0	NA	9.5	<5.0	10	<5.0	<5.0	<5.0	6.7	NA	NA	NA	NA	<5.0	NA	NA
WR-223A	6/27/94	250	250	3.2	27	80	1.5	2.9	NA	8.1	<5.0	8.8	<5.0	<5.0	2.7	6.3	NA	NA	NA	NA	<10	NA	NA
WR-223A	3/30/94	290	290	<2.5	69	120	<2.5	5.2	NA	13	<2.5	10	<2.5	<2.5	7.4	6.8	<5.0*	<2.5	NA	<10.0*	<5.0	<5.0	NA
WR-223A	3/30/94	290	290	<2.5	69	120	<2.5	5.2	NA	13	NA	10	NA	NA	7.4	6.8	NA	NA	NA	NA	NA	NA	NA
WR-223A	12/31/93	260	260	<5.0	60	120	1.4	4.4	NA	9.6	<5.0	10	<5.0	<5.0	3.2	6.6	NA	NA	NA	NA	<10	NA	NA
WR-223A	9/28/93	130	130	8.3	44	90	1.2	3.3	NA	7.8	<0.5	8.4	<0.5	<0.5	2.8	6.8	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-223A	8/19/93	140	140	<5.0	27	67	<5.0	<5.0	NA	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	NA	NA	NA	NA	<10	NA	NA
WR-224A	3/18/15	<1	0.5	<1	11.2	2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-224A	3/19/14	<2	1	<2	18.2	4.8	5.4	19.8	<4	8.3	<4	12.7	8.4	<4	12.5	<10	<2	<1	<1	<10	<1	<2	<2
WR-224A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-224A	3/28/13	<1	0.5	<1	28	7.6	5.3	16	<2	5.8	<1	<1	9.3	<1	<1	7.6	<1	<1	<1	<2	<1	<1	<1
WR-224A	4/2/12	<0.5	0.3	<2	34.5	8.06	8.8	22.7	<5	3.4	<2.5	6.22	15.2	NA	6.83	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-224A	3/28/11	<0.5	0.3	<2	84.2	19.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-224A	3/25/10	1.9	1.9	2.2	440	760	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-224A	3/25/09	<25	13	<100	1400	3800	190	710	<250	1200	<130	3000	130	NA	290	350	<25	<75	<25	<150	<75	<25	<100
WR-224A	4/2/08	53	53	15	120	190	12	25	<5	20	<2.5	52	2.5	12	<2.5	21	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-224A	3/28/07	530	530	190	1400	6000	93	260	NA	600	NA	1700	30	NA	53	430	NA	NA	NA	NA	NA	NA	<2.0
WR-224A	4/13/06	800	800	4800	1100	7800	66	<5.0	<5.0	590	<5.0	2200	16	<5.0	34	260	<5.0	<5.0	<0.5	<2.0	<10	<1.0	<10
WR-224A	4/12/05	560	560	480	620	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20
WR-224A	3/26/04	<0.50	0.3	<3.0	170	32	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-224A	4/8/03	14	14	<20	250	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-224A DUP	4/8/03	14	14	<20	260	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-224A	3/14/02	46	46	<20	490	360	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-224A	4/19/01	21	21	13	1000	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-224A	1/28/99	<200	100	2200	2700	8900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<200*	NA	<5,000*	<200*	<200	NA
WR-224A	7/30/97	44000	44000	<0.5	48000	51000	15000	56000	NA	100000	<0.5	11000	<0.5	2700	<0.5	39000	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-224A	5/1/97	6.6	6.6	<0.5	14	<1.0	20	30	NA	11	<0.5	22	6.6	<0.5	<0.5	61	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-224A	1/16/97	83	83	<5.0	27	<10	120	<5.0	NA	130	<5.0	320	7.7	<5.0	5.1	110	<5.0*	<5.0	NA	<10*	<5.0	<5.0	NA
WR-224A	10/31/96	260	260	<25	<25	<50	<25	43	NA	74	<25	130	<25	<25	<25	130	<25*	<25*	NA	56	<25	<25	NA
WR-224A	8/2/96	380	380	<13	<13	<26	15	24	NA	15	<13	49	<13	<13	<13	300	<13*	<13*	NA	<25*	<13	<13	NA
WR-224A	4/24/96	720	720	<12	18	390	43	51	NA	130	<12	190	<12	<12	<12	280	<12*	<12*	NA	<25*	<12	<12	NA
WR-224A	2/29/96	570	570	15	<12	420	40	49	NA	110	<12	170	<12	<12	<12	270	<12*	<12*	NA	57	<12	<12	NA
WR-224A	12/12/95	400	400	33	<10	960	41	61	NA	180	<10	380	<10	<10	<10	330	<10*	<10*	NA	<10*	<10	<10	NA
WR-224A	9/13/95	290	290	30	33	740	49	77	NA	180	<10	450	<10	<10	<10	310	<10*	<10*	NA	<10*	<10	<10	NA
WR-224A	6/19/95	310	310	75	130	1200	41	93	NA	200	<125	630	<125	<125	<125	280	<125*	<125*	NA	<125*	<125*	<125	NA
WR-224A	3/17/95	490	490	270	140	1500	44	65	NA	150	<10	480	<10	<10	74	210	<20*	<10*	NA	<10*	<10	<20	NA
WR-224A	12/12/94	560	560	31	22	620	19	29	NA	48	<10	160	<10	<10	34	140	<20*	<10*	NA	<10*	<10	<20	NA
WR-224A	10/4/94	550	550	52	44	1000	15	25	NA	99	<5.0	250	<5.0	<5.0	38	110	NA	NA	NA	NA	NA	NA	NA
WR-224A	6/28/94	320	320	94	140	840	21	41	NA	120	<0.5	290	4.3	1.5	51	150	NA	NA	NA	NA	<0.5	NA	NA
WR-224A	3/30/94	440	440	96	480	1600	<25.0	42	NA	100	<25.0	300	<25.0	<25.0	62	120	<50.0*	<25.0*	NA	<100.0*	<50.0	<50.0	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-224A DUP	3/30/94	430	430	89	480	1700	<25.0	47	NA	110	<25.0	260	<25.0	<25.0	62	130	<50.0*	<25.0*	NA	<100.0*	<50.0	<50.0	NA
WR-224A	1/4/94	320	320	230	330	1100	12	30	NA	73	<0.5	180	1.2	2.6	27	93	NA	NA	NA	NA	<1.0	NA	NA
WR-224A DUP	1/4/94	290	290	210	290	990	11	32	NA	77	<0.5	160	1.3	0.6	28	97	NA	NA	NA	NA	<1.0	NA	NA
WR-224A	9/28/93	210	210	480	510	2000	24	83	NA	170	<1.0	360	4.5	2	97	83	<2.0*	<1.0	NA	<4.0	<2.0	<2.0	NA
WR-224A	8/19/93	110	110	97	320	1100	<10.0	23	NA	61	<10.0	210	<10.0	<10.0	41	39	NA	NA	NA	NA	<20	NA	NA
WR-225A	3/24/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-225A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-225A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-225A	3/27/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-225A	3/22/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-225A	3/24/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-225A	3/25/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-225A	3/26/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-225A	3/22/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-225A	3/28/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-225A	4/14/05	<0.5	0.3	8.3	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-225A	12/7/94	<0.5	0.3	<0.5	<0.5	<0.5	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	0.7 a	<0.5	<1.0	NA
WR-225A	9/27/94	<0.5	0.3	<0.5	<0.5	0.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<0.5	NA	NA
WR-225A	6/23/94	1.3	1.3	1.9	1	3.8	<0.5	<0.5	NA	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	0.6	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	3/24/94	0.8	0.8	1.3	0.5	1.7	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-225A DUP	3/24/94	0.8	0.8	1.4	<0.5	1.6	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-225A	2/25/94	<0.5	0.3	0.5	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A DUP	2/25/94	<0.5	0.3	0.6	<0.5	<1.0	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	1/27/94	8.3	8.3	7.3	2.8	7.4	<0.5	<0.5	NA	0.5	<0.5	1.4	<0.5	<0.5	<0.5	0.8	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	12/27/93	0.9	0.9	2	0.7	4.4	<0.5	<0.5	NA	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	0.6	NA	NA	NA	NA	<1.0	NA	NA
WR-225A DUP	12/27/93	0.6	0.6	2.1	0.8	4.7	<0.5	<0.5	NA	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	12/1/93	5.5	5.5	4.8	1.1	5.5	<0.5	<0.5	NA	<0.5	<0.5	1.1	<0.5	<0.5	<0.5	0.7	NA	NA	NA	NA	<1.0	NA	NA
WR-225A DUP	12/1/93	4.7	4.7	4.1	0.9	4.9	<0.5	<0.5	NA	<0.5	<0.5	1	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	10/27/93	1.7	1.7	2.6	1	4.3	<0.5	<0.5	NA	<0.5	<0.5	0.7	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-225A DUP	10/27/93	2.4	2.4	3.6	1.4	6	<0.5	<0.5	NA	<0.5	<0.5	1	<0.5	<0.5	<0.5	0.6	NA	NA	NA	NA	<1.0	NA	NA
WR-225A	9/29/93	2.8	2.8	12	5.9	28	<0.5	0.5	NA	1.4	<0.5	3.5	<0.5	<0.5	<0.5	1	<1.0*	<0.5	NA	<2.0	<1.0	<1.0	NA
WR-225A	8/18/93	<0.5	0.3	<0.5	<0.5	1	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	NA	NA	NA	NA	<1.0	NA	NA
WR-227A	3/25/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	38.3
WR-227A	3/24/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	38.5
WR-227A	9/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	NA
WR-227A	3/21/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<1	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	41
WR-227A	3/27/12	<0.50	0.3	<2.0	<2.0	<1	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	37.6
WR-227A	3/22/11	<0.50	0.3	<3.0	<2.0	<1	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	NA	<2.5	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	69.2
WR-227A	4/15/10	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	140
WR-227A	4/16/09	<0.50	0.3	<2.0	4	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130
WR-227A	4/3/07	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	NA	<1.5	NA	<2.0	NA	NA	NA	<5.0	NA	NA	NA	NA	NA	NA	140
WR-227A	5/2/05	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	110
WR-227A DUP	5/2/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	120
WR-227A	3/25/04	1.8	1.8	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	110
WR-227A DUP	3/25/04	1.7	1.7	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	98
WR-227A	4/10/03	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	82
WR-227A	3/20/02	0.58	0.58	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-228A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-228A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-228A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-228A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	3/17/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	4/14/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-228A	3/18/08	<0.5	0.3	<3	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-228A	3/20/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-228A	4/14/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-228A	3/26/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-229A	3/26/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-229A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-229A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-229A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-229A	4/2/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-229A	3/28/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-229A	3/17/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-229A	4/13/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-229A	3/25/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-229A	3/21/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-229A	4/14/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-229A	3/26/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-230A	3/24/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-230A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-230A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-230A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-230A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-230A	3/22/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-230A	3/29/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-230A	4/8/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/25/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-231A	3/24/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-231A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-231A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/26/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/23/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A DUP	3/23/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/24/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-231A	3/26/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-231A	3/22/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-231A	5/12/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-232A	3/23/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-232A	3/25/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-232A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-232A	3/22/12	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-232A	3/28/11	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-232A	3/25/10	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-232A	3/26/09	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-232A	4/1/08	<0.5	0.3	<0.5	<0.5	<1.5	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<0.5	<0.5	<2	<0.5	<0.5	<2
WR-232A	3/15/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-232A	5/13/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-232A DUP	5/13/05	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-233A	3/25/15	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-233A	3/24/14	<1	0.5	<1	<1	<2	<1	<2	<2	<2	<2	<2	<2	<2	<2	<5	<1	<0.5	<0.5	<5	<0.5	<1	<1
WR-233A	9/12/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
WR-233A	3/28/13	<1	0.5	<1	<1	<2	<1	<1	<2	<1	<1	<2	<1	<1	<1	<5	<1	<1	<1	<2	<1	<1	<1
WR-233A	3/27/12	<0.5	0.3	<2.0	<2	<1	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-233A	3/22/11	<0.5	0.3	<2.0	<2	<1	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2
WR-233A	3/16/10	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	NA	<3	<1.5	<0.5	<2

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-233A	4/15/09	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-233A DUP	4/15/09	<0.5	0.3	<2.0	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	NA	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-233A	3/19/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-233A	3/22/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
WR-233A	4/13/05	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	NA	<2.0
WR-233A	3/25/04	<0.50	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	<2.0
WR-233A	4/8/03	<0.5	0.3	<3.0	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	<2.5	<2.0	<1.5	<1.5	<2.5	<5.0	NA	<1.0	<0.5	<3.0	<1.5	<0.5	<2.0
WR-233A	3/20/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-233A DUP	3/20/02	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-235A	3/25/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-235A	3/24/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
WR-235A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
WR-235A	3/29/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-235A	3/29/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-235A	3/23/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-235A	3/25/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
WR-235A	3/27/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
WR-235A	3/26/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
WR-295A INJ-1S	7/21/99	2700	2700	<10	81	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-295A INJ-1S	4/14/99	1219	1219	54.8	<0.5	645	27	15.4	NA	273	N 0.5	200	13.6	7.6	46.9	42.2	1.2	N 0.5	NA	N 0.5	N 0.5	5.5	NA
WR-295A INJ-1S	4/8/99	2188	2188	149	<0.5	1070	36.5	33.8	NA	263	N 0.5	523	17.8	9.6	65.8	173	2	N 0.5	NA	N 0.5	N 0.5	3.1	NA
WR-295A INJ-1S	1/27/99	1600	1600	77	<2	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	40	NA	<10*	<2	<2	NA
WR-295A INJ-1S	10/14/98	890	890	110	<50	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-295A INJ-1S	1/29/98	1600	1600	600	890	1080	<125	<125	NA	150	<125	550	<125	<125	<125	<125	<125*	280	NA	<125*	<125*	<125	NA
WR-295A INJ-1S	4/26/96	11000	11000	4400	1700	3300	<250	<250	NA	<250	<250	670	<250	<250	<250	460	<250*	<250*	NA	<250*	<250*	NA	NA
WR-296A	3/24/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4350
WR-296A	3/20/14	<50	25	<50	<50	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3810
WR-296A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3000
WR-296A INJ-2S	7/21/99	1300	1300	<10	75	1400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-296A INJ-2S	5/24/99	1100	1100	240	<0.5	2090	64	100	NA	520	N 20	1500	23	N 20	N 20	260	N 20*	N 20*	NA	N 50*	N 20	N 20	NA
WR-296A INJ-2S	4/14/99	317	317	39.8	<0.5	1375	90	136	NA	579	N 0.5	1087	52	16.2	134	198	0.6	N 0.5	NA	N 0.5	N 0.5	N 0.5	NA
WR-296A INJ-2S	1/26/99	1900	1900	100	3.9	2500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	96	NA	<10*	<2	<2	NA
WR-296A INJ-2S	10/14/98	740	740	580	<50	3700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-296A INJ-2S	1/29/98	5400	5400	2500	1100	2860	<250	<250	NA	270	<250	810	<250	<250	<250	<250	<250*	<250*	NA	<250*	<250*	<250	NA
WR-296A INJ-2S	4/26/96	14000	14000	6400	2000	3000	<250	<250	NA	300	<250	940	<250	<250	<250	600	<250*	<250*	NA	<250*	<250*	NA	NA
WR-297A	3/29/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7860
WR-297A INJ-3	7/19/99	170	170	<2	14	120	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	4/14/99	2.2	2.2	<0.5	<0.5	4.4	<0.5	<0.5	NA	7.2	N 0.5	2	<0.5	<0.5	4.2	5	<0.5*	35.6	NA	N 0.5	N 0.5	N 0.5	NA
WR-297A INJ-3	1/27/99	33	33	<2	<2	56	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17	NA	<10*	<2	<2	NA
WR-297A INJ-3	10/14/98	97	97	26	<5	260	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	1/29/98	340	340	1000	500	2950	<125	200	NA	510	<125	1900	<125	<125	<125	480	<125*	<125*	NA	180	<125*	<125	NA
WR-297A INJ-3	7/31/97	3600	3600	2200	430	2300	<0.5	<0.5	NA	450	<0.5	640	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-297A INJ-3	5/2/97	4200	4200	5600	810	5300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	230	NA	NA
WR-297A INJ-3	1/17/97	4400	4400	3900	520	3100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	10/30/96	4400	4400	3700	350	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	8/2/96	6700	6700	6800	460	4100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-297A INJ-3	4/26/96	6000	6000	1600	2600	13000	480	640	NA	1100	<120	2900	<120	<120	<120	3100	<120*	<120*	NA	<120*	<120*	NA	NA
WR-298A	3/24/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4900
WR-298A	3/20/14	<50	25	<50	<50	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4590
WR-298A	3/21/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7100
WR-298A INJ-4	7/20/99	420	420	7.6	10	57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	5/24/99	790	790	15	N 5	<105	N 20	N 20	NA	22	N 20	73	N 20	N 20	N 20	76	N 20*	N 20*	NA	N 50*	N 20	N 20	NA
WR-298A INJ-4 DUP	5/24/99	800	800	15	N 5	<105	N 20	N 20	NA	22	N 20	72	N 20	N 20	N 20	71	N 20*	N 20*	NA	51	N 20	N 20	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
WR-298A INJ-4	1/27/99	370	370	9.4	<2	94	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	100	NA	<10*	<2	<2	NA
WR-298A INJ-4	10/14/98	140	140	18	<2.5	110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	1/29/98	2400	2400	<125	<125	640	<125	<125	NA	<125	<125	130	<125	<125	<125	<125	<125*	<125*	NA	300	<125*	<125	NA
WR-298A INJ-4	10/22/97	11000	11000	5700	320	4300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<50	NA	NA
WR-298A INJ-4	7/31/97	20000	20000	19000	1400	5700	<0.5	<0.5	NA	920	<0.5	1200	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
WR-298A INJ-4	5/2/97	18000	18000	16000	790	4900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	NA	NA
WR-298A INJ-4	1/17/97	15000	15000	15000	1200	6500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	10/30/96	13000	13000	15000	1300	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	8/2/96	5700	5700	6000	530	2700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-298A INJ-4	4/26/96	6500	6500	4100	16200	13000	270	600	NA	1000	<120	2700	<120	<120	<120	1900	<120*	<120*	NA	<120*	<120*	NA	NA
R-012A	3/19/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5890
R-012A	3/26/14	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7390
R-012A	3/26/14	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7090
R-012A	4/23/13	<2	1	<2	<2	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8600
R-012A	3/21/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11800
R-012A	3/21/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12200
R-012A	3/21/11	<25	12.5	<100	<100	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14700
R-012A	4/14/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12000
R-012A	4/1/08	<100	50	<100	<100	<300	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<200	<100	<100	<400	<100	<100	14000
R-012A	3/27/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	17000
R-012A	4/4/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-012A	12/28/04	<0.5	0.25	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7500
R-012A	5/18/04	<50	25	<300	<200	<300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19000
R-012A	4/18/01	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-012A	7/20/99	120	120	8.5	26	230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-012A	1/27/99	49	49	53	<2	49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
R-012A	10/14/98	93	93	22	<2.5	86	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-012A	1/29/98	680	680	190	290	360	<63	<63	NA	<63	<63	90	<63	<63	<63	<63	<63*	<63*	NA	<63*	<63	<63	NA
	R-012A was not sampled 2009 due to free product.																						
R-013A	3/20/15	2.4	2.4	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	217
R-013A	3/20/15	2.3	2.3	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	202
R-013A	3/26/14	3.4	3.4	<1	<1	8.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	132
R-013A	4/23/13	25	25	<20	20	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400
R-013A	4/23/13	28	28	<20	23	170	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1500
R-013A	3/21/11	249	249	<20	40.5	159	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2650
R-013A	4/13/10	420	420	120	60	2600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5800
R-013A	4/8/09	450	450	3	43	400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4700
R-013A	4/5/07	1500	1500	25	320	3400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4900
R-013A	4/11/06	240	240	<3.0	<2.0	28	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	900
R-013A - 0858	5/4/05	980	**	<3.0	24	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2600
R-013A - 1306	5/4/05	280	280	<30	62	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300
R-013A DUP	5/4/05	850	**	<30	22	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1300
R-013A DUP	5/4/05	280	280	<30	90	920	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2400
R-013A	7/20/99	640	640	160	1200	2100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-013A	1/27/99	390	390	110	8	290	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16	NA	<10*	<2	<2	NA
R-013A	10/14/98	570	570	30	<0.5	570	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-013A	1/29/98	2500	2500	2800	520	1920	<200	<200	NA	<200	<200	680	<200	<200	<200	<200	<200*	<200*	NA	<200*	<200*	<200	NA
	R-013A was not sampled in 2008 and 2012 due to free product.																						
R-016A	3/19/15	<2.5	1.25	<2.5	<2.5	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	799
R-016A	3/24/14	<25	12.5	<25	<25	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1610
R-016A	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2600
R-016A	3/22/12	<0.5	0.25	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5770
R-016A	3/21/11	<25	12.5	<100	<100	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7830
R-016A	4/12/10	2.5	2.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8100
R-016A	4/8/09	1.2	1.2	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11000

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
R-016A	4/10/08	9.6	9.6	17	29	140	<2.5	5	<5	12	<2.5	42	<1.5	<2.5	<2.5	12	<0.5	<1.5	<0.5	<3	<1.5	<0.5	8600
R-016A	4/5/07	2	2	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8300
R-016A	4/5/06	18	18	<30	<20	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9500
R-016A	5/4/05	350	350	<150	<100	<150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8000
R-016A	12/28/04	270	270	160	88	2400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12000
R-016A	3/31/04	1100	1100	5.5	<2.0	12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13000
R-016A	4/15/03	1400	1400	<20	<20	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	3/21/02	700	700	<2.0	3.4	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	4/17/01	730	730	2.8	<2.0	21	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	7/20/99	91	91	8.8	9.2	34	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	1/26/99	100	100	11	<2	57	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
R-016A	10/13/98	140	140	21	<10	89	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-016A	1/29/98	260	260	560	230	760	<50	54	NA	88	<50	300	<50	<50	<50	<50	<50*	<50*	NA	<50*	<50	<50	NA
R-017A	3/20/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	53.7
R-017A	3/26/14	<5	2.5	<5	<5	386	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	153
R-017A	3/21/11	324	324	53.5	250	4750	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8330
R-017A	4/14/10	290	290	260	260	4500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6200
R-017A	7/20/99	450	450	34	110	310	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-017A	1/27/99	140	140	180	16	160	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
R-017A	10/13/98	760	760	98	14	470	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-017A	1/29/98	980	980	320	95	227	<63	<63	NA	<63	<63	66	<63	<63	<63	<63	<63*	<63*	NA	<63*	<63	<63	NA
	R-017A was not sampled between years 1999 - 2010, and after 2011 due to free product.																						
R-018A	3/20/15	139	139	30.5	475	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8320
R-018A	3/27/14	438	438	1190	935	11700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11800
R-018A	4/24/13	1700	1700	2600	1600	14000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13000
R-018A	3/28/11	2330	2330	1320	1790	12800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9550
R-018A	4/11/06	1,000	1000	2300	630	6800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5000
R-018A	5/3/05	2400	2400	4800	1200	13000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6000
R-018A	7/20/99	480	480	32	810	7300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-018A	1/28/99	900	900	2100	<200	8700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<200*	NA	<1,000*	<200*	<200	NA
R-018A	10/15/98	3500	3500	7800	1600	13000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-018A was not sampled between years 1999 - 2005 and between 2006 - 2011, and after 2011 due to free product.																						
R-019A	3/20/15	18.5	18.5	3.5	293	93.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1030
R-019A	3/26/14	122	122	77.2	603	2070	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	777
R-019A	1/28/99	2100	2100	11000	9000	9300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1,000*	NA	<5,000*	<4,000*	<4000	NA
R-019A	10/13/98	4700	4700	22000	6700	32000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-019A was not sampled between years 1999 -2014 due to free product.																						
R-020A	3/20/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2490
R-020A	3/26/14	33.4	33.4	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6140
R-020A	9/12/13	82.3	82.3	<100	<100	<200	<100	<200	<200	<200	<200	<200	<200	<200	<200	<500	<100	<50	<50	<500	<50	<100	7270
R-020A	9/11/13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.019	NA	NA	NA	NA	NA	NA
R-020A	3/26/13	72	72	<4	18	<6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7000
R-020A	3/21/12	1940	1940	<100	529	736	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10000
R-020A	3/21/11	644	644	<40	163	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6500
R-020A	4/8/10	740	740	59	200	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6700
R-020A	4/9/09	1400	1400	48	110	410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7600
R-020A - 1008	5/4/05	7.1	**	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	77
R-020A - 1327	5/4/05	45	45	6.2	<2.0	15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1100
R-020A	12/28/04	370	370	<30	<20	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2200
R-020A	3/29/04	1000	1000	37	7.2	500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.8	NA	NA	NA	NA	NA	12000
R-020A	4/14/03	4300	4300	28	<10	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.7	NA	NA	NA	NA	NA	10000
R-020A	3/20/02	4300	4300	460	33	1400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5800	NA	NA	NA	NA	NA	8000
R-020A	4/17/01	3400	3400	100	<20	980	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-020A	2/23/00	2800	2800	490	23	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20	NA	NA	NA	NA	NA	11000

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
R-020A	7/20/99	1600	1600	46	810	1500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-020A	1/26/99	370	370	280	9.3	870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8.7	NA	<10*	<2	<2	NA
R-020A	10/14/98	440	440	500	38	1300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-020A	1/29/98	3800	3800	6400	1000	3900	<625	<625	NA	<625	<625	700	<625	<625	<625	<625	<625*	<625*	NA	<625*	<625*	<625	NA
	R-020A was not sampled between years 2005 - 2009 due to free product.																						
R-021A	3/19/15	<5	2.5	<5	<5	<10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2230
R-021A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3460
R-021A	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1400
R-021A	12/17/12	3.6	3.6	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7400
R-021A	3/22/12	<50	25	<200	<200	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10200
R-021A	12/6/11	<50	25	<200	<200	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5400
R-021A	9/14/11	<2.5	1.3	<10	<10	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1420
R-021A DUP	9/14/11	<2.5	1.3	<10	<10	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2330
R-021A	3/29/11	28.9	28.9	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7670
R-021A	4/6/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	430
R-021A DUP	4/6/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	410
R-021A	4/6/09	0.5	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	410
R-021A DUP	4/6/09	0.5	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	410
R-021A	4/7/08	0.77	0.77	<0.5	4.3	4.4	1.3	3.7	<1	2.2	<1	5	<1	1.3	<1	1.2	<1	<0.5	<0.5	<2	<0.5	<0.5	290
R-021A	4/3/07	0.69	0.69	<3.0	25	38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500
R-021A DUP	4/3/07	0.64	0.64	<3.0	26	39	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	500
R-021A	8/18/06	0.71	0.71	<3.0	30	60	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	460
R-021A	5/3/05	86	86	320	570	2200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3600
R-021A DUP	5/3/05	86	86	310	600	2300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3600
R-021A	12/28/04	330	330	49	480	880	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	10000
R-021A	5/17/04	460	460	3700	750	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2700
R-021A	7/19/99	1000	1000	<20	100	540	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-021A	1/27/99	1100	1100	<100	<100	1700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100*	NA	<500*	<100*	<100	NA
R-021A	10/15/98	2100	2100	3800	190	6100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-021A	1/29/98	510	510	650	98	810	<63	<63	NA	110	<63	460	<63	<63	<63	<63	<63*	<63*	NA	<63*	<63	<63	NA
R-022A	3/19/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-022A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-022A	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-022A	3/21/12	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/29/11	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/29/10	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/30/09	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/14/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A DUP	3/14/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/21/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	4/11/05	<0.5	0.3	5.9	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A	3/22/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-022A DUP	3/22/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	<2.0
R-022A	4/14/03	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	<2.0
R-022A	3/20/02	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	<2.0
R-022A	4/17/01	27	27	5.5	<0.10	43	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-022A	2/23/00	<0.5	0.3	<0.5	<0.5	3.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	NA	NA	<5.0
R-022A	7/20/99	5	5	5.1	5.1	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-022A	1/26/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	NA	<10*	<2	<2	NA
R-022A	10/13/98	0.89	0.89	<1.0	<1.0	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-022A	1/29/98	1.9	1.9	1.1	<0.5	2.7	<0.5	<0.5	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5*	<0.5	NA	<0.5	<0.5	<0.5	NA
	R-022A was not sampled in 2008 due to free product.																						
R-028A	3/25/08	8.5	8.5	93	37	140	<2.5	5.3	<5	13	<2.5	39	<1.5	<2.5	<2.5	12	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
R-028A	3/20/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0
R-028A DUP	3/20/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<3.0

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
R-028A	3/22/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-028A DUP	3/22/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-028A	4/12/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-028A	3/22/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-028A	4/7/03	<2.5	1.5	<15	<10	<15	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	<10
R-028A	3/13/02	<1.0	0.5	<2.0	13	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-028A	4/19/01	3.3	3.3	<2.0	57	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-028A FS-2	7/20/99	8.8	8.8	52	<2	7.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-028A FS-2	1/28/99	150	150	5	110	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2.8	NA	<10*	<2	<2	NA
	R-028A was not sampled after 2008 due to free product.																						
R-029A	3/18/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/18/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/19/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/19/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-029A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-029A	3/29/12	<0.5	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-029A	5/4/11	<0.5	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-029A	3/25/10	<0.5	0.3	<2.0	4.9	8.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-029A	3/26/09	<0.5	0.3	<2.0	9.4	9.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-029A	4/1/08	<0.5	0.3	<0.5	16	18	4.3	8.1	<1	13	<1	25	1.3	4.3	<1	2.4	<1	<0.5	<0.5	<2	<0.5	<0.5	<2
R-029A (DUP)	4/1/08	<0.5	0.3	<0.5	16	18	4.2	8.2	<1	13	<1	25	1.3	4.2	<1	2.5	<1	<0.5	<0.5	<2	<0.5	<0.5	<2
R-029A	3/27/07	0.73	0.73	<3.0	35	140	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-029A	4/6/06	8.1	8.1	8.6	34	1200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
	R-029A was not sampled prior to 2006 and in 2011 due to free product.																						
R-030A	3/24/15	813	813	3240	587	6230	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	124
	R-030A was not sampled prior to 2015 due to free product.																						
R-031A	3/24/15	1290	1290	3060	928	4380	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4650
	R-031A was not sampled prior to 2015 due to free product.																						
R-032A	3/24/15	6.1	6.1	<2.5	10.3	1770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1100
	R-032A was not sampled prior to 2015 due to free product.																						
R-033A	3/18/15	<100	50	<100	<100	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11600
R-033A	3/19/14	<100	50	<100	110	2020	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7140
R-033A	4/9/09	1100	1100	940	510	11000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7600
R-033A DUP	4/9/09	1100	1100	960	500	11000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7900
R-033A	3/13/02	9100	9100	990	910	690	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	300	NA	NA	NA	NA	NA	6600
R-033A	4/18/01	21000	21000	7000	2300	4000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-033A	2/23/00	18000	18000	11000	2900	7300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	27	NA	NA	NA	NA	NA	3700
R-033A FS-7	7/21/99	18000	18000	2500	14000	8200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-033A FS-7	1/27/99	15000	15000	9300	1300	3400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<200*	NA	<1,000*	<200*	<200	NA
R-033A FS-7	8/19/98	16000	16000	5600	2000	3300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-033A was not sampled between years 2002 - 2009 and 2010 - 2014 due to free product.																						
R-034A	3/18/15	<4	2	<4	<4	<8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA	<200*	<40	<40	794
R-034A	3/19/14	200	200	1400	1230	3540	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA	<200*	<40	<40	865
R-034A FS-8	1/28/99	6300	6300	8600	2000	6000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA	<200*	<40	<40	NA
R-034A FS-8	8/19/98	5800	5800	6100	1500	4600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-034A was not sampled between years 1999 to present day due to free product.																						
R-035A	4/9/09	1700	1700	660	600	3800	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	20000
R-035A	5/9/05	3500	3500	4600	1300	5300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21000
R-035A DUP	5/9/05	4700	4700	10000	1900	9900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19000
R-035A	4/8/03	5700	5700	7300	2000	5700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-035A	3/14/02	2800	2800	520	1100	650	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
R-035A	4/19/01	6000	6000	1900	1800	1500	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-035A FS-9	7/21/99	11000	11000	2100	3100	2400	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-035A FS-9	1/28/99	15000	15000	6700	2100	4900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100*	NA	<500*	<100*	<100	NA
R-035A FS-9	8/19/98	13000	13000	7500	1500	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-035A was not sampled between years 2005 - 2009 and after 2010 due to free product.																						
R-036A	3/18/15	<1	0.5	<1	2.6	3.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	420
R-036A	3/19/14	<10	5	<10	15.3	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	667
R-036A	4/24/13	<20	10	<20	51	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	870
R-036A FS-10	1/28/99	4900	4900	1600	780	1000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	130	NA	<50*	<10	<10	NA
R-036A FS-10	8/19/98	3000	3000	1200	810	1600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-036A was not sampled between 1999 and 2013 due to free product.																						
R-037A	3/31/15	<50	25	<50	133	176	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	19400
R-037A	3/29/11	70.2	70.2	55.9	35.4	8870	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4720
R-037A	4/8/03	4900	4900	4100	1000	2700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-037A	3/14/02	2600	2600	430	600	510	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-037A	4/19/01	7600	7600	1000	1000	710	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-037A was not sampled between 2003 - 2011 and between 2011 - 2015 due to free product.																						
R-044A	3/26/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-044A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-044A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-044A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-044A	3/28/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-044A	3/29/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-044A	3/25/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-044A	3/31/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-044A	3/24/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	<2
R-044A	3/20/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<4.0
R-044A	3/22/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A	4/12/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A DUP	4/12/05	<0.5	0.3	3.1	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A	3/22/04	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
R-044A	4/7/03	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	<2.0
R-044A	3/13/02	2.5	2.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	<2.0
R-044A	4/18/01	1.2	1.2	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-044A	2/23/00	<0.5	0.3	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.01	NA	NA	NA	NA	NA	<5.0
R-044A FS-11	7/19/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-044A FS-11	2/18/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-045A	3/26/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-045A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.8
R-045A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-045A	3/28/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.11
R-045A	5/4/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6.87
R-045A	4/5/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9
R-045A	4/1/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14
R-045A	4/3/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	16
R-045A	3/19/07	<1.0	0.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11
R-045A	3/30/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21
R-045A DUP	3/30/06	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	21
R-045A	4/12/05	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16
R-045A	3/24/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14
R-045A DUP	3/24/04	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	14
R-045A	4/7/03	<0.5	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	7.7
R-045A	3/13/02	2.3	2.3	2.7	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	3.3
R-045A	4/18/01	3.8	3.8	<2.0	2.2	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
R-045A	2/23/00	8.1	8.1	<0.5	<0.5	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.02	NA	NA	NA	NA	NA	33
R-045A FS-12	7/19/99	<2	1	<2	<2	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-045A FS-12	2/19/99	3	3	<2	34	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-046A	3/24/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	78.5
R-046A	3/27/14	6.6	6.6	<1	2.8	84.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	71
R-046A	3/25/13	16	16	<20	<20	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	86
R-046A	4/4/06	21	22	6.9	5.5	9.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	55
R-046A DUP	4/4/06	23	24	7.4	5.7	9.6	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	55
R-046A	5/3/05	36	36	3.8	12	11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60
R-046A	3/29/04	130	130	74	32	78	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	190
R-046A DUP	3/29/04	130	130	110	31	75	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	71
R-046A	2/26/04	22	22	3.8	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	55
R-046A DUP	2/26/04	19	19	3.5	<2.0	<3.0	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	56
R-046A	2/26/04	24	24	7.5	2.4	4.9	<2.5	<2.0	<5.0	<1.5	NA	<2.0	NA	NA	NA	<5.0	<0.5	<1.5	NA	<3.0	<1.5	<0.5	47
R-046A	4/10/03	100	100	3.4	6	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	66
R-046A	3/14/02	120	120	<20	23	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	68
R-046D	3/14/02	120	120	<20	23	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.010	NA	NA	NA	NA	NA	69
R-046A	4/18/01	1100	1100	44	120	48	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-046A	2/23/00	320	320	49	71	27	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13	NA	NA	NA	NA	NA	99
R-046A FS-13	7/20/99	370	370	70	110	50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
WR-PSC BD R-046A	7/20/99	390	390	72	79	49	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-046A FS-13	2/18/99	570	570	45	480	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-046A was not sampled between 2006 - 2013 due to free product.																						
R-047A	4/19/01	10000	10000	5200	2700	6700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	R-047A was sampled only in 2006 due to free product being present other times.																						
R-048A	3/18/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2
R-048A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1.5
R-048A	3/28/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-048A	3/29/12	0.56	0.56	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.14
R-048A	5/4/11	0.78	0.78	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	4.81
R-048A	3/31/10	2.3	2.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7.9
R-048A	4/1/09	4.4	4.4	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11
R-048A	4/3/08	16	16	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.5	<1.5	<0.5	<3	<1.5	<0.5	14
R-048A	3/29/07	190	190	7.7	<2.0	99	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	24
R-048A	4/6/06	130	130	11	<2.0	190	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33
R-048A DUP	4/6/06	130	130	12	<2.0	200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	33
R-048A	5/2/05	280	280	16	5.7	340	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	49
R-048A	4/8/03	88	88	9.5	17	63	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.02	NA	NA	NA	NA	NA	260
R-048A	2/23/00	180	180	260	100	320	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	0.13	NA	NA	NA	NA	NA	94
R-048A FS-15	7/21/99	17000	17000	700	1200	900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-048A FS-15	1/28/99	21000	21000	4700	1500	2700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	360	NA	<10*	<50	<10	NA
R-048A FS-15	8/19/98	19000	19000	2700	1900	1900	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
R-049A	3/18/15	<1	0.5	1.5	<1	2.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-049A	3/20/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-049A	3/27/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-049A	3/29/12	1.36	1.36	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-049A	3/29/11	11.5	11.5	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-049A	3/31/10	120	120	<2	2	3.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-049A	3/30/09	660	660	<2	11	16	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
R-049A	4/1/08	640	640	<5	28	90	<10	<10	<10	15	<10	35	<10	<10	<10	<10	<10	<5	<5	<20	<5	<5	<20
R-049A	3/28/07	760	760	24	23	250	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10
R-049A	4/11/06	560	560	580	160	7700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<100
R-049A DUP	4/11/06	590	590	500	140	100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<10
R-049A	5/9/05	990	990	210	120	1100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<20

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
	R-049A was not sampled prior to 2005 due to free product.																						
R-050A	3/18/15	14.3	14.3	7.7	509	963	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28.5
R-050A	3/19/14	24	24	13.7	526	1420	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	28.2
	R-050A was not sampled prior to 2014 due to free product.																						
R-099A	3/18/15	<1	0.5	<1	8.9	3.4	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
R-099A	3/20/14	<5	2.5	<5	17.2	36.5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-099A	3/20/14	<5	2.5	<5	14.5	28.2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
R-099A	3/27/13	2.7	2.7	<2.8	21	130	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.2
	R-099A was not sampled prior to 2013 due to free product.																						
PCM-506A	3/24/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
PCM-506A	3/21/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
PCM-506A	3/25/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
PCM-506A	3/28/12	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/22/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/22/11	<0.5	0.3	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/24/10	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/26/09	<0.5	0.3	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2
PCM-506A	3/27/08	<0.5	0.3	<3	<2	<3	<2.5	<2	<5	<1.5	<2.5	<2	<1.5	<2.5	<2.5	<5	<0.50	<1.5	<0.5	<3	<1.5	<0.5	<2
PCM-506A	3/26/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
PCM-506A	8/18/06	<0.50	0.3	<3.0	<20	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
PCM-508A	3/19/15	<10	5	<10	<10	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,930
PCM-508A	3/19/14	<100	50	<100	<100	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,840
PCM-508A	3/25/13	2.5	2.5	<2	130	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	8,300
PCM-508A	3/28/12	1.55	1.55	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,630
PCM-508A	3/29/11	194	194	<20	152	782	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,670
PCM-508A	4/8/10	420	420	11	670	3000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,700
PCM-508A	4/7/09	710	710	120	340	2000	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,500
PCM-508A	4/9/08	660	660	310	500	3000	25	58	<5	140	<5	510	<5	25	5.2	210	<5	<2.5	<2.5	<10	<2.5	<2.5	6,400
PCM-508A	4/5/07	2100	2100	1300	650	3200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,400
PCM-508A	8/15/06	1,100	1,100	1,300	350	2,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,800
PCM-508B	3/19/15	<10	5	<10	51	22.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,870
PCM-508B	3/19/14	<100	50	<100	<100	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	7,060
PCM-508B	3/25/13	10	10	<20	130	220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	6,500
PCM-508B	3/28/12	71	71	<20	91.7	439	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,660
PCM-508B	3/28/12	76	76	<20	90.4	478	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	5,520
PCM-509A	3/20/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1
PCM-509A	3/26/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	1
PCM-509A	3/26/13	<1	0.5	<2.0	<2.0	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<5
PCM-509A	3/21/12	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
PCM-509A	3/28/11	<0.50	0.3	<2.0	<2.0	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2.0
PCM-509A	4/7/10	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	730
PCM-509A	4/2/09	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	520
PCM-509A	4/2/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	290
PCM-509B	3/20/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	777
PCM-509B	3/26/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	700
PCM-509B	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,000
PCM-509B	3/21/12	5.6	5.6	<2	<2	<1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,280
PCM-510A	3/31/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1.0
PCM-510A	3/27/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3.6
PCM-510A	3/26/13	<1	0.5	<2	<2	<3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	220

APPENDIX E
HISTORICAL ANALYTICAL RESULTS
(concentrations in ug/L)

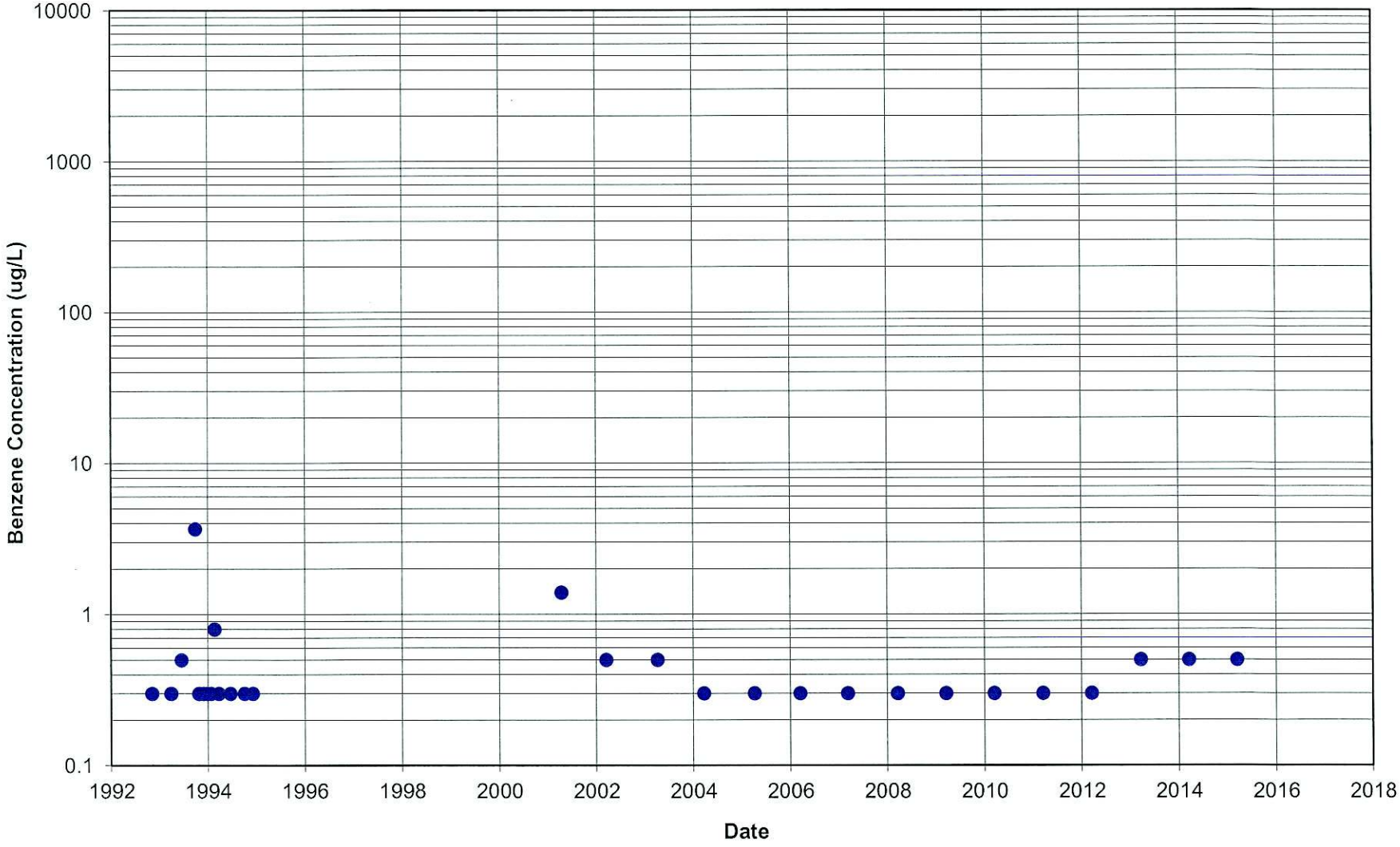
Well ID	Sample Date	Benzene	Plotted Benzene	Toluene	Ethyl-benzene	Total Xylenes	Isopropyl-benzene	n-Propyl-benzene	1,2,3-Trichloro-benzene	1,3,5-Trimethyl-benzene	tert-Butyl-benzene	1,2,4-Trimethyl-benzene	sec-Butyl-benzene	P-Isopropyl-toluene	N-Butyl-benzene	Naphthalene	1,2 Dibromo-ethane (EDB)	1,2-Dichloro-benzene	trans 1,2-dichloro-ethene	Methylene chloride	1,4-Dichloro-benzene	Bromochloro-methane	Methyl-Tert-Butyl-Ether (MTBE)
PCM-510A	3/21/12	1.6	1.6	7.56	2.84	29.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	695
PCM-510A	3/21/11	<2.5	1.25	<10	<10	<5	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	997
PCM-510A	4/12/10	<5	2.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,400
PCM-510A DUP	4/12/10	<5	2.5	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,300
PCM-510A	4/7/09	<0.50	0.3	<2.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,000
PCM-510A	4/9/08	13	13	23	16	85	<1	1.8	<1	9.5	<1	19	<1	<1	<1	6.8	<1	<0.5	<0.5	<2	<0.5	<0.5	2500
PCM-510A	4/4/07	<0.50	0.3	<3.0	<2.0	<3.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,100
PCM-510B	3/31/15	28.8	28.8	<25	135.0	374	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	3,940.0
PCM-510B	3/27/14	25.3	25.3	<25	85.7	159	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,340.0
	PCM-510B was not sampled prior to 2014 due to free product.																						
PCM-511A	3/29/11	1,180	1180	909	832	4,410	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	2,470
	PCM-511A was not sampled prior to and after 2011 due to free product.																						
PCM-512A	3/25/15	276	276	<20	1050	1,430	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	9,980
PCM-512A	3/27/14	363	363	<200	1850	8,450	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11,000
PCM-512A	3/27/12	1,150	1150	457	734	2,220	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	13,700
PCM-512A	3/21/11	865	865	<40	382	193	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	11,900
PCM-512A DUP	3/21/11	903	903	<40	403	210	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	12,000
PCM-512A	4/15/10	470	470	<50	250	600	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,000
PCM-512A	4/8/09	1,200	1200	150	510	3,700	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	16,000
PCM-512A	4/10/08	580	580	83	280	3700	29	58	<50	290	<25	1500	<15	29	<25	270	<5	<15	<5	<30	<15	<5	16000
PCM-512A	8/19/06	1,300	1,300	1,200	390	1,200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	14,000
	PCM-512A was not sampled in 2008 and 2013 due to free product.																						
PCM-517A	3/25/15	5,950	5,950	14.2	208	62	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	247
PCM-517A	3/25/15	4,980	4,980	12.8	230	55.7	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	247
PCM-517A	3/21/14	7,110	7,110	<100	237	<200	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	362
PCM-517A	3/25/13	11,000	11,000	22	520	<30	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	430
PCM-517A	3/29/12	10,500	10,500	<200	276	<100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	489
PCM-517A	3/29/11	13,300	13,300	<100	538	<50	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	563
PCM-517A	4/8/10	15,000	15,000	100	690	300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	520
PCM-517A	4/7/09	21,000	21,000	380	980	1,100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	600
PCM-517A	4/9/08	21000	21000	320	730	440	47	120	<5	44	<5	190	5.6	47	<5	140	<5	<2.5	<2.5	<10	<2.5	<2.5	390
PCM-517A	4/12/07	20,000	20000	3,400	1400	960	56	120	NA	92	NA	270	<15	NA	<25	230	NA	NA	NA	NA	NA	NA	680
PCM-535A	3/19/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	58.5
PCM-535A	3/19/15	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	60.0
PCM-535A	3/20/14	<1	0.5	<1	<1	<2	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	62
PCM-535A	4/24/13	<4	2	<4	<4	<20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	63
PCM-535A	4/2/12	0.63	0.63	2	4.34	143	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	51.4

Notes:
µg/L = micrograms per liter
NA = Not Analyzed
<0.5 = Indicates concentration was less than the Method Detection Limit (MDL)
DUP = Field Duplicate
*** - Laboratory detection limit exceeds AWQS**
**** - Wells purged dry and initial samples were collected prior to wells recovering to at least 80%.**

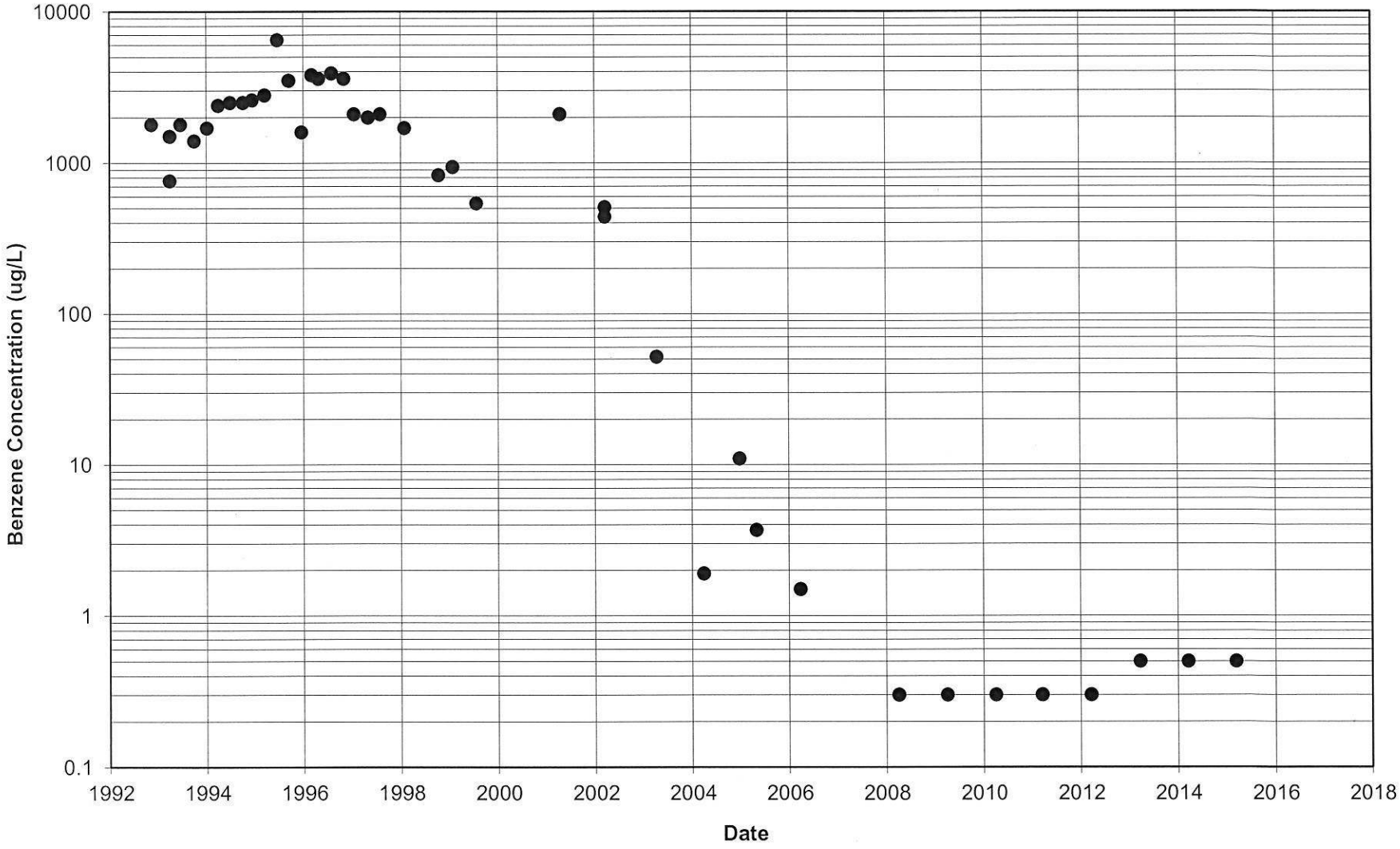
APPENDIX F

Benzene Concentration Time Series Plots

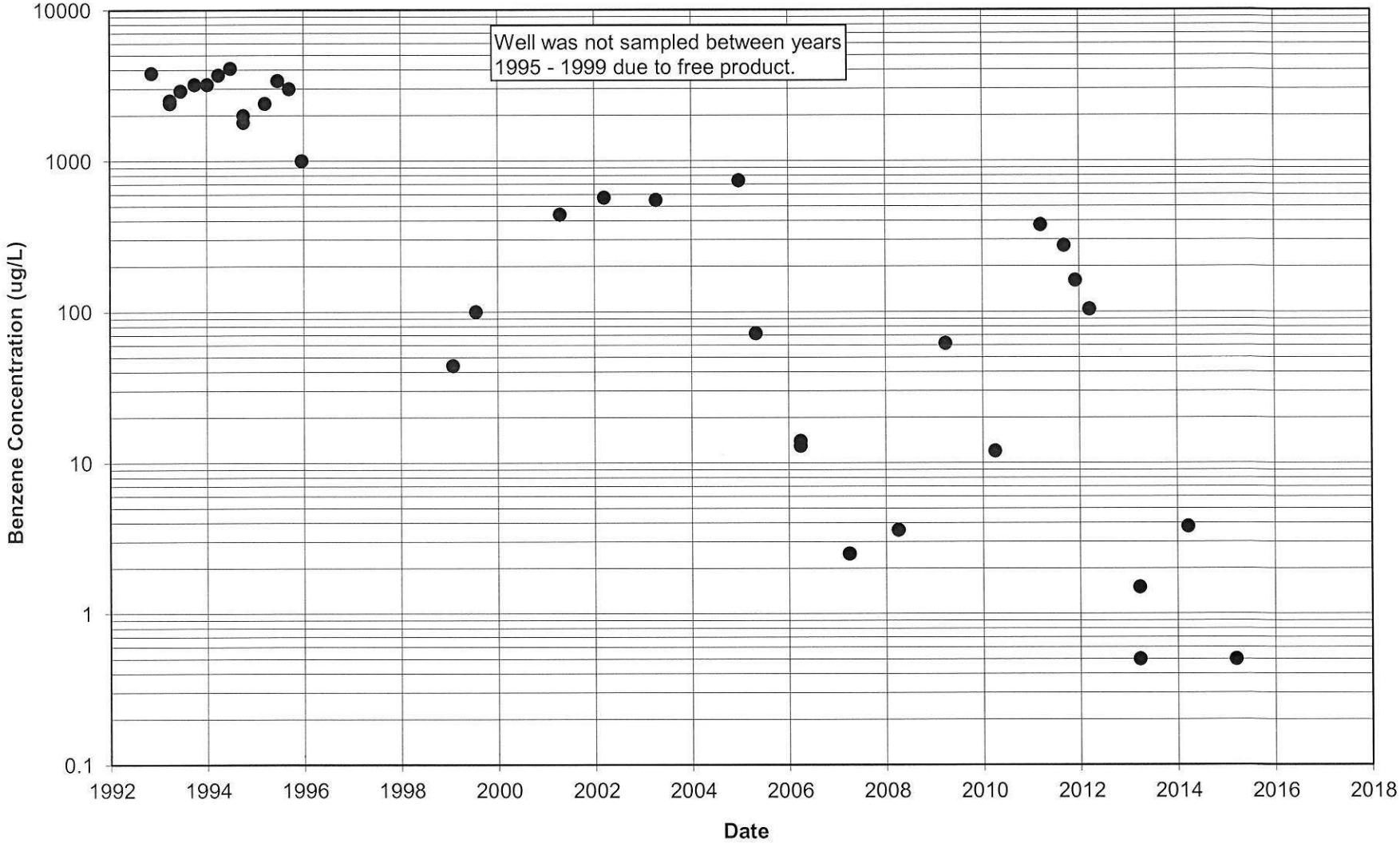
Time series plot of benzene in WR-208A



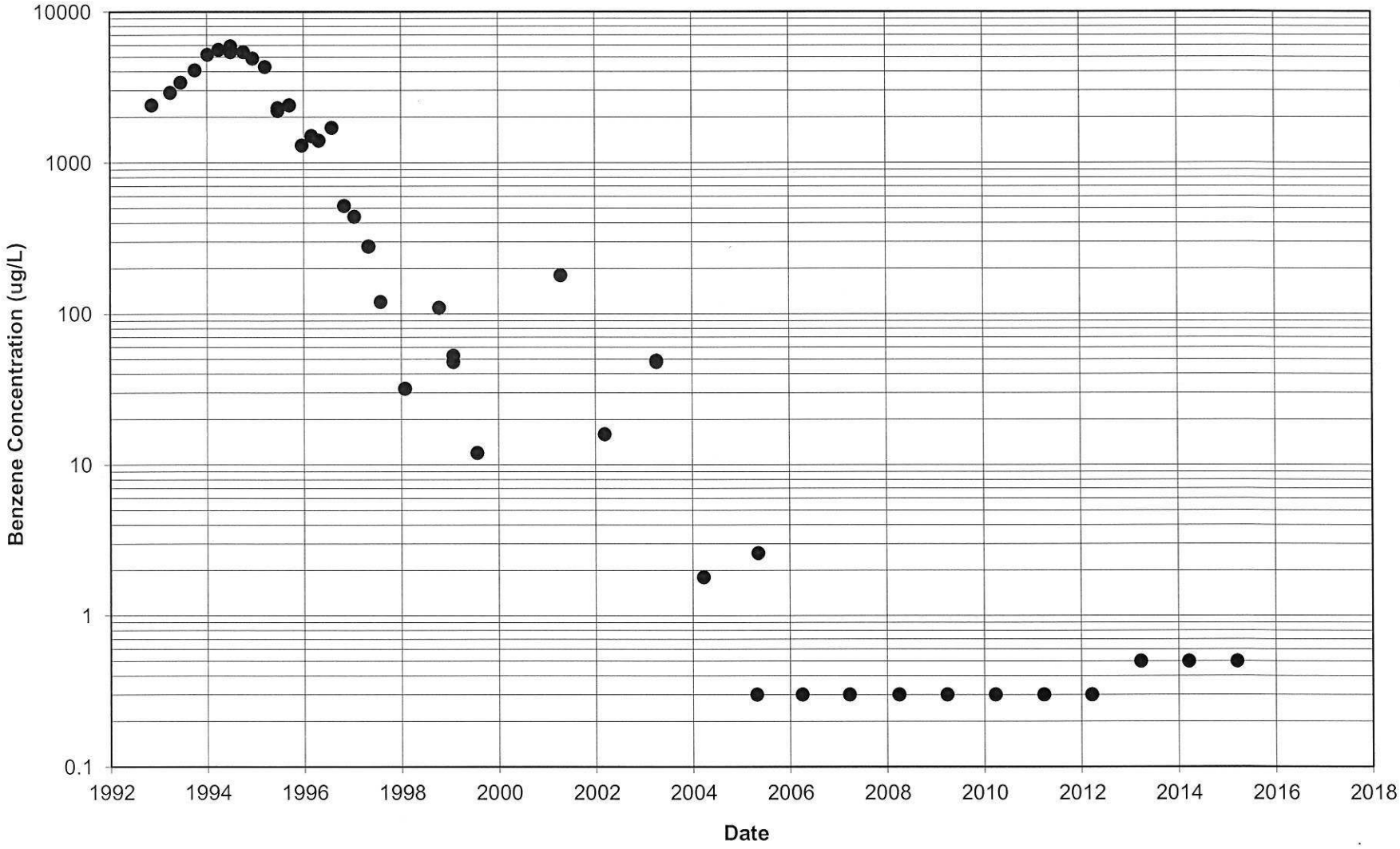
Time series plot of benzene in WR-209A



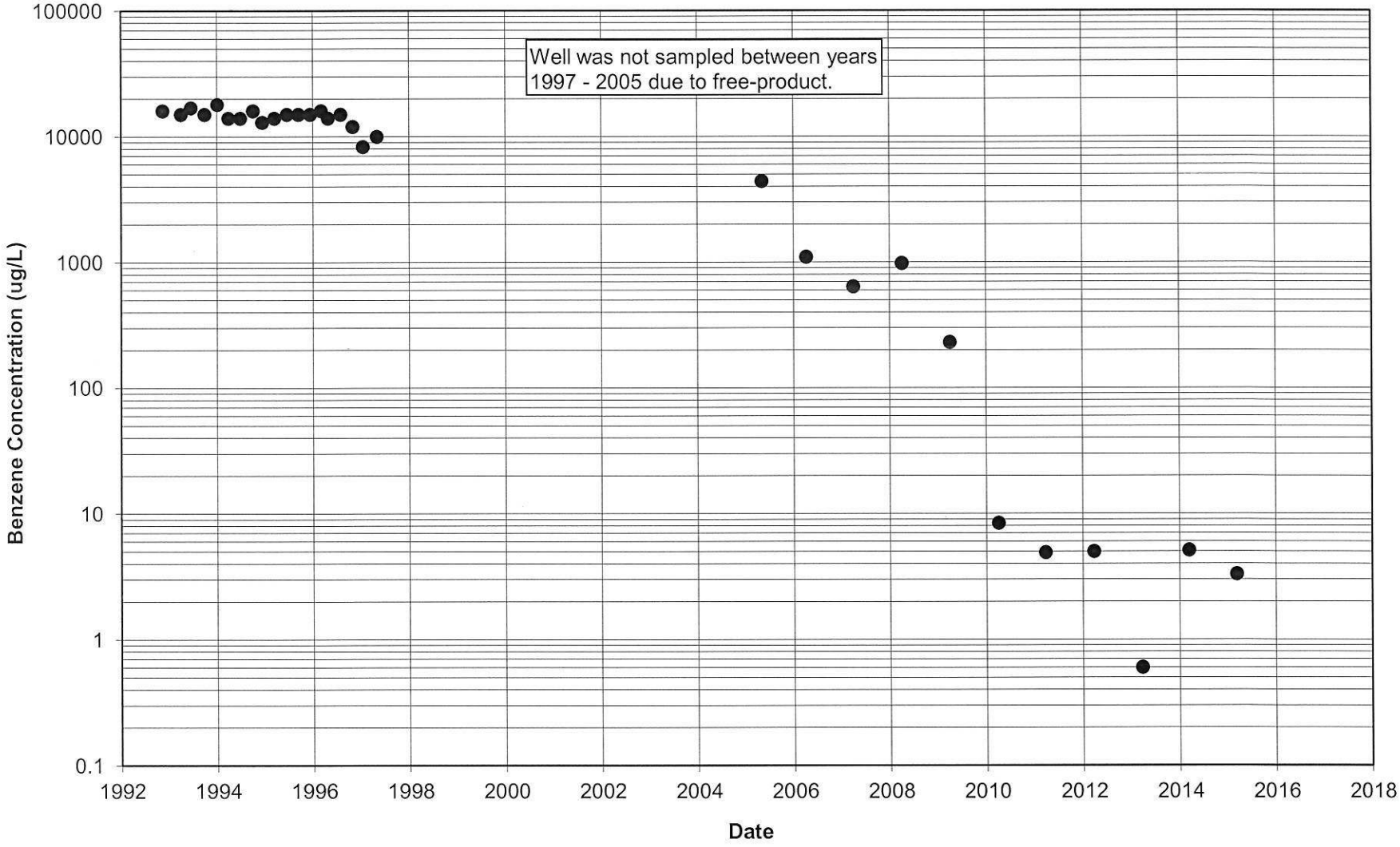
Time series plot of benzene in WR-210A



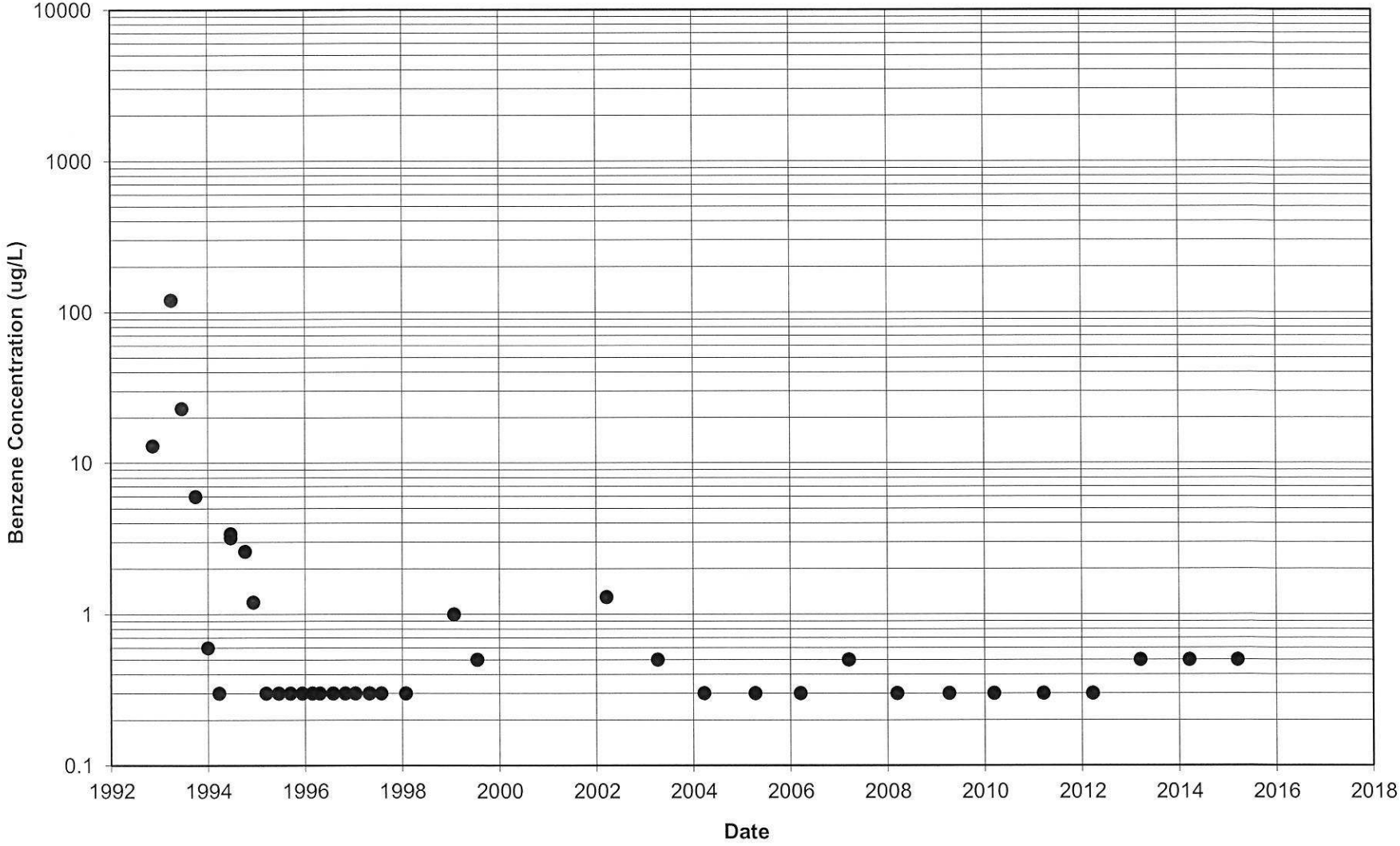
Time series plot of benzene in WR-211A



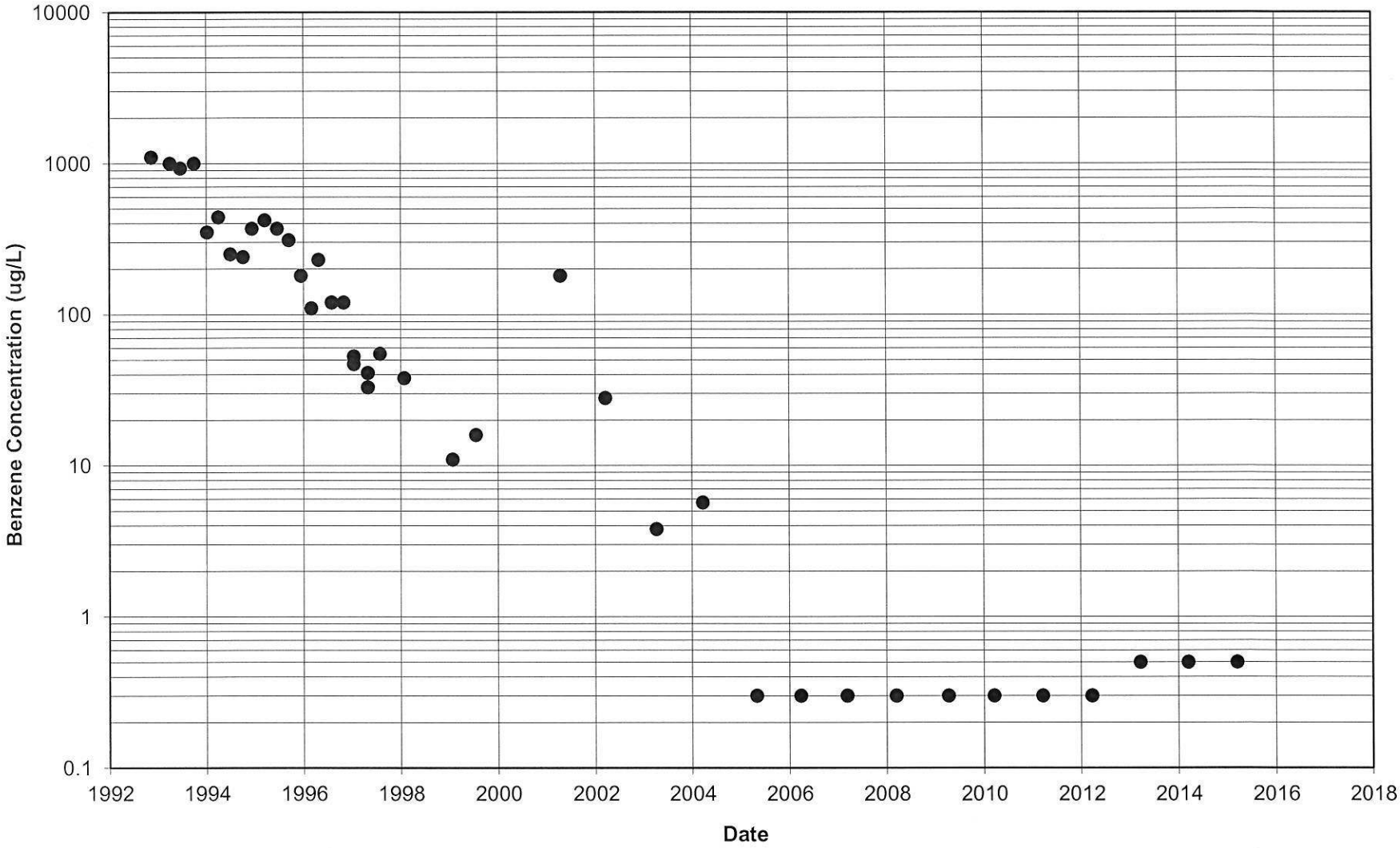
Time series plot of benzene in WR-212A



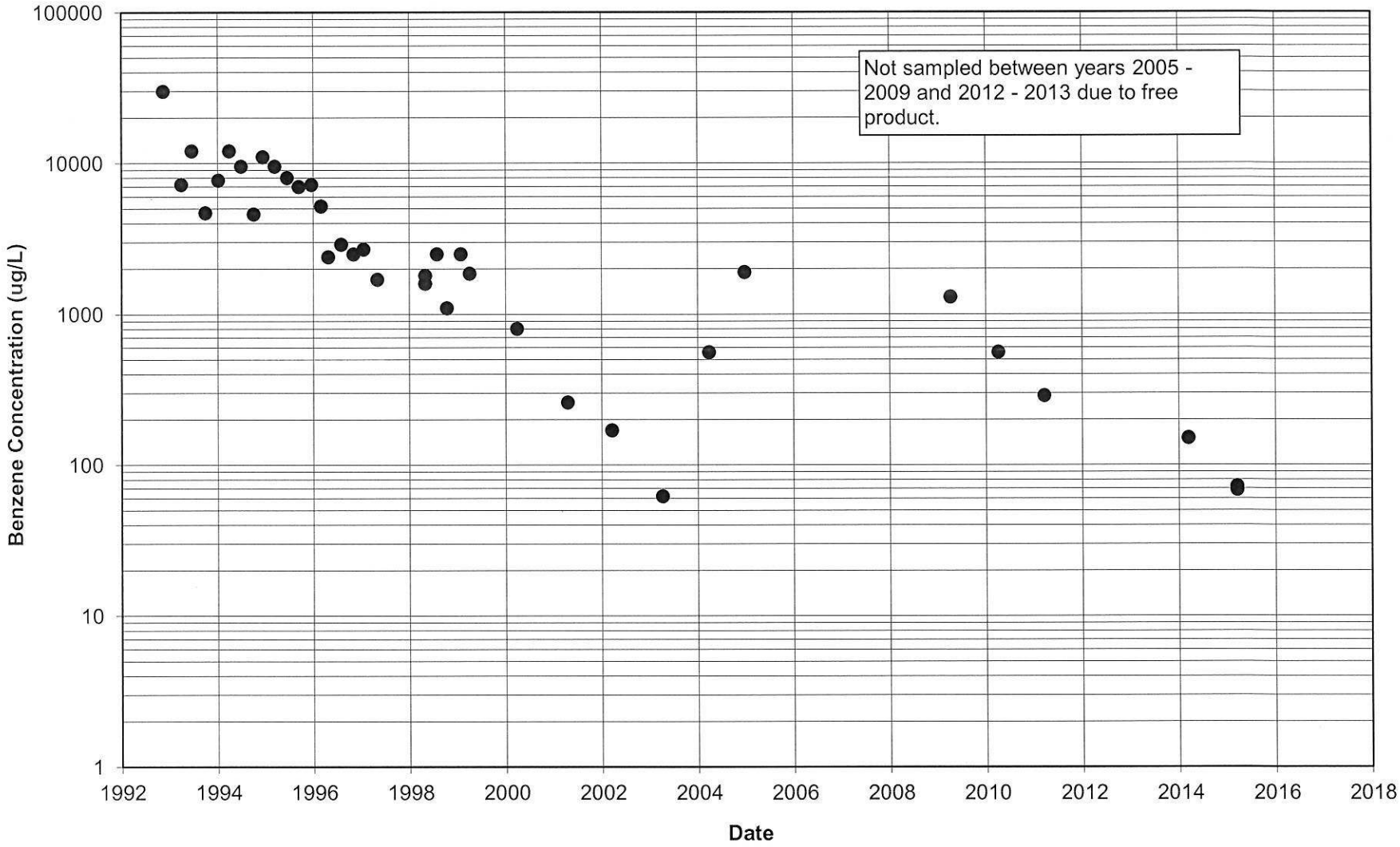
Time series plot of benzene in WR-213A



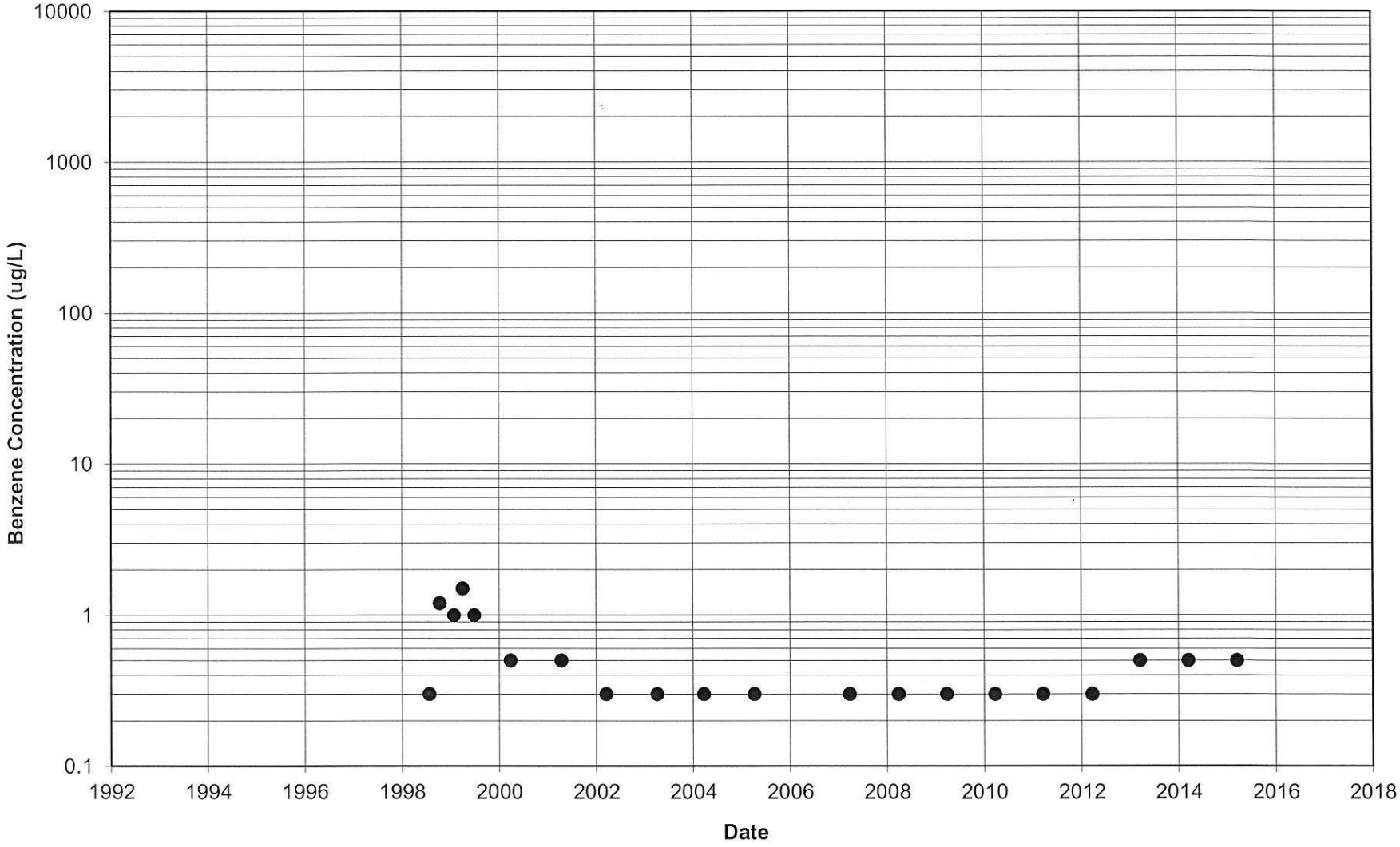
Time series plot of benzene in WR-214A



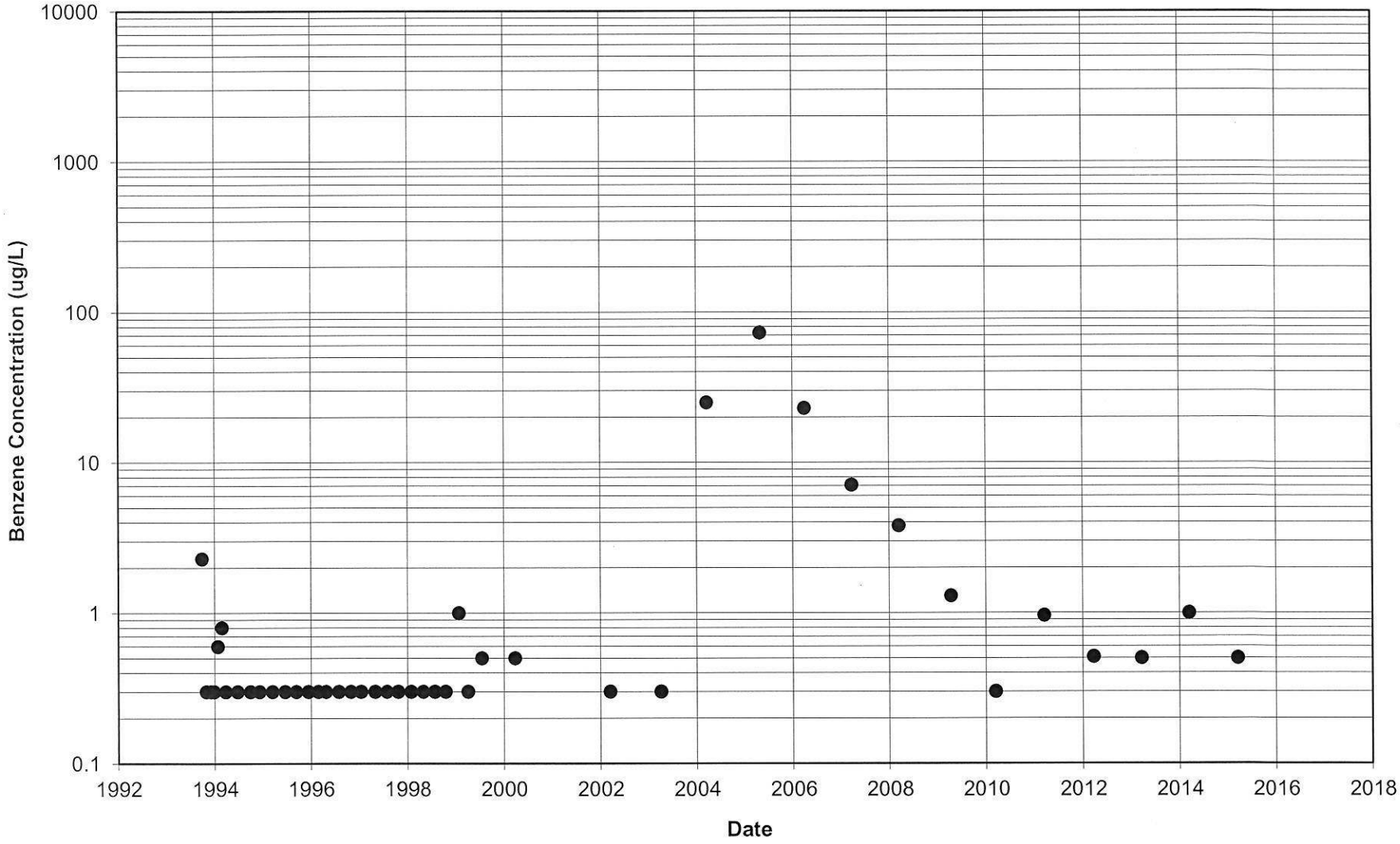
Time series plot of benzene in WR-215A



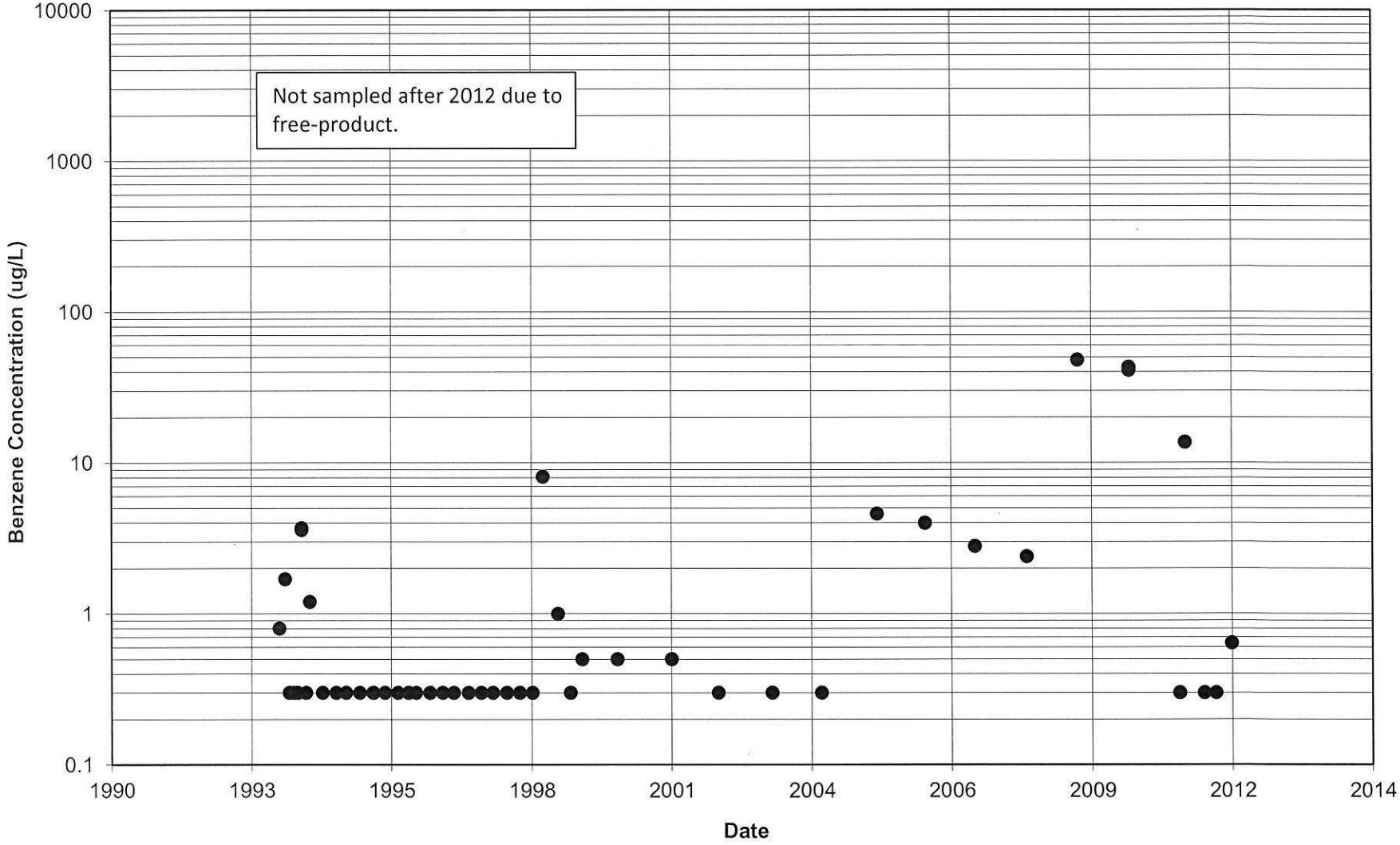
Time series plot of benzene in WR-217A



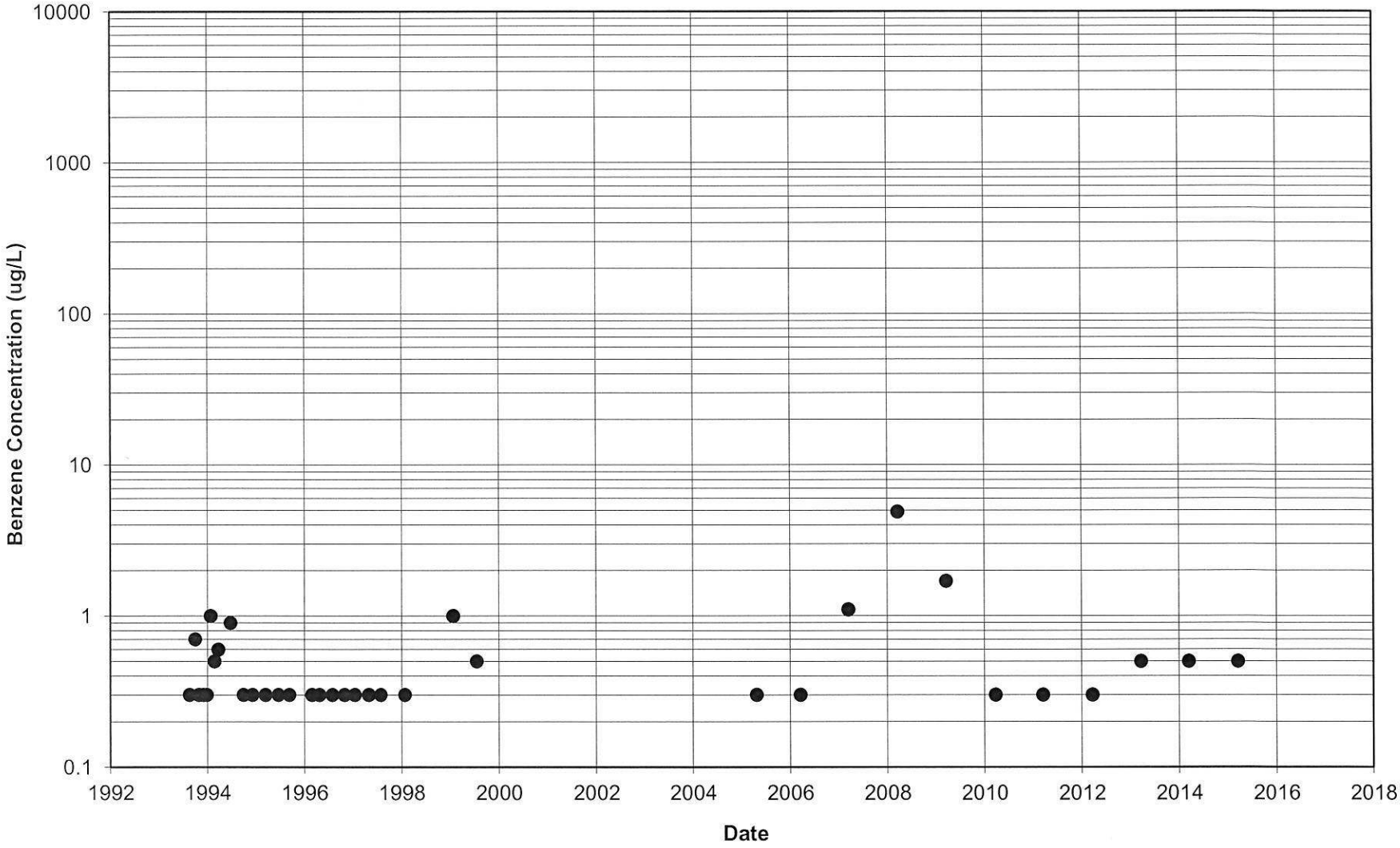
Time series plot of benzene in WR-219A



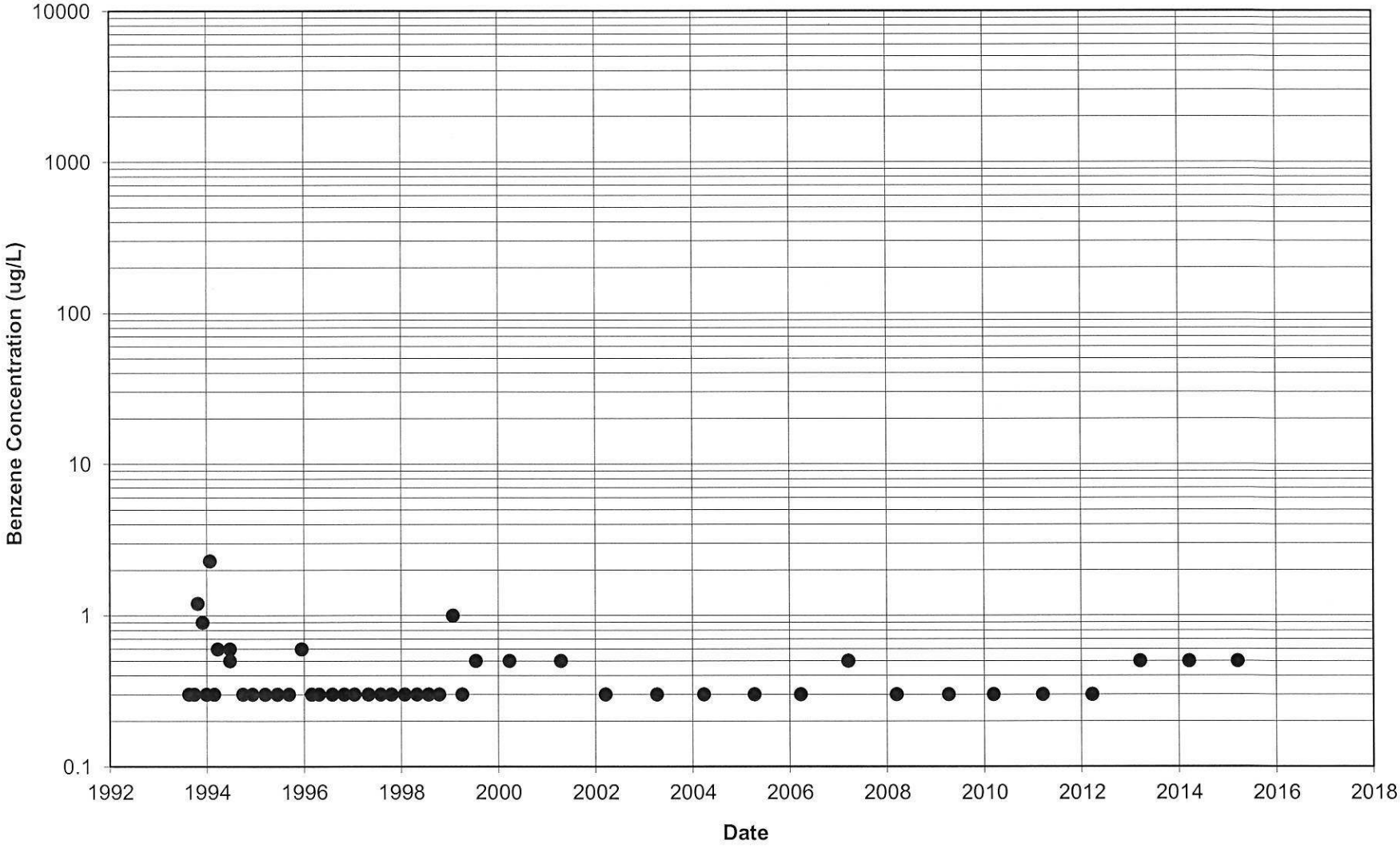
Time series plot of benzene in WR-220A



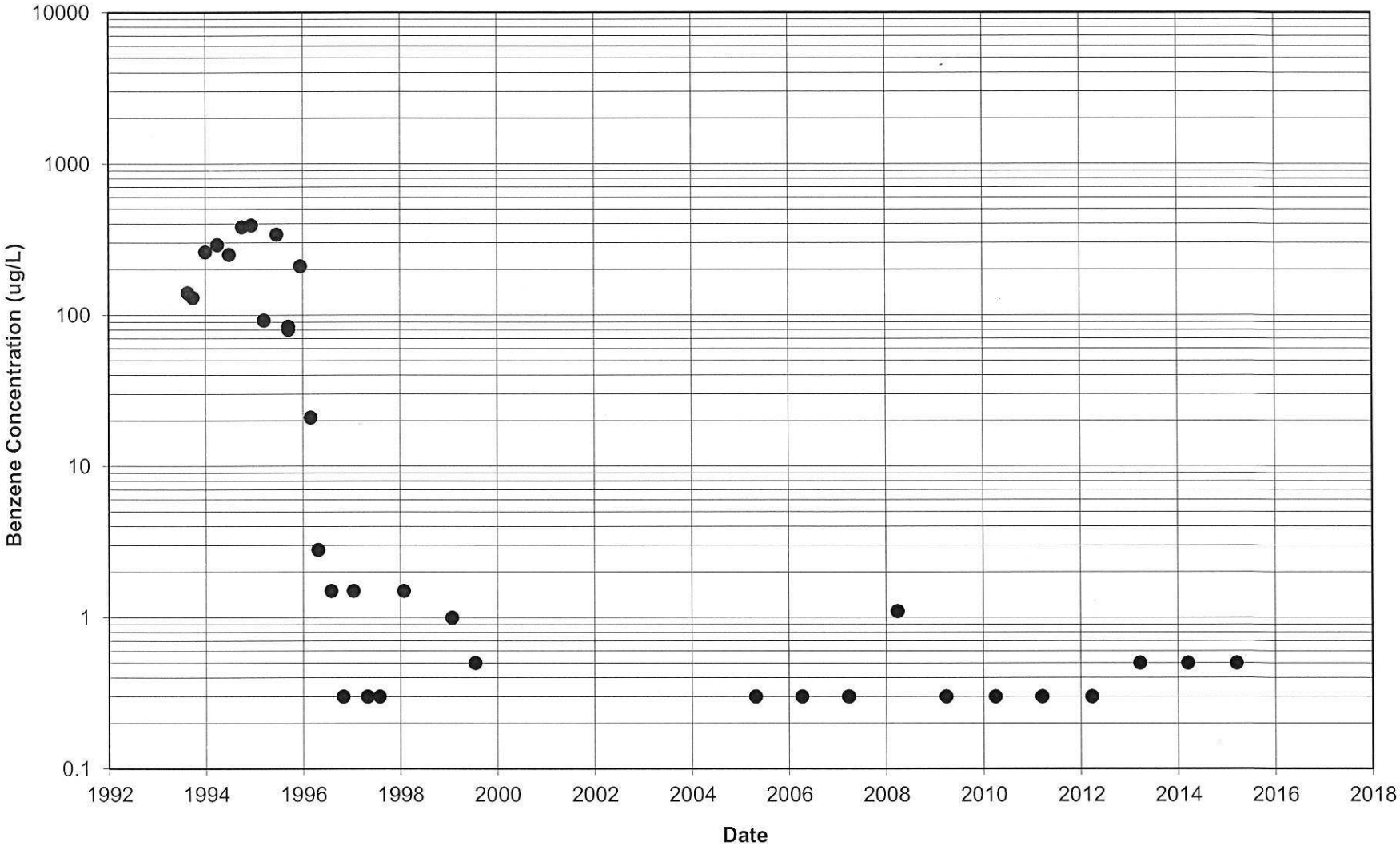
Time series plot of benzene in WR-221A



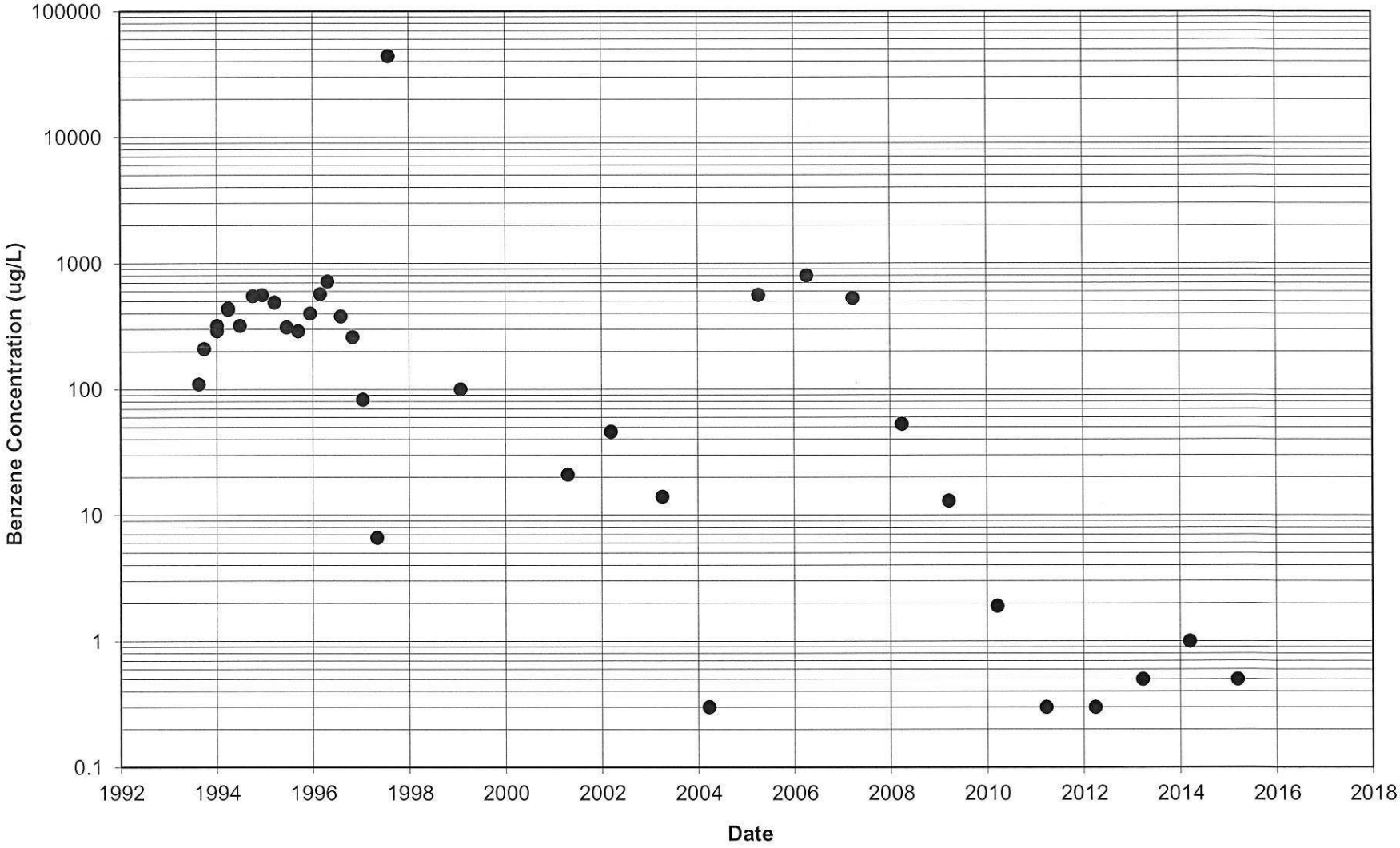
Time series plot of benzene in WR-222A



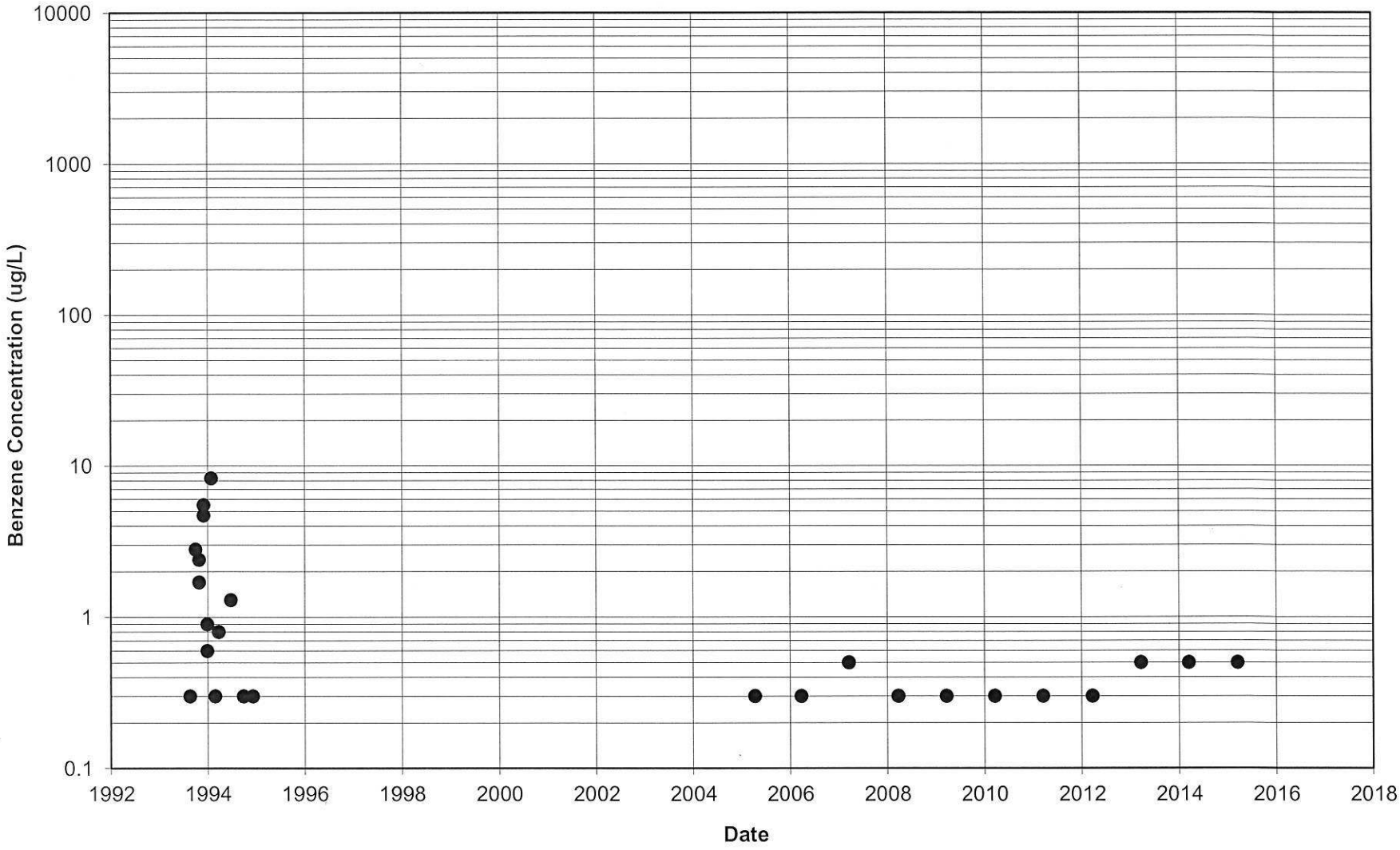
Time series plot of benzene in WR-223A



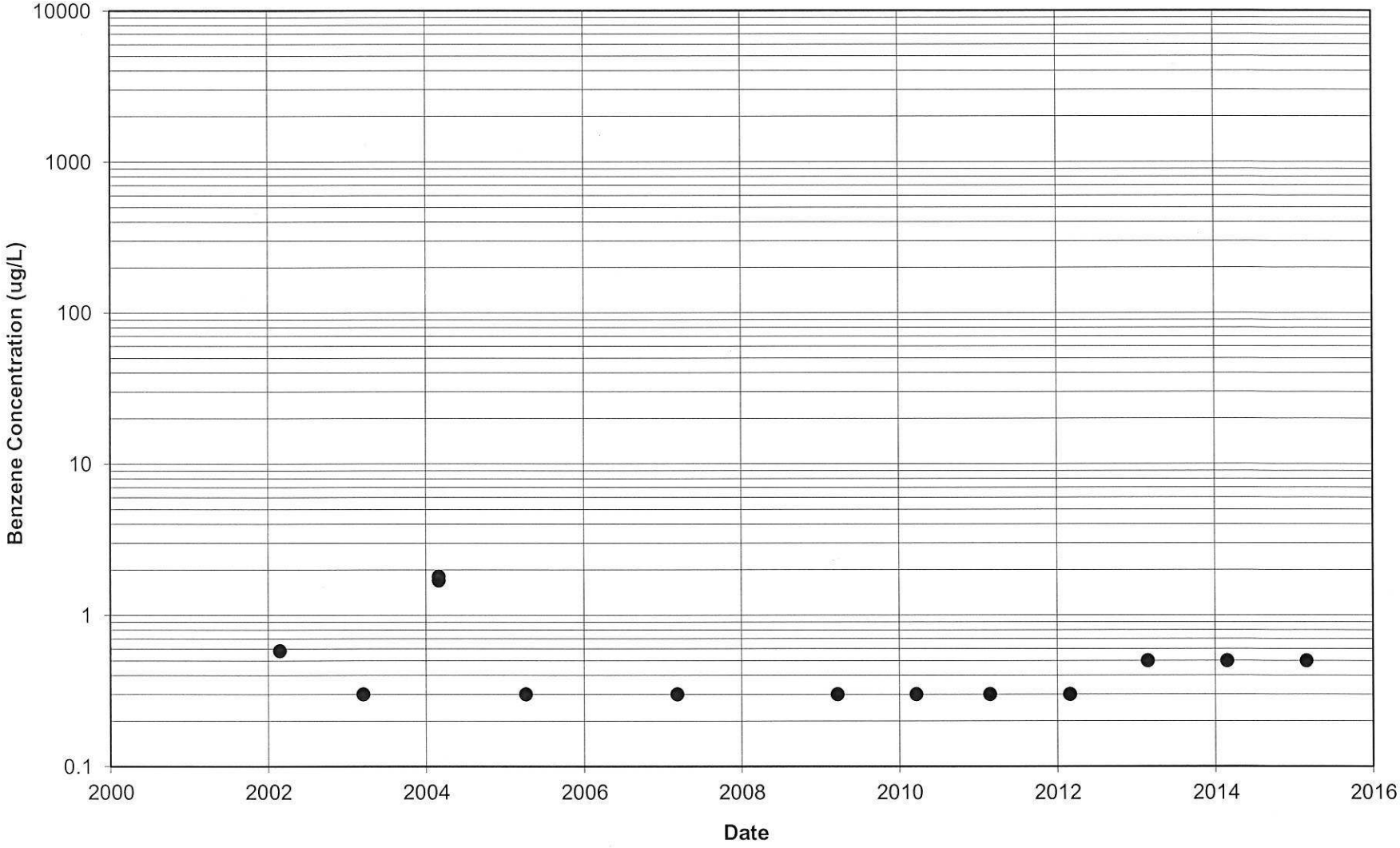
Time series plot of benzene in WR-224A



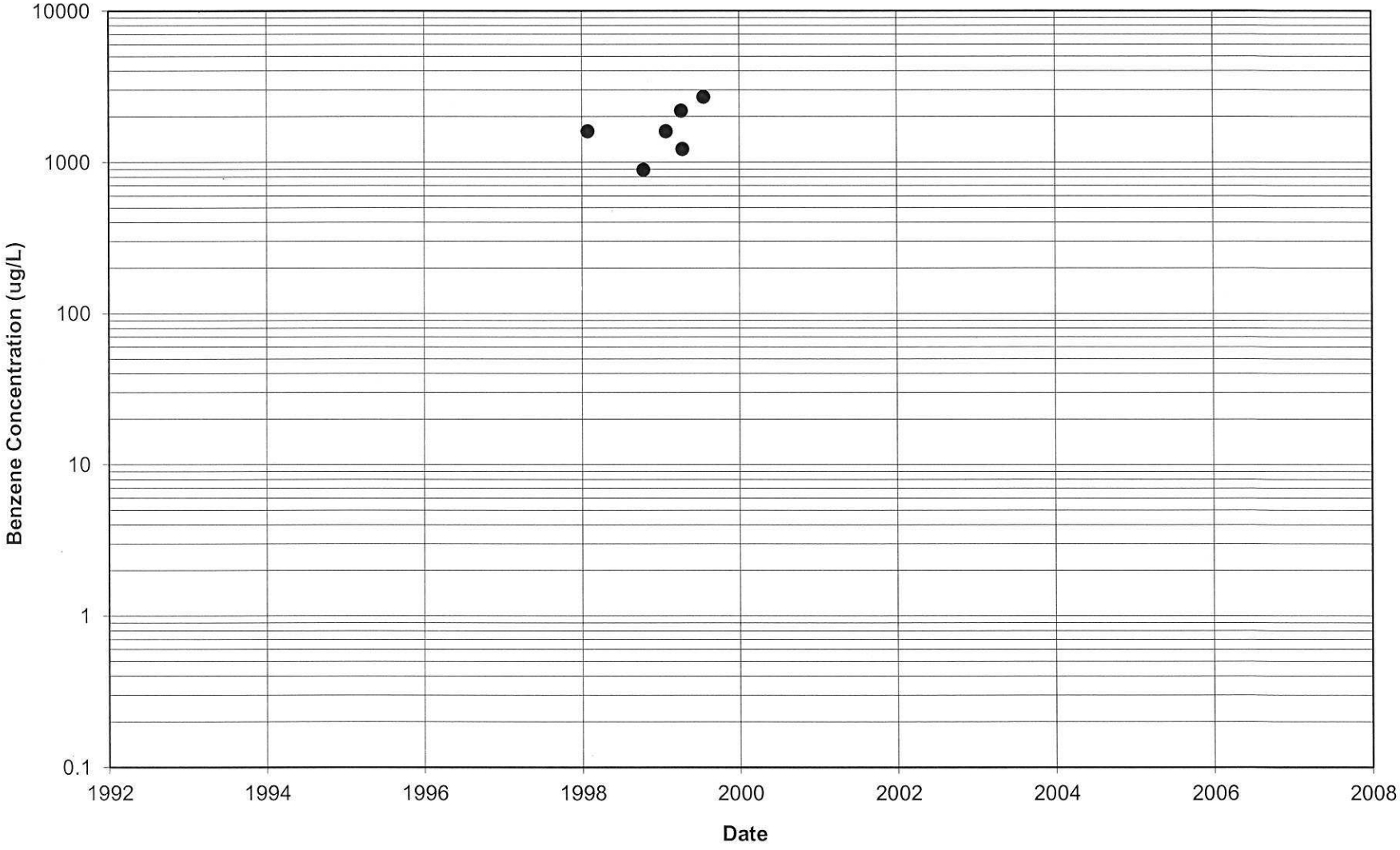
Time series plot of benzene in WR-225A



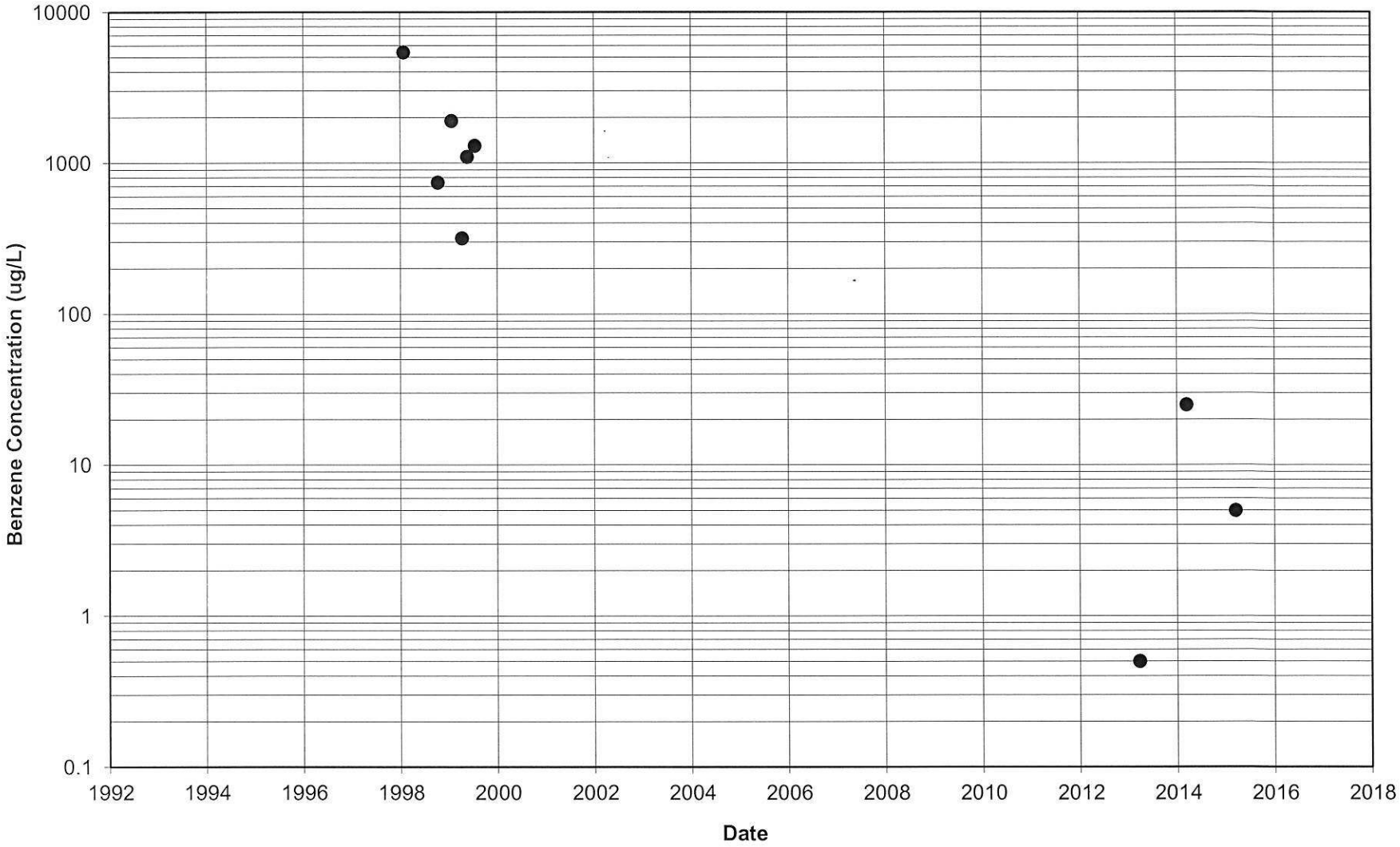
Time series plot of benzene in WR-227A



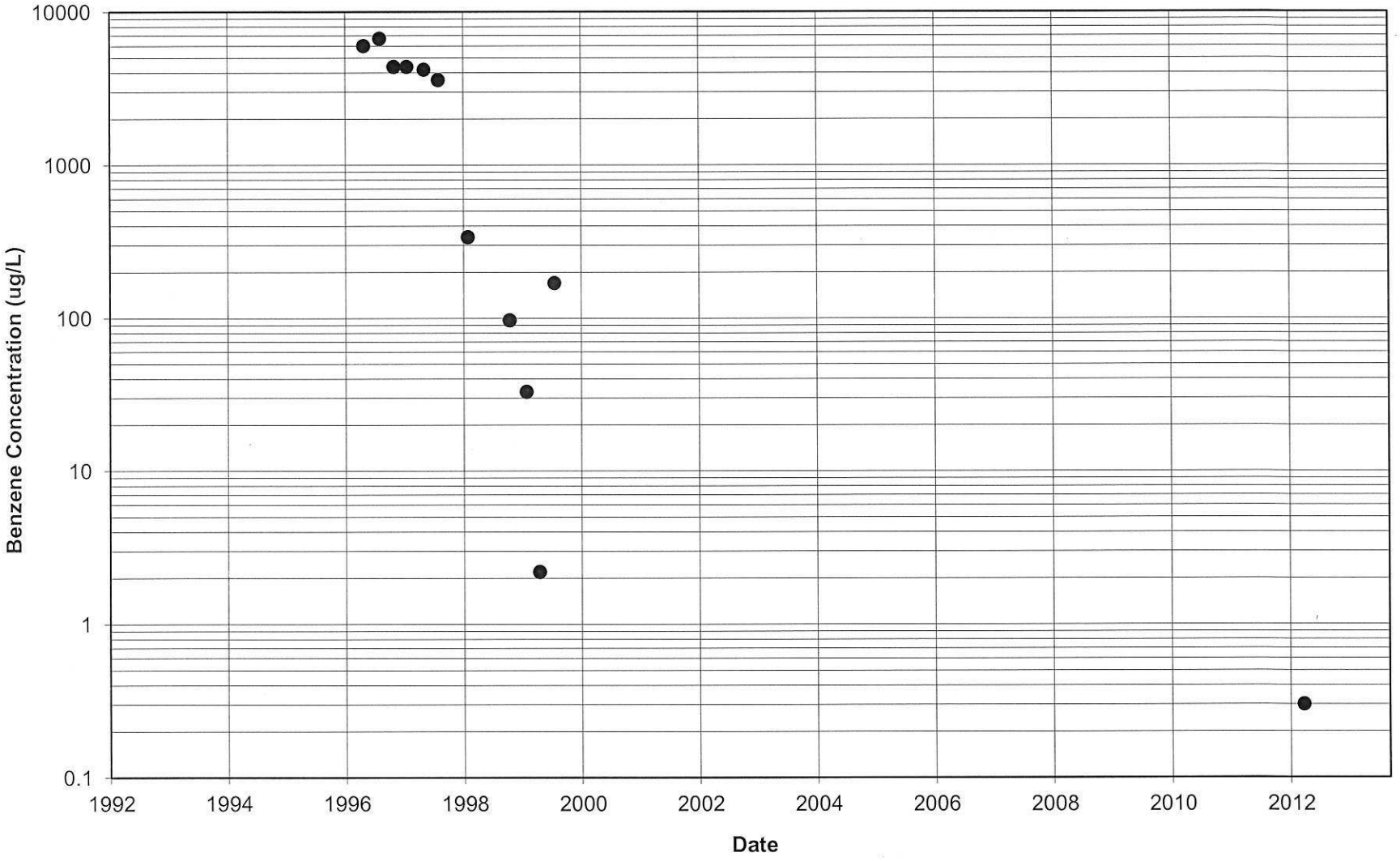
Time series plot of benzene in WR-295A INJ-1S



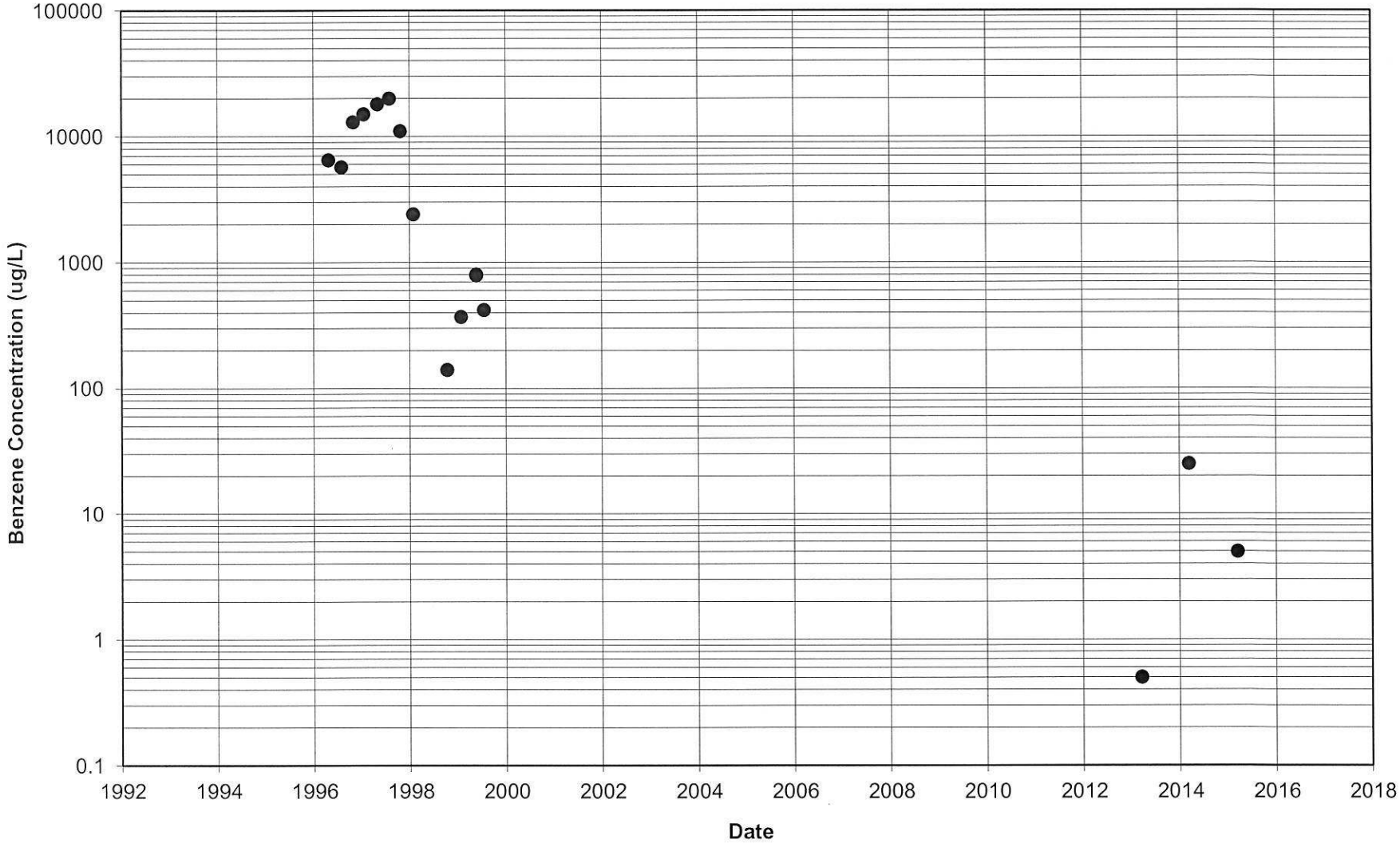
Time series plot of benzene in WR-296A INJ-1S



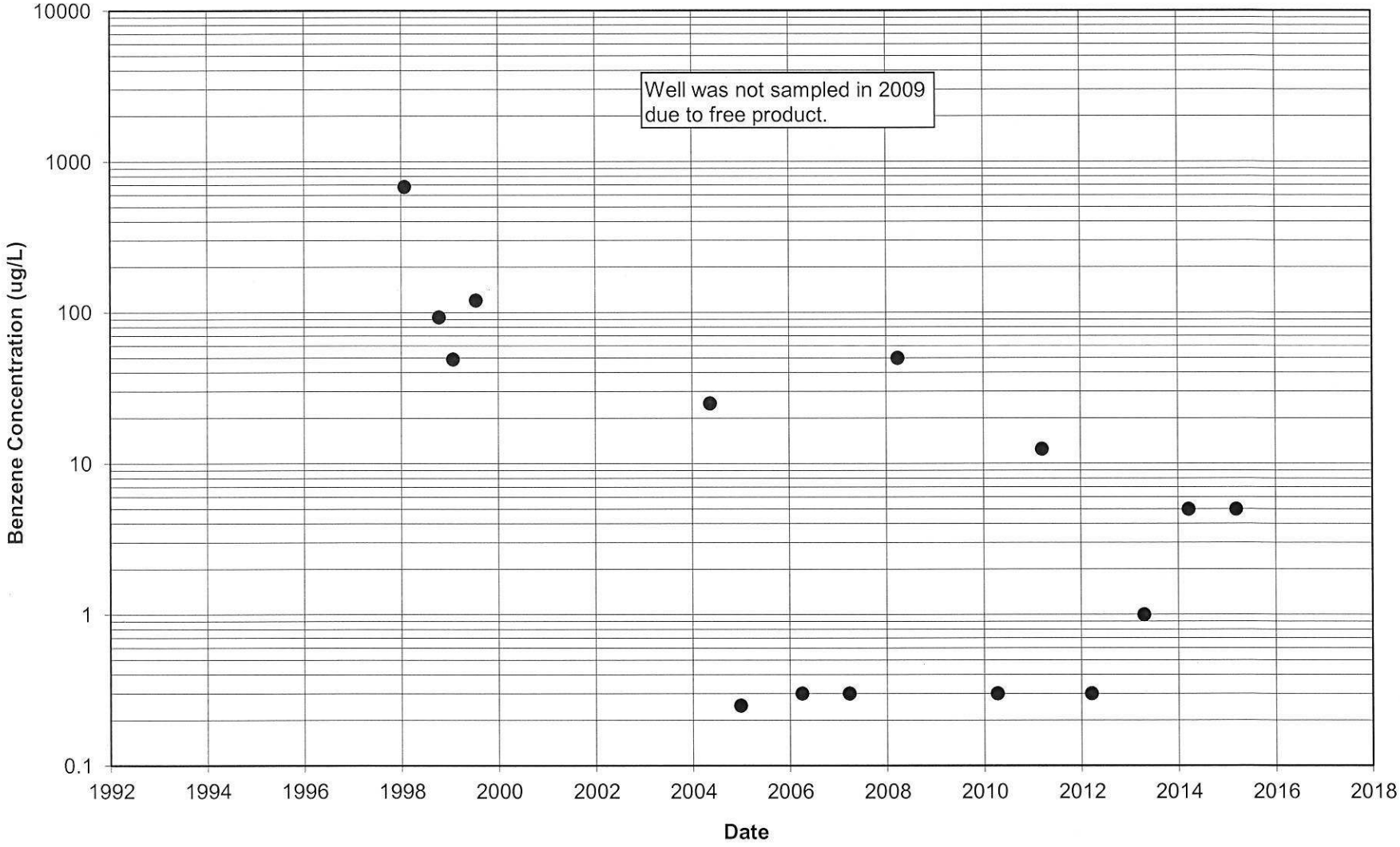
Time series plot of benzene in WR-297A INJ-3S



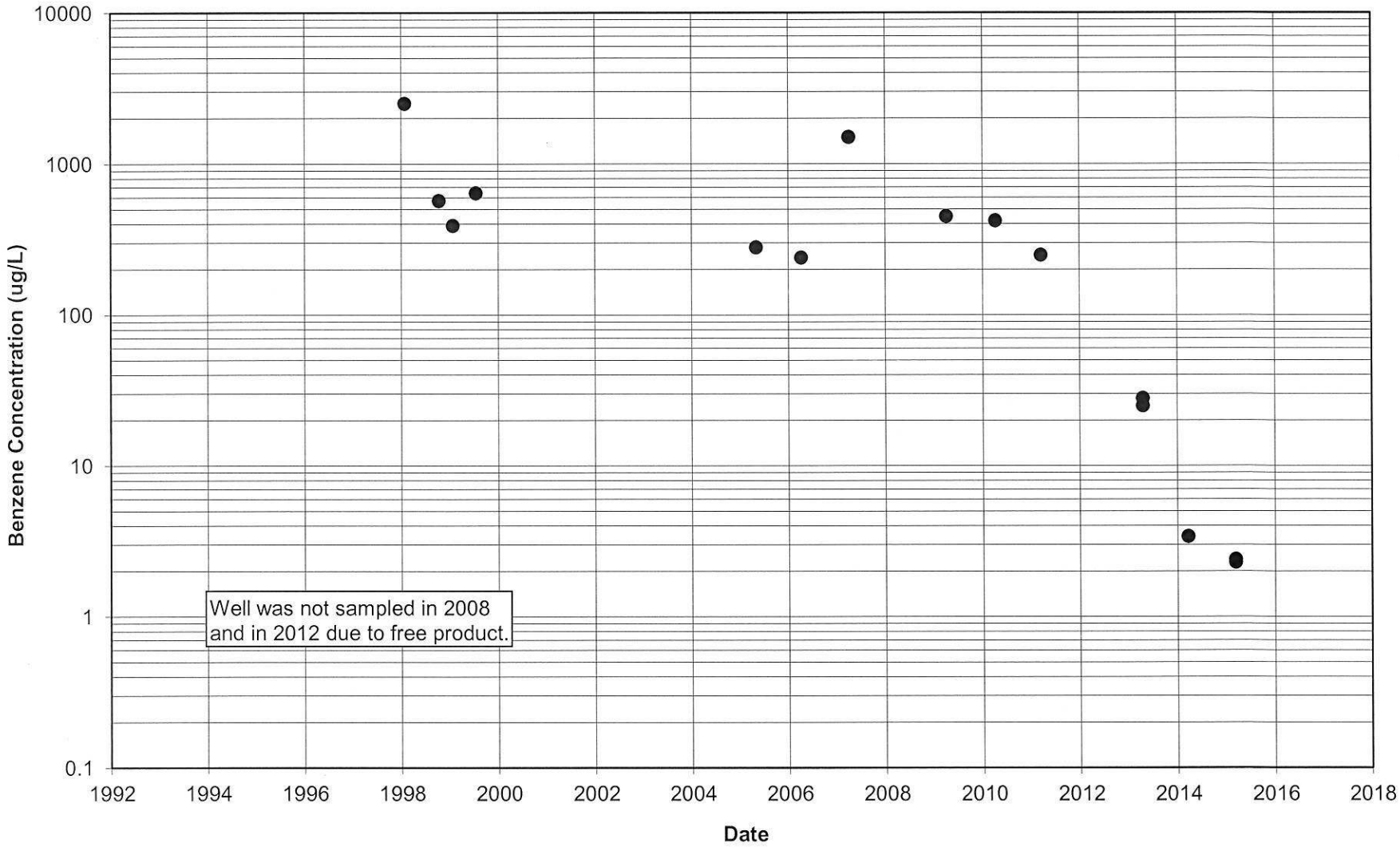
Time series plot of benzene in WR-298A INJ-4S



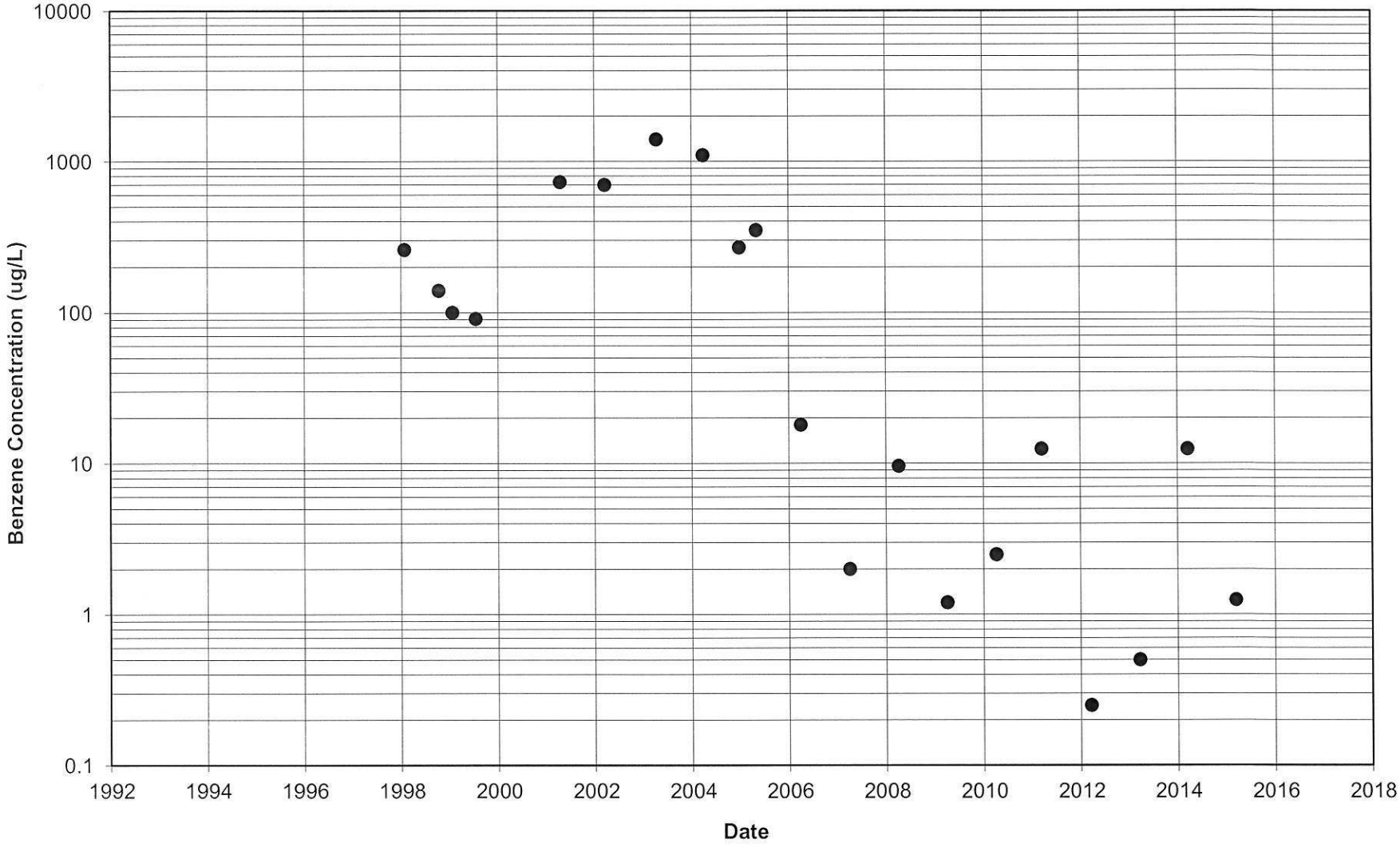
Time series plot of benzene in R-012A



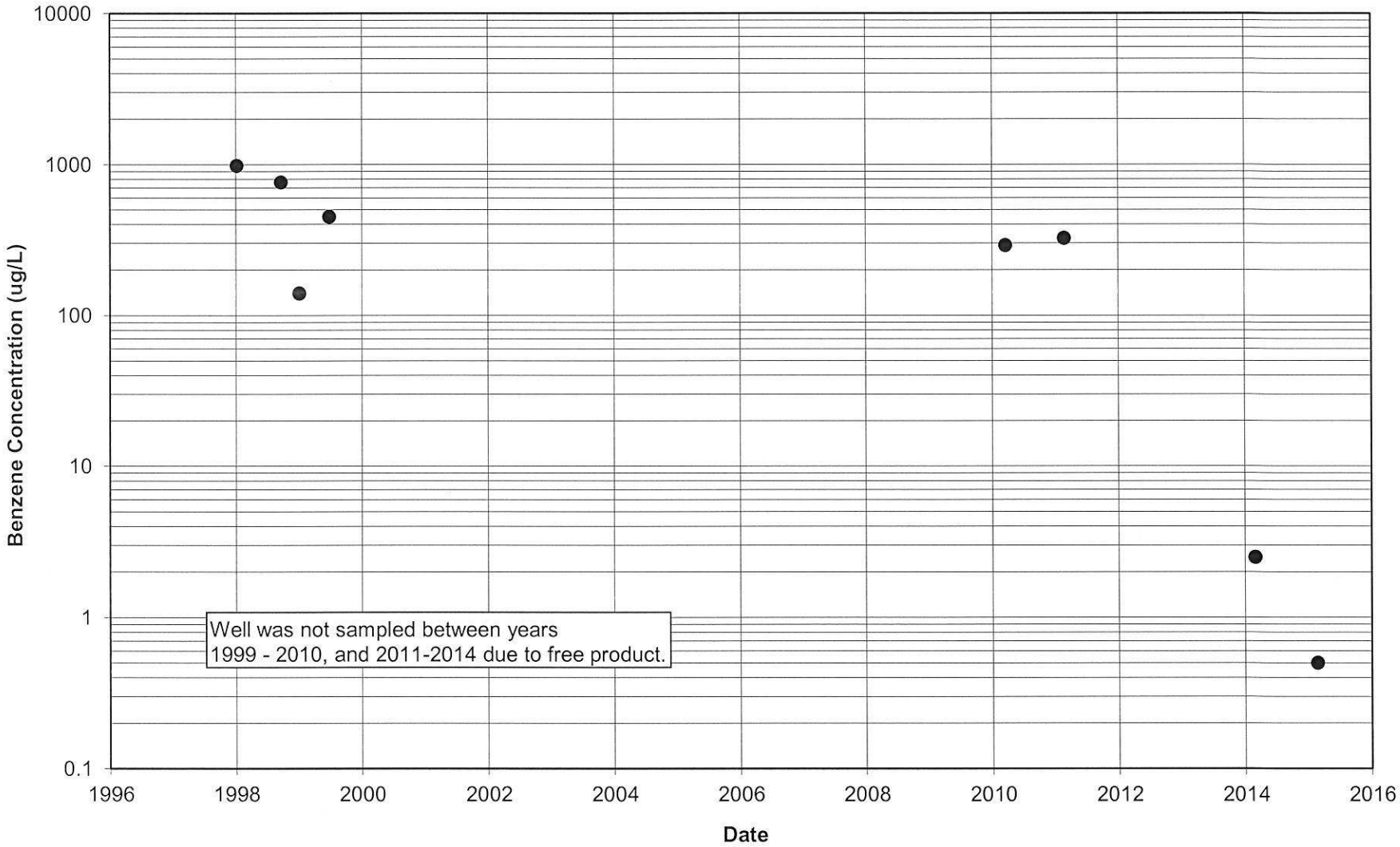
Time series plot of benzene in R-013A



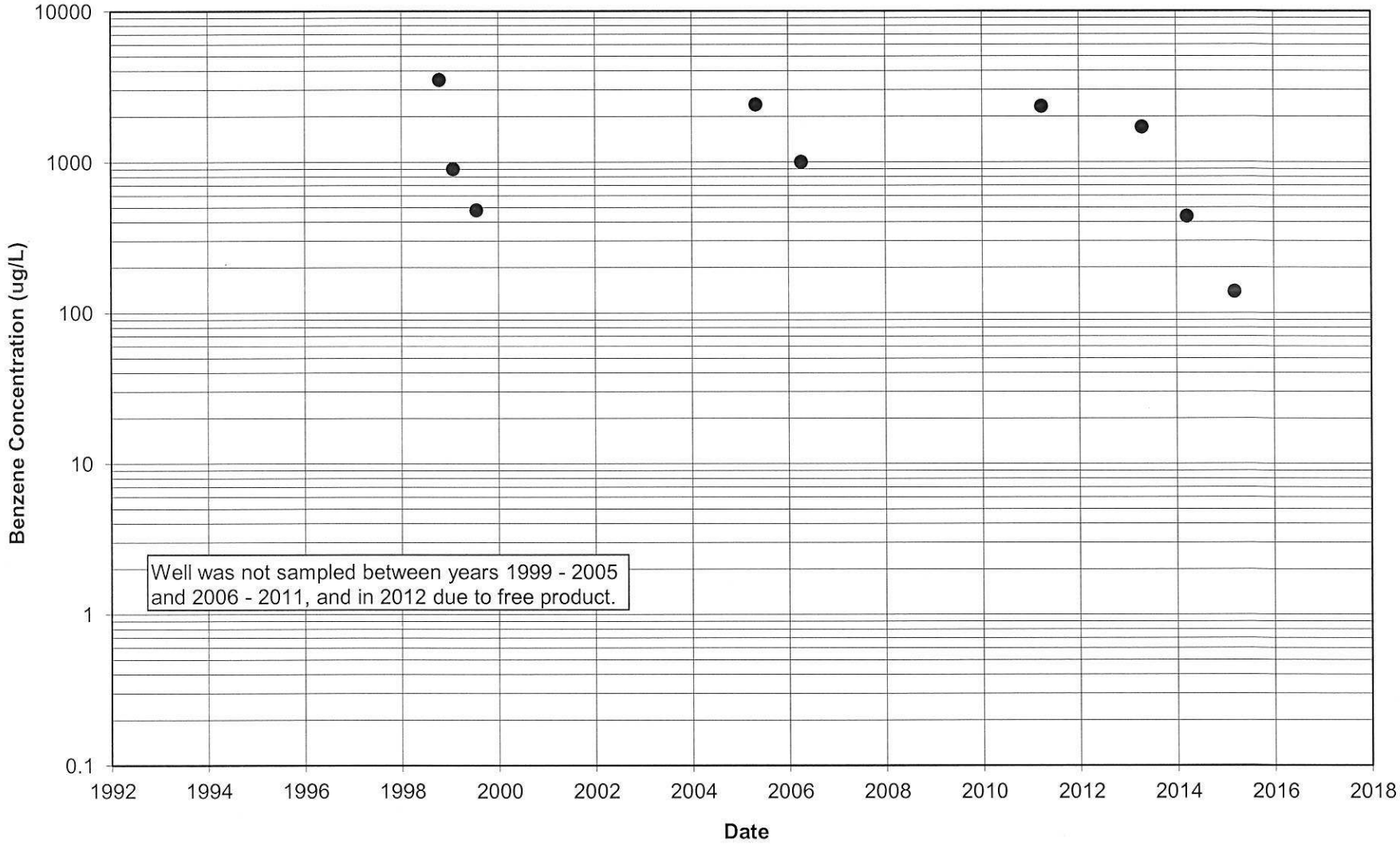
Time series plot of benzene in R-016A



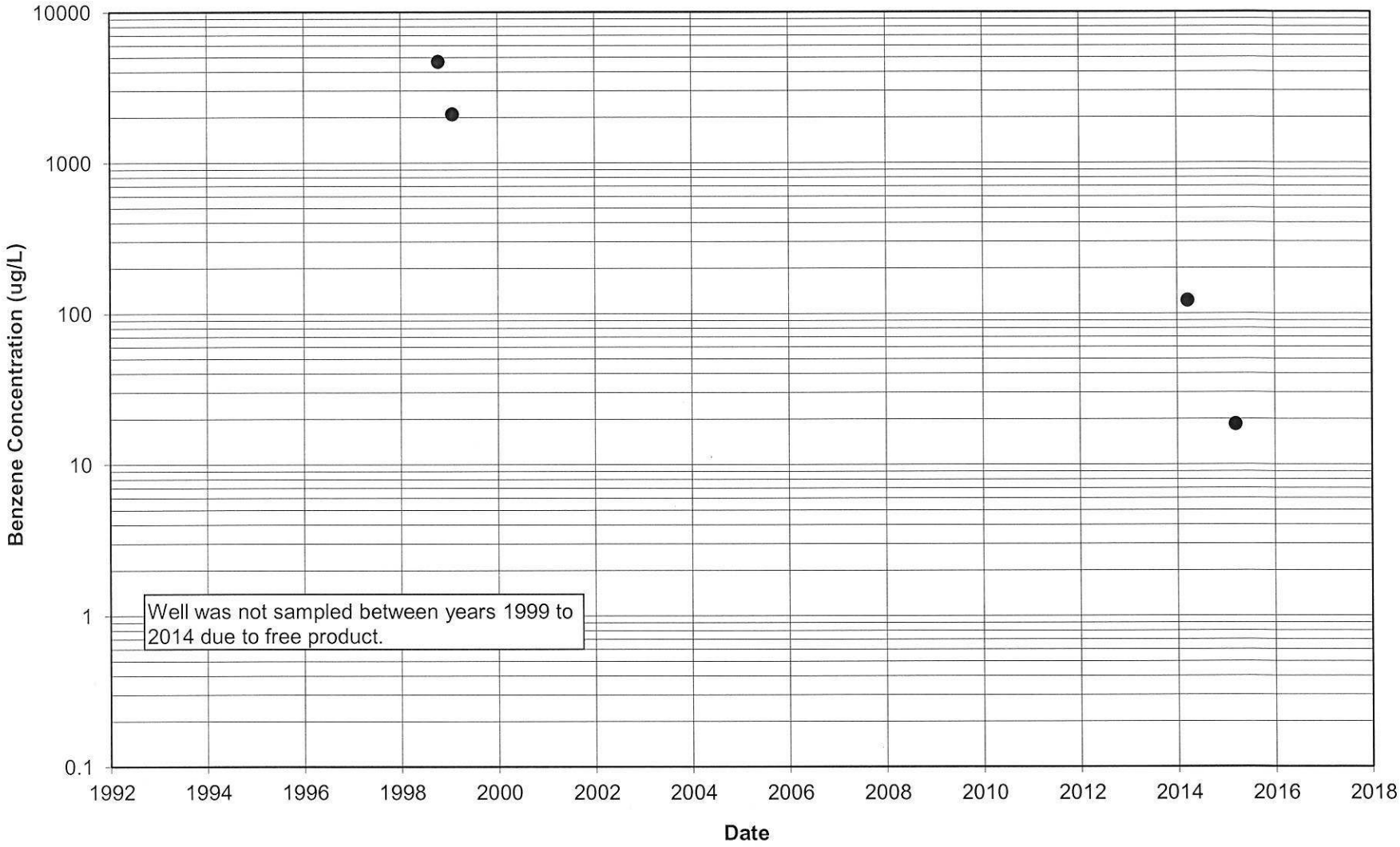
Time series plot of benzene in R-017A



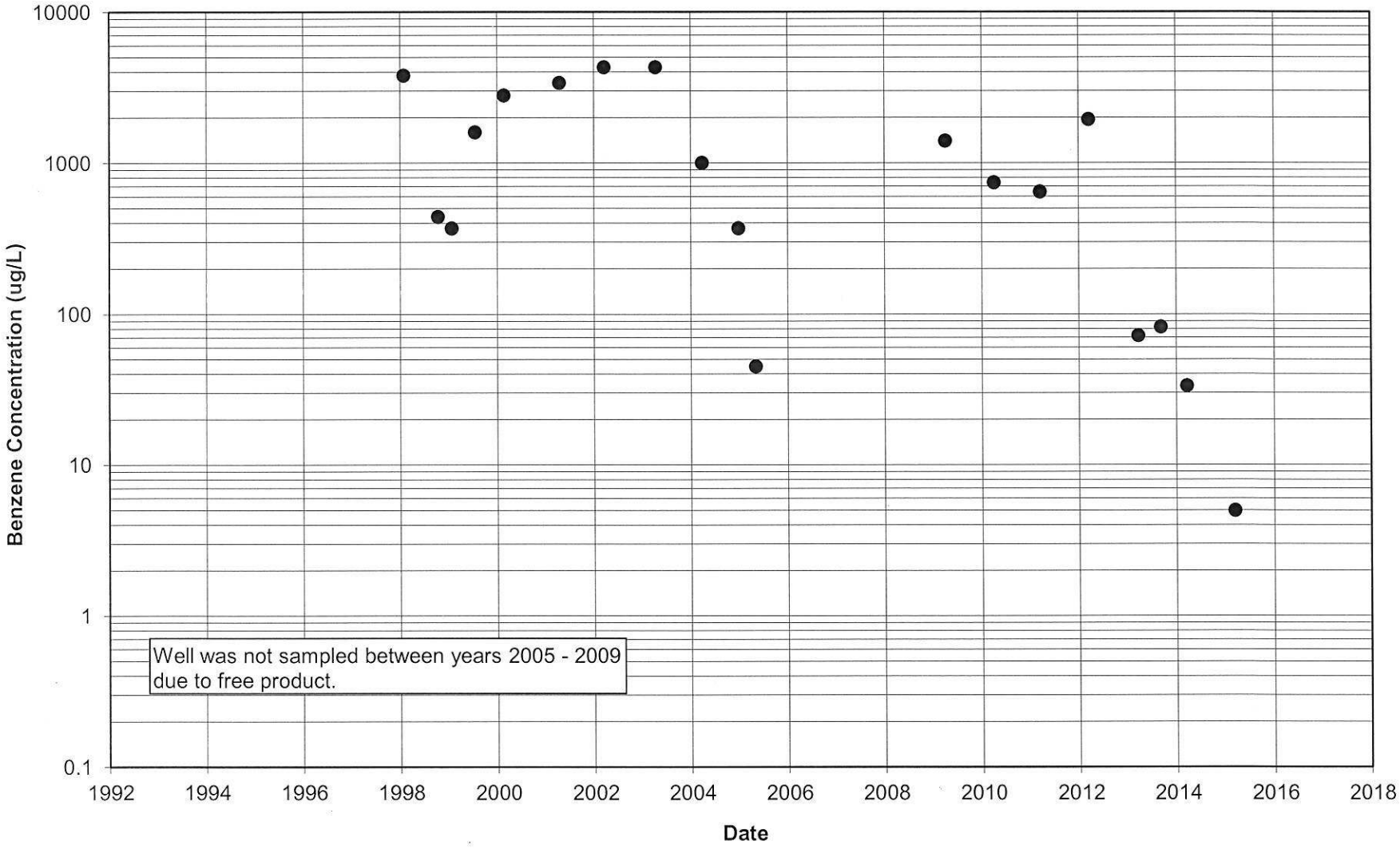
Time series plot of benzene in R-018A



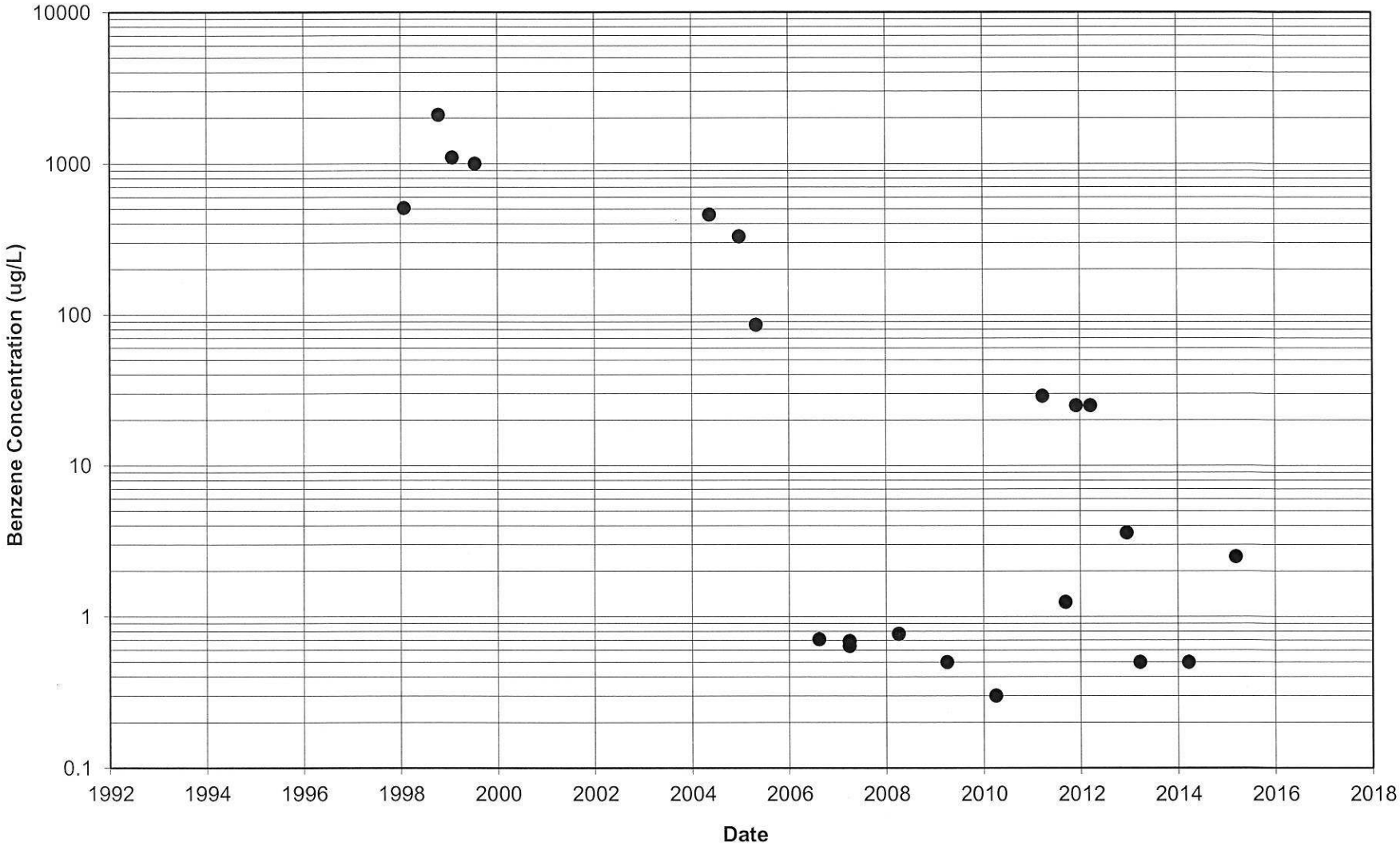
Time series plot of benzene in R-019A



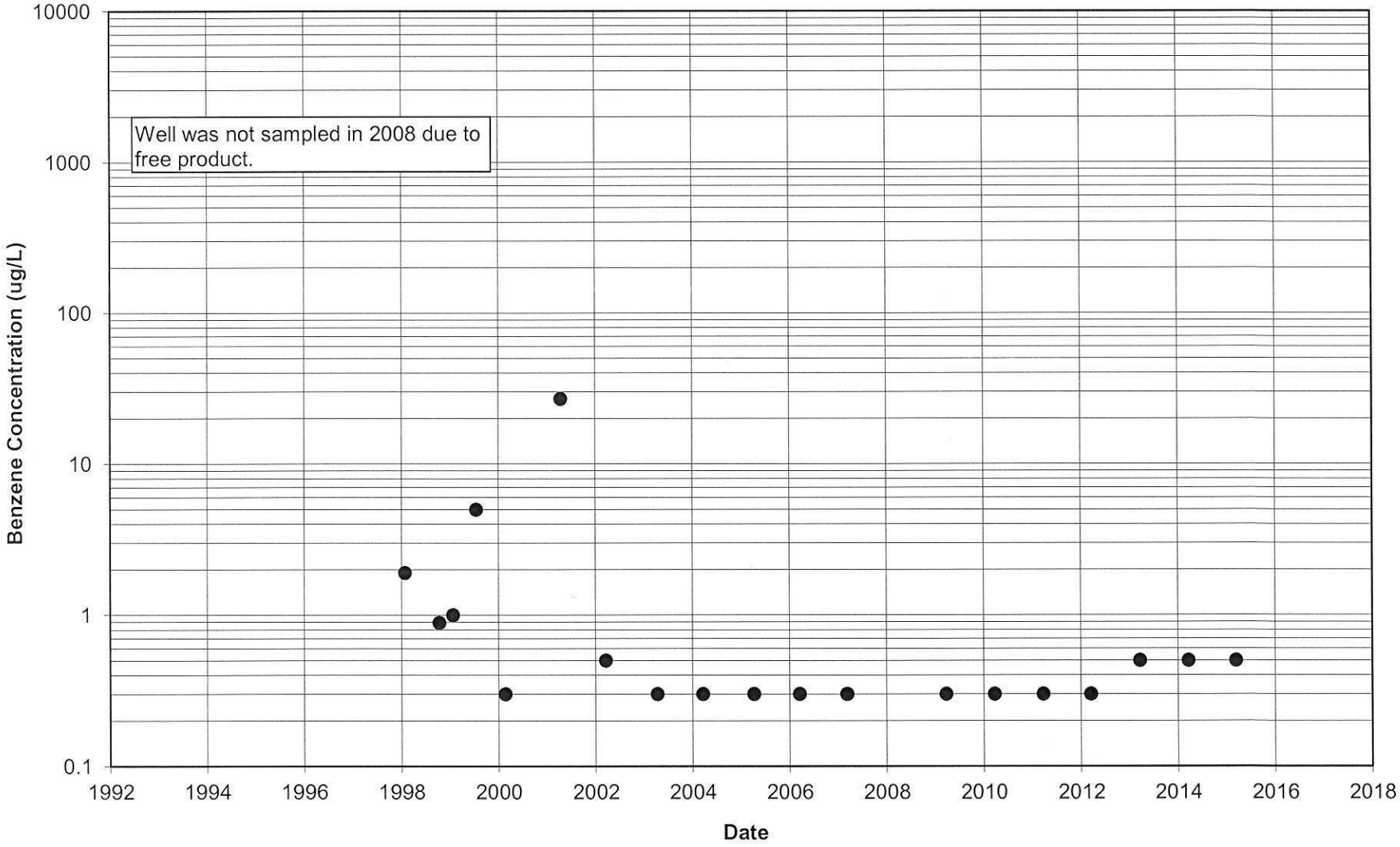
Time series plot of benzene in R-020A



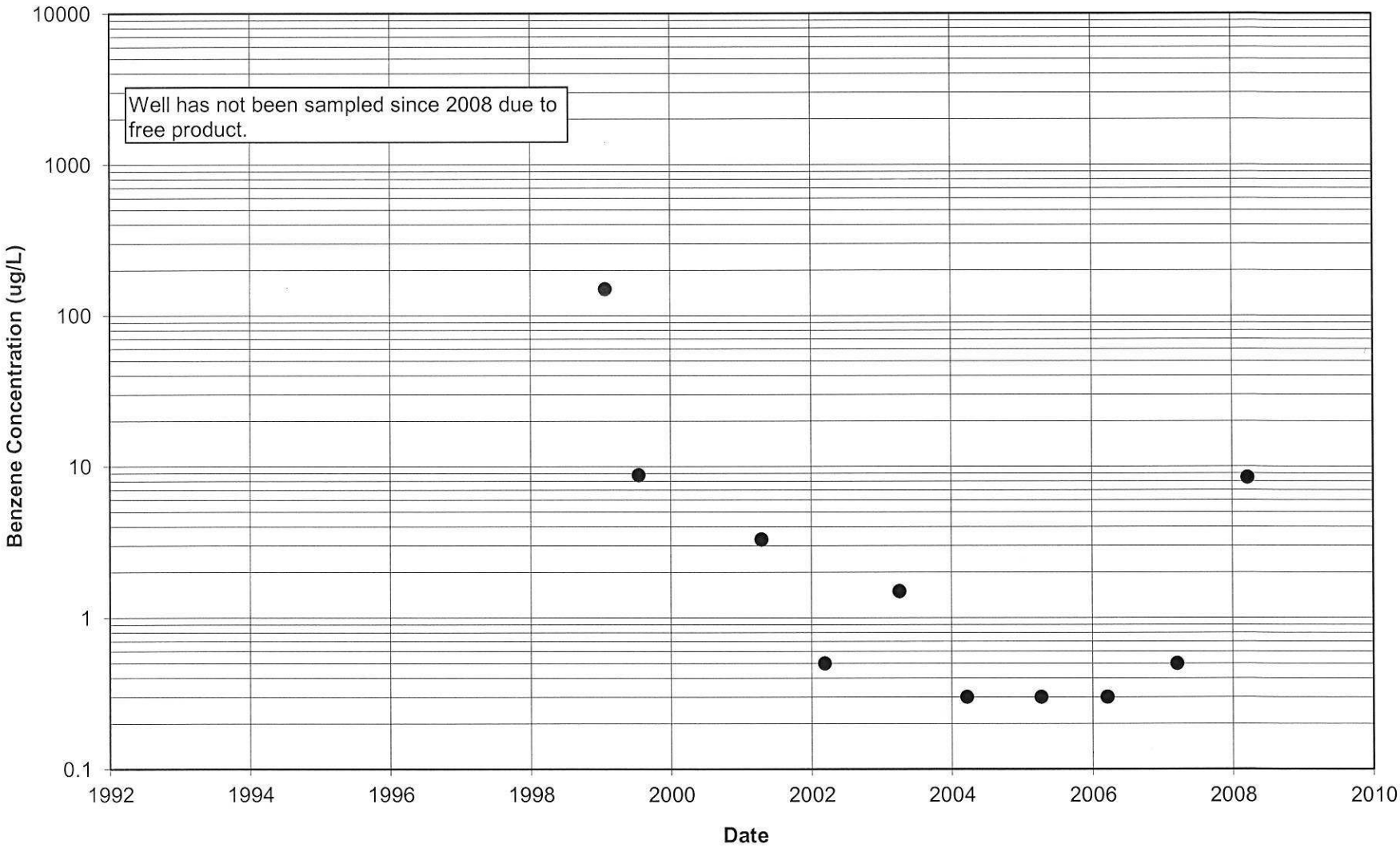
Time series plot of benzene in R-021A



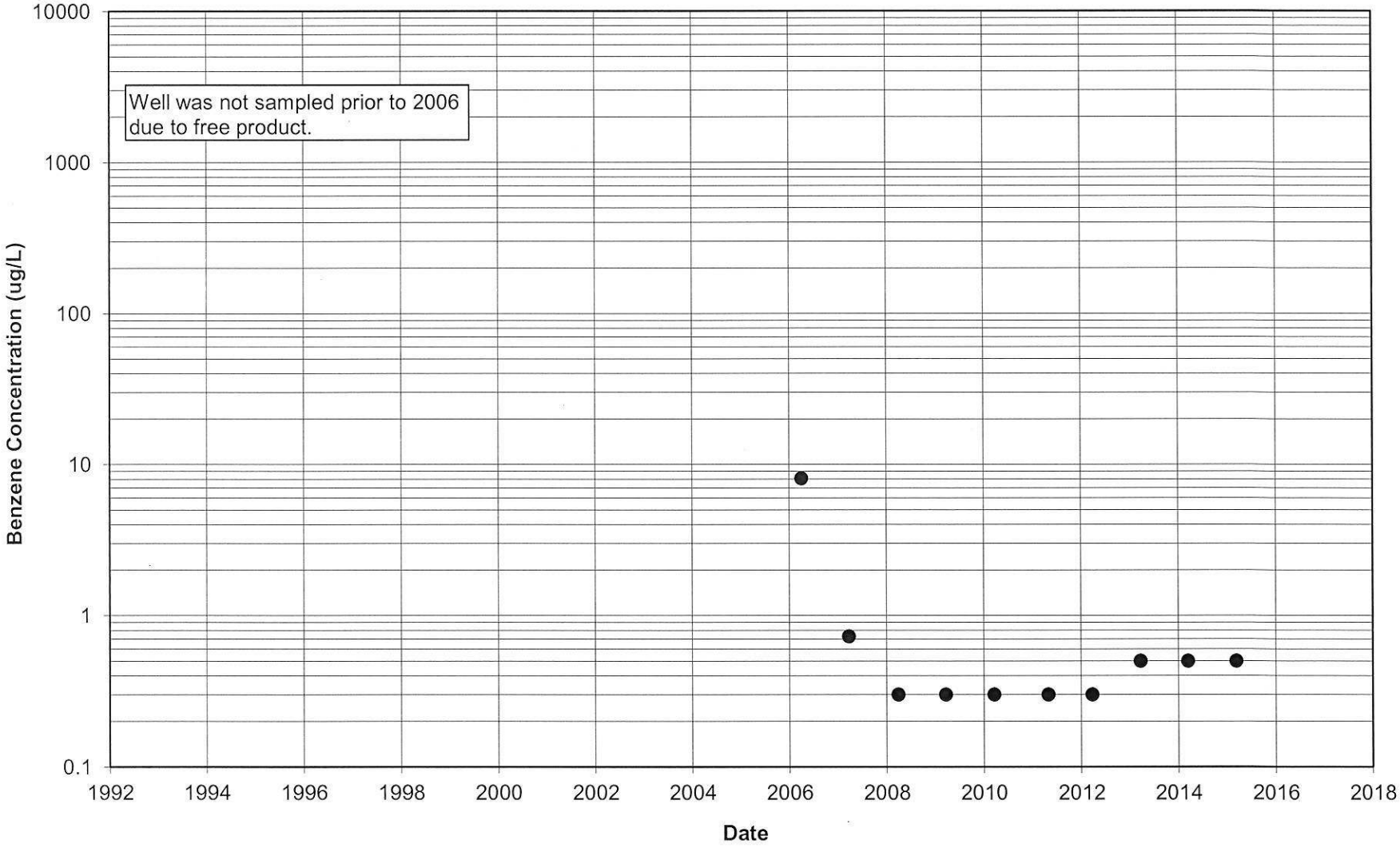
Time series plot of benzene in R-022A



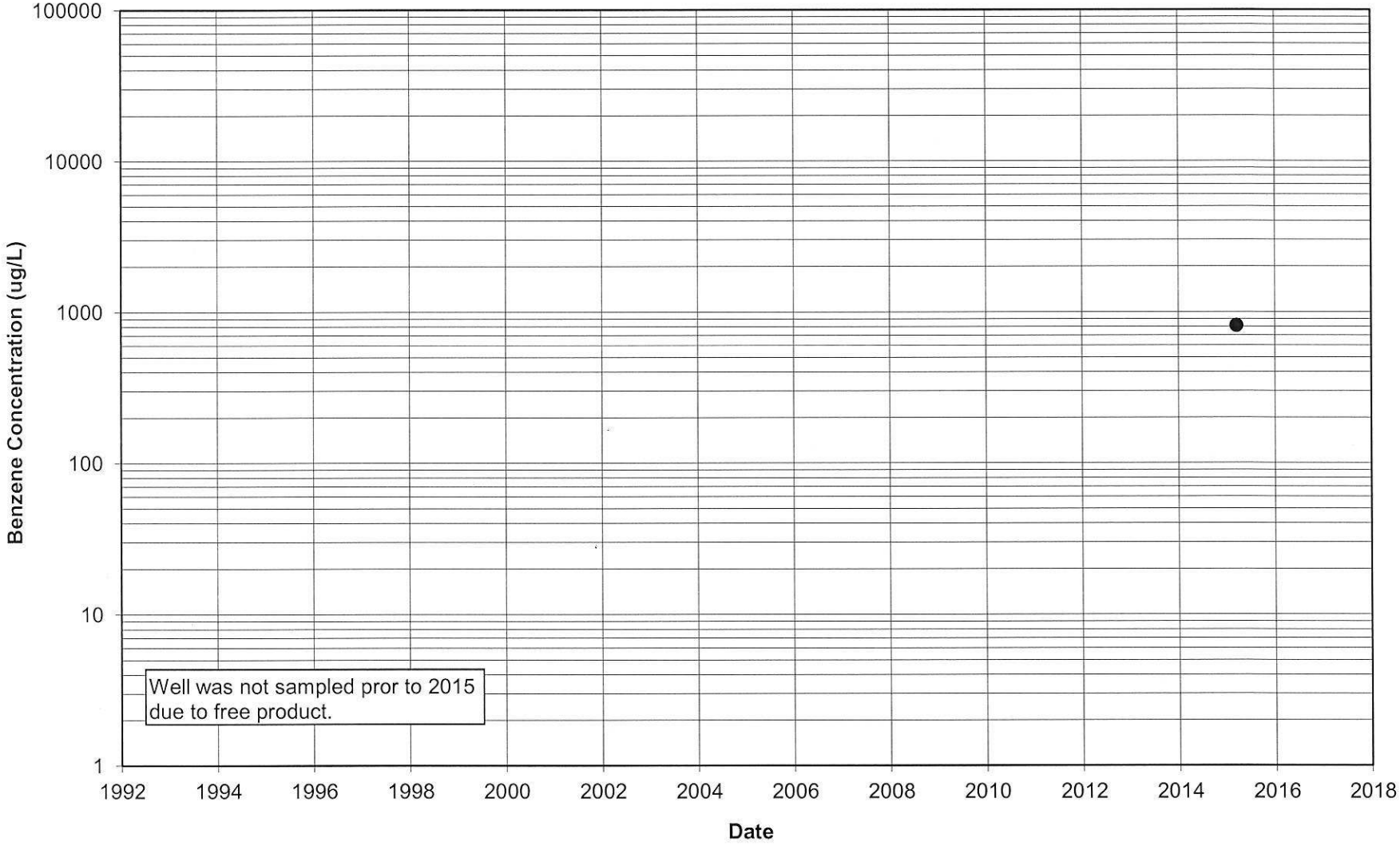
Time series plot of benzene in R-028A



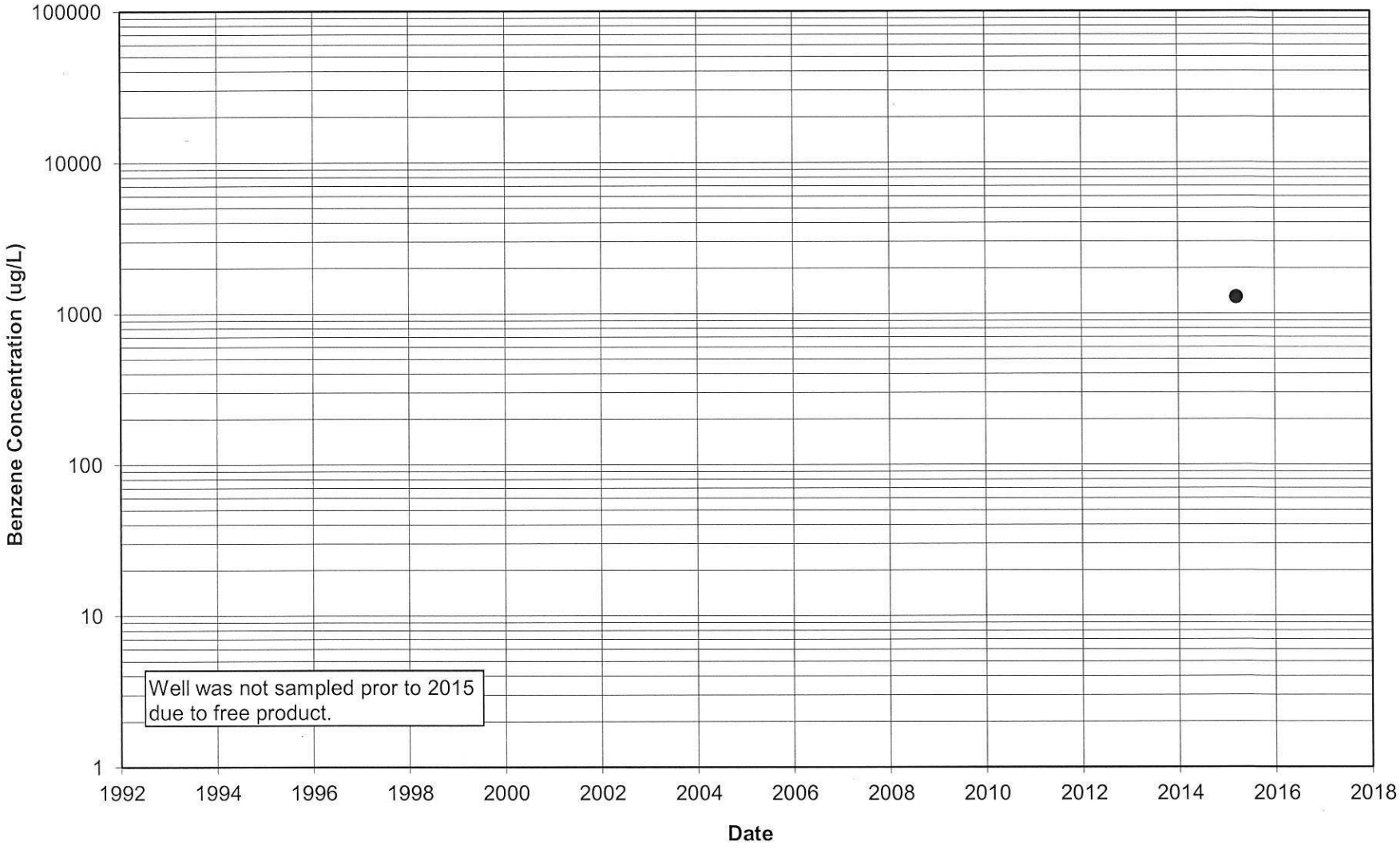
Time series plot of benzene in R-029A



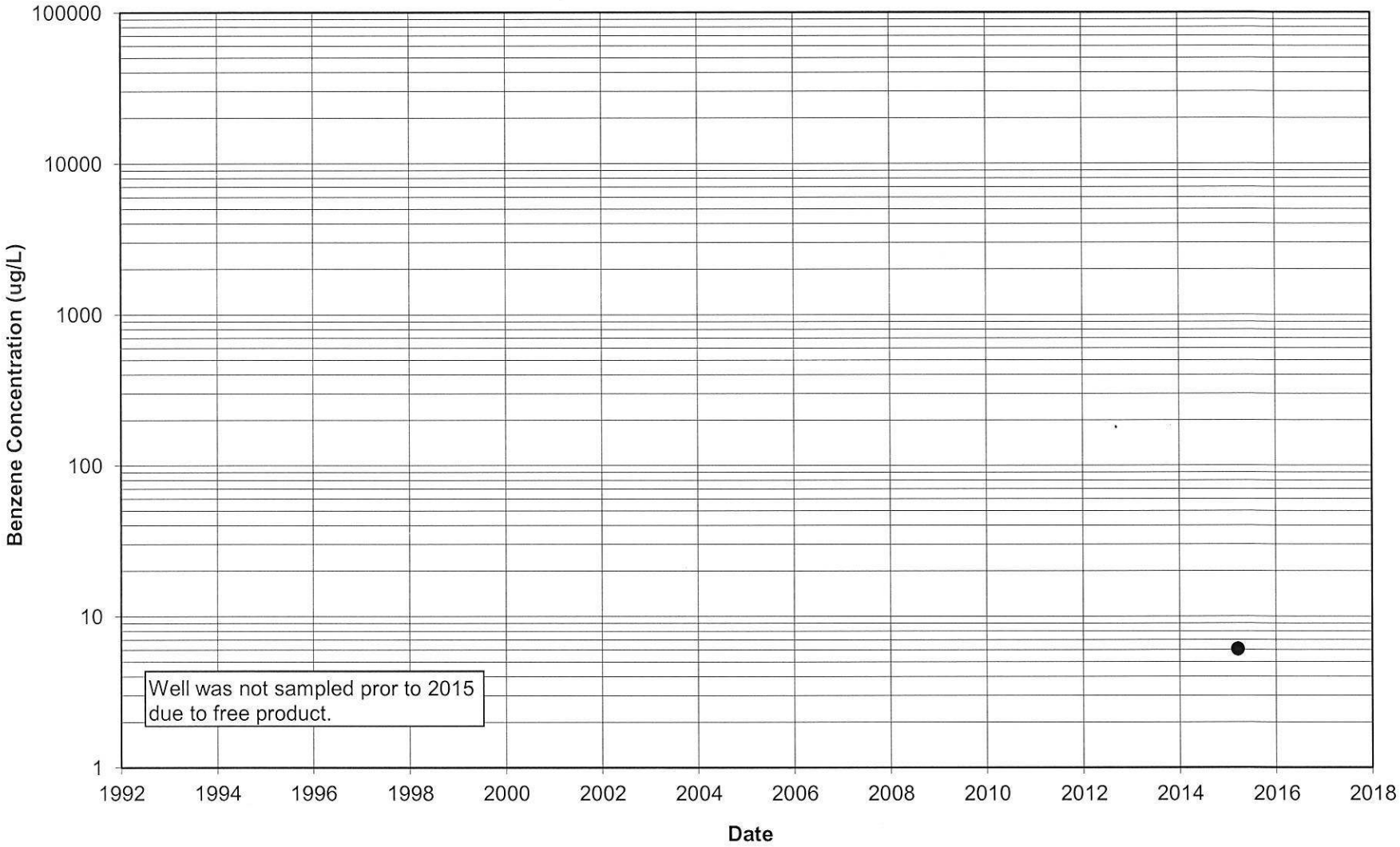
Time series plot of benzene in R-030A



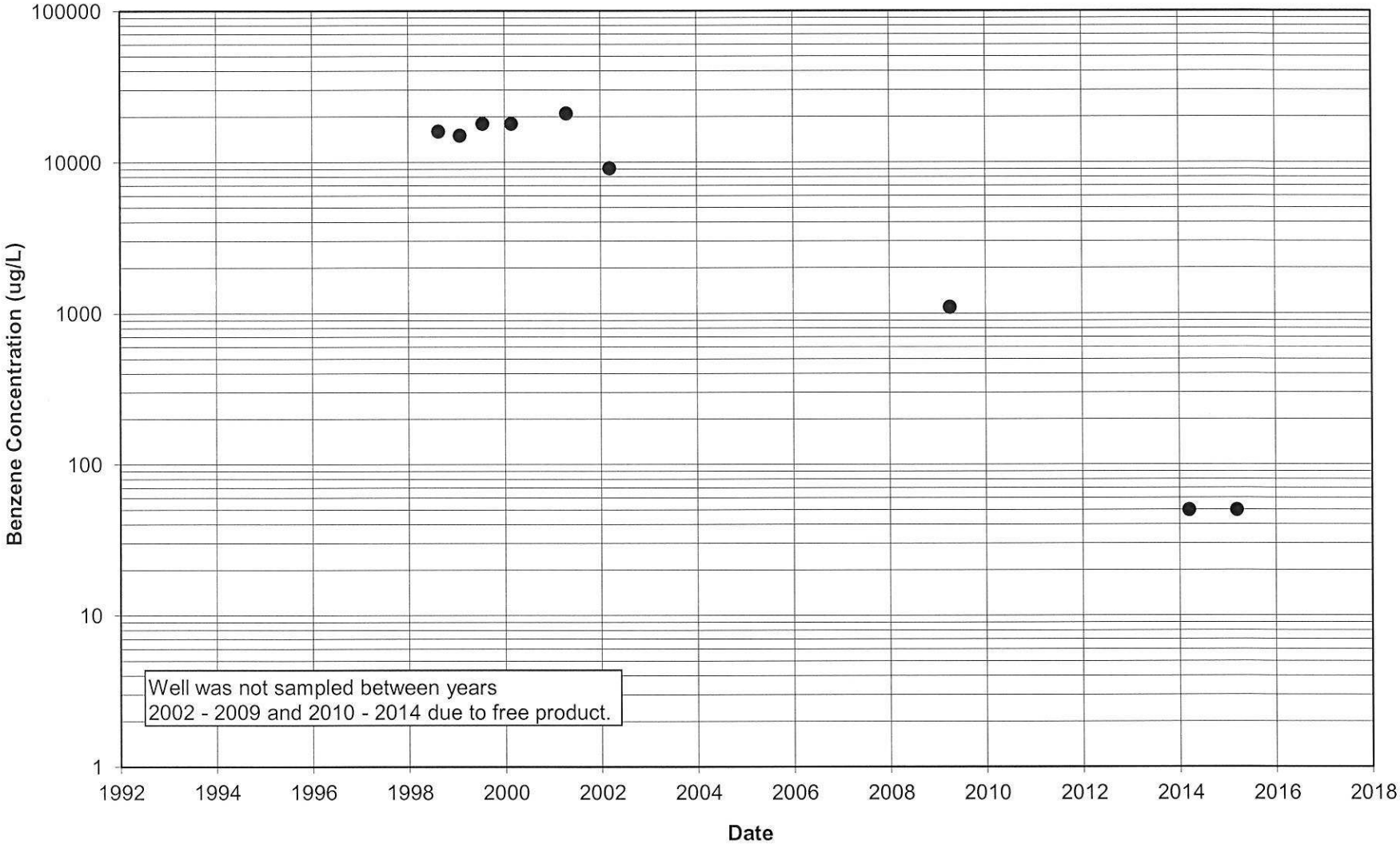
Time series plot of benzene in R-031A



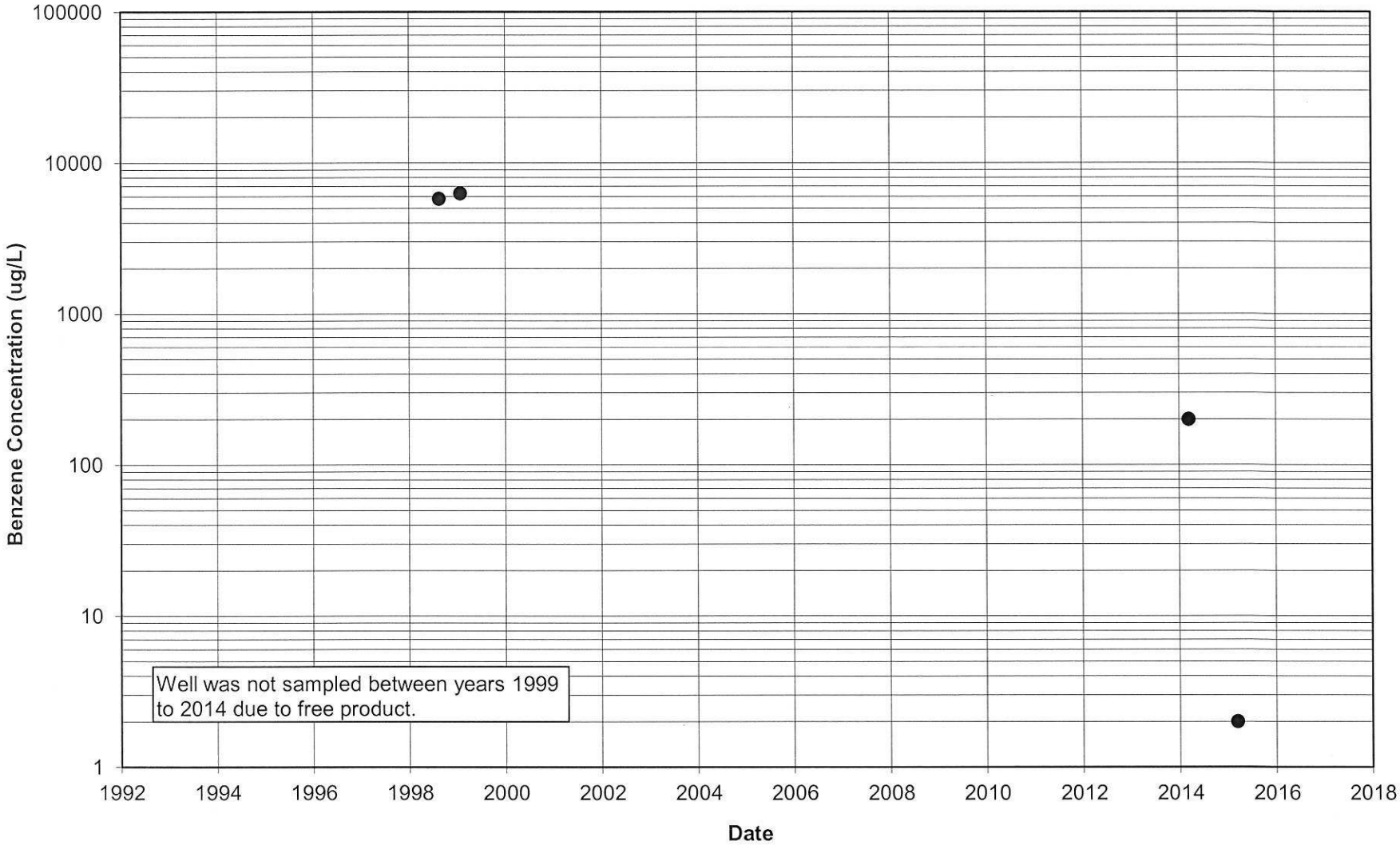
Time series plot of benzene in R-032A



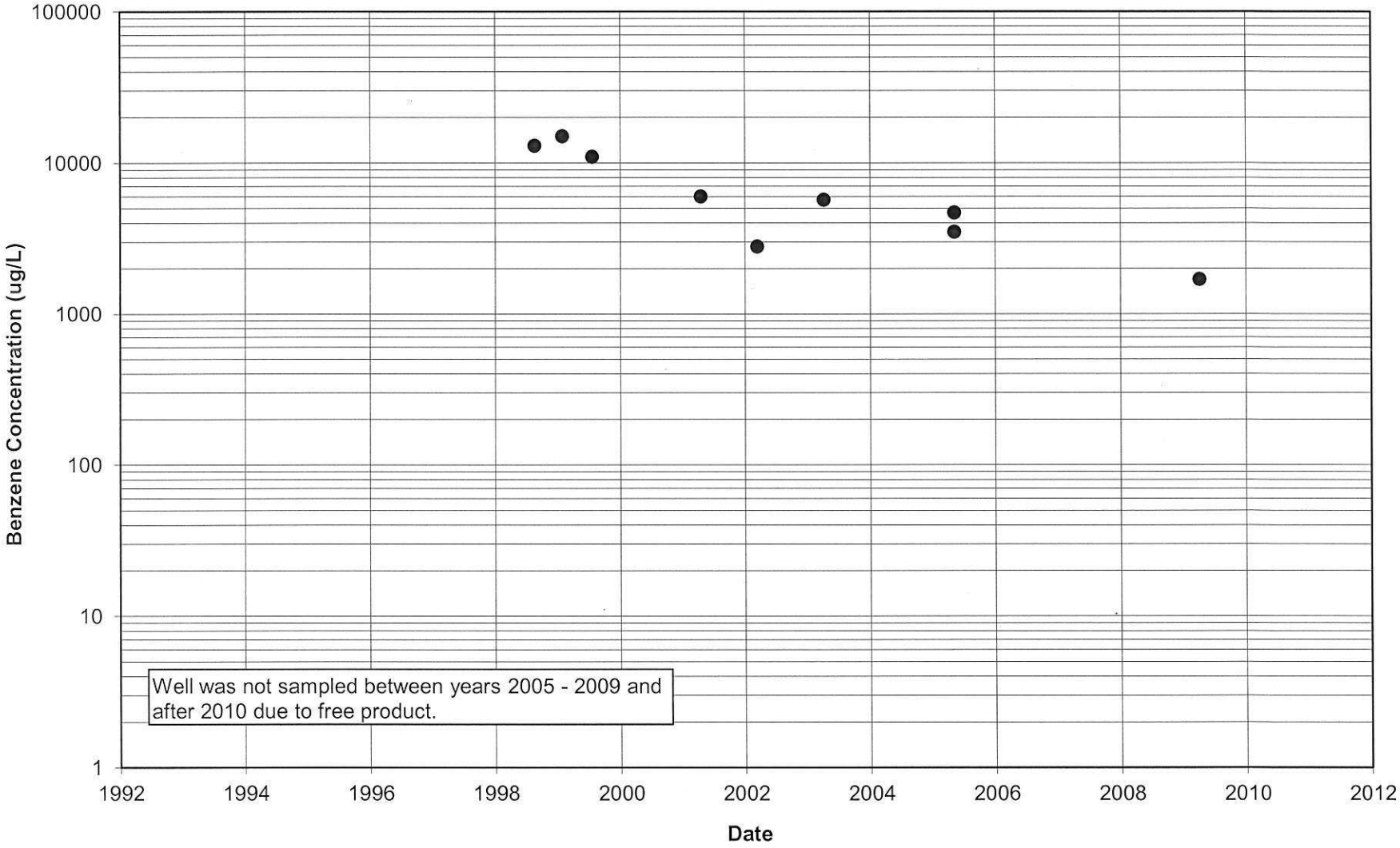
Time series plot of benzene in R-033A



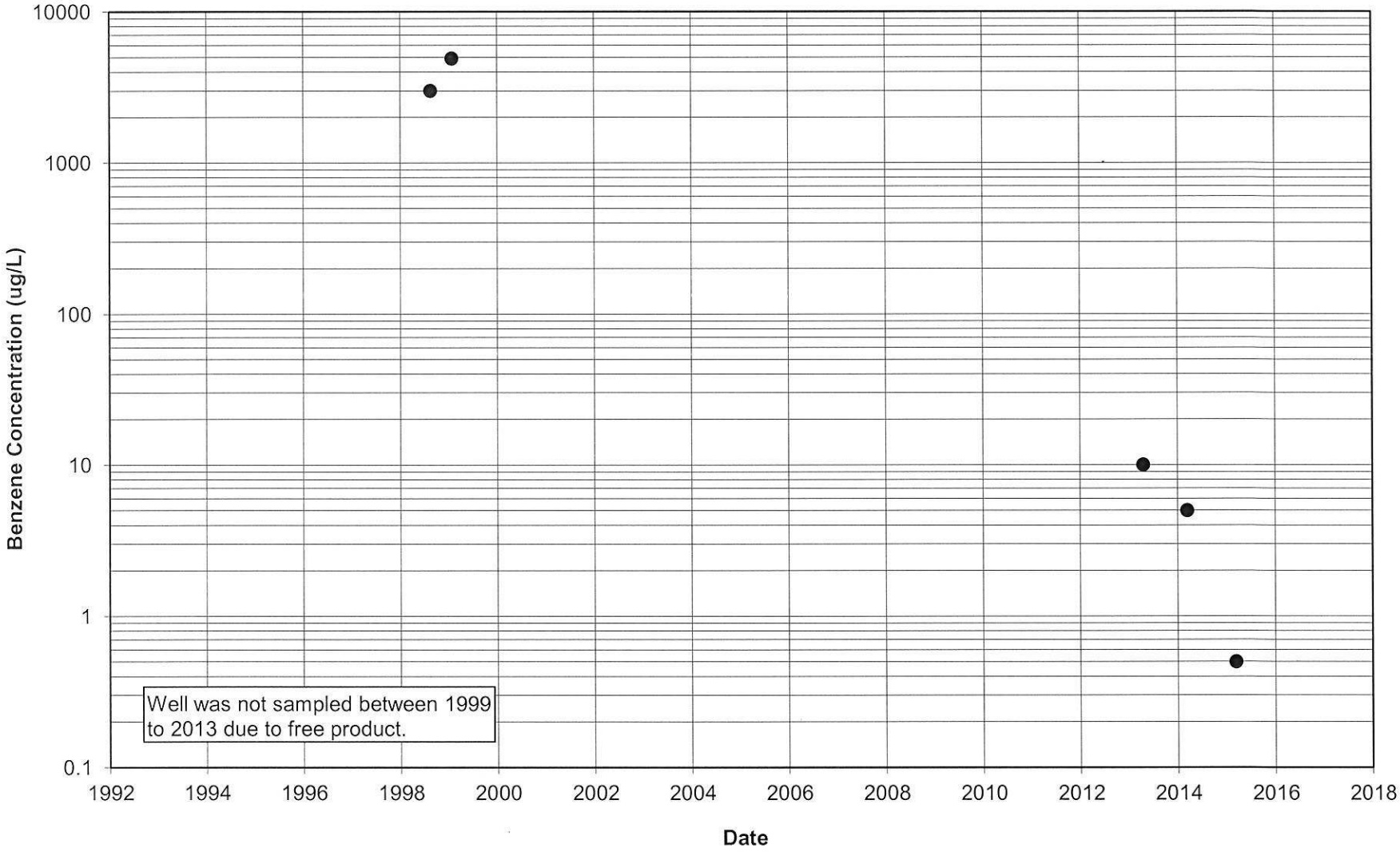
Time series plot of benzene in R-034A



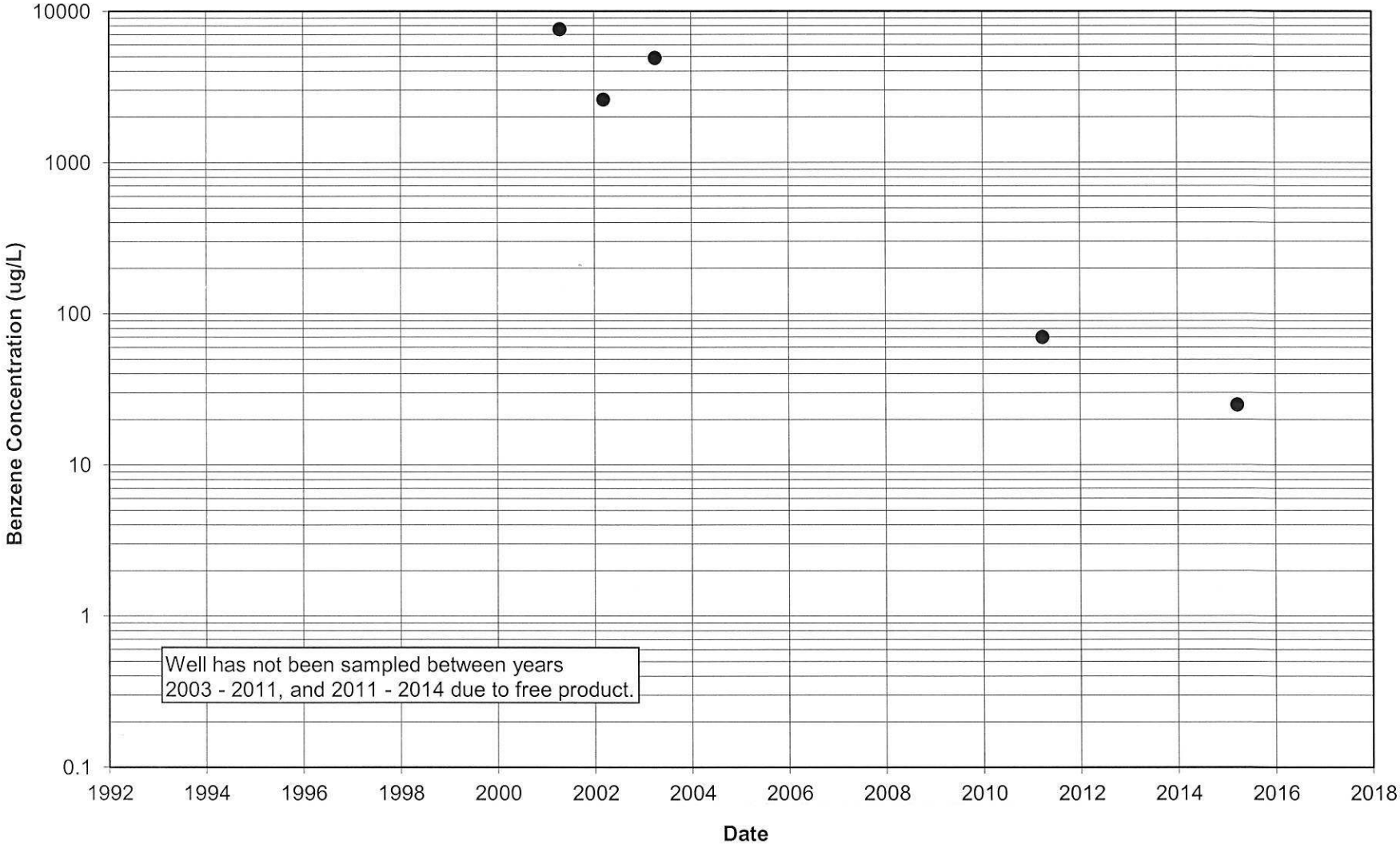
Time series plot of benzene in R-035A



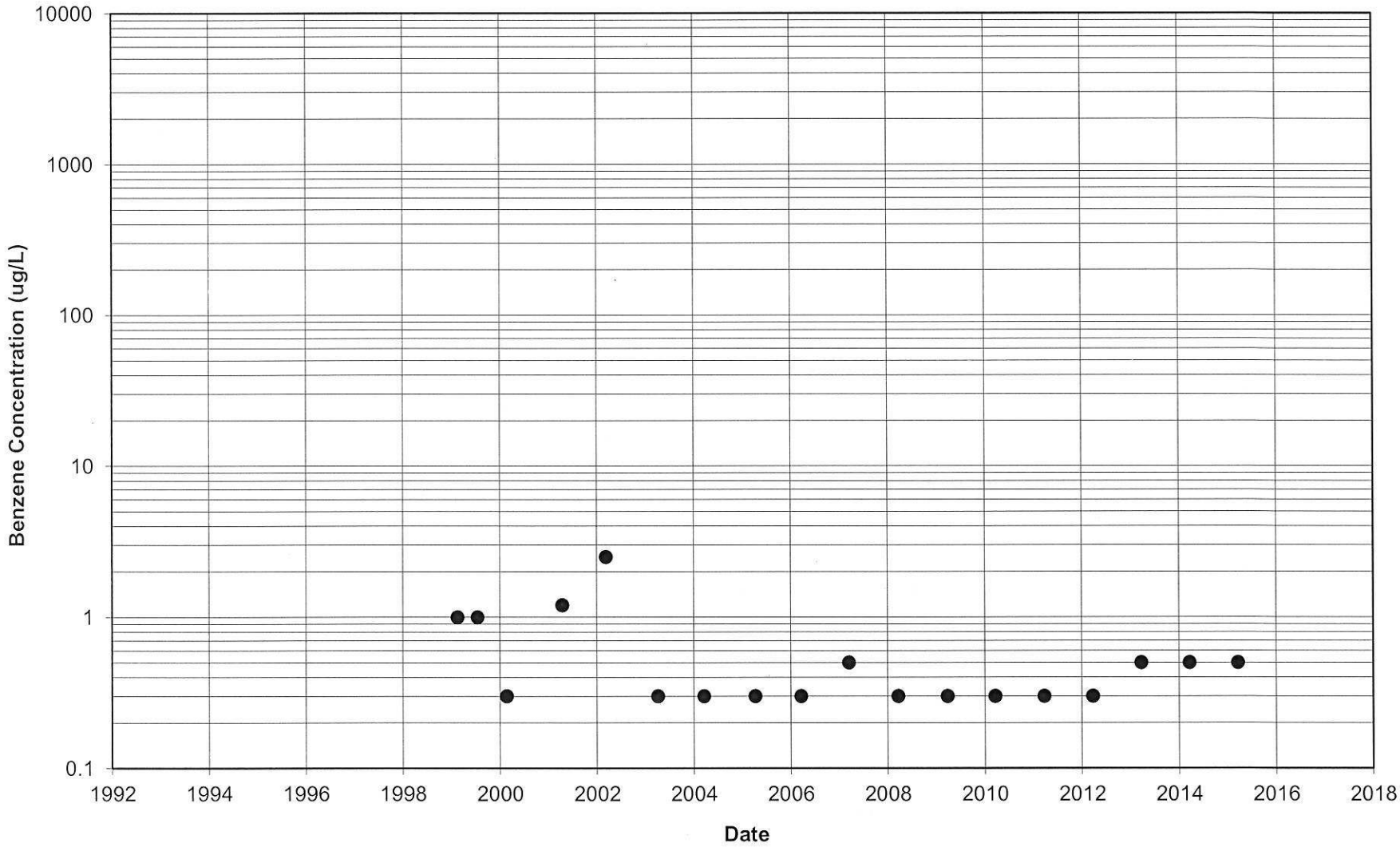
Time series plot of benzene in R-036A



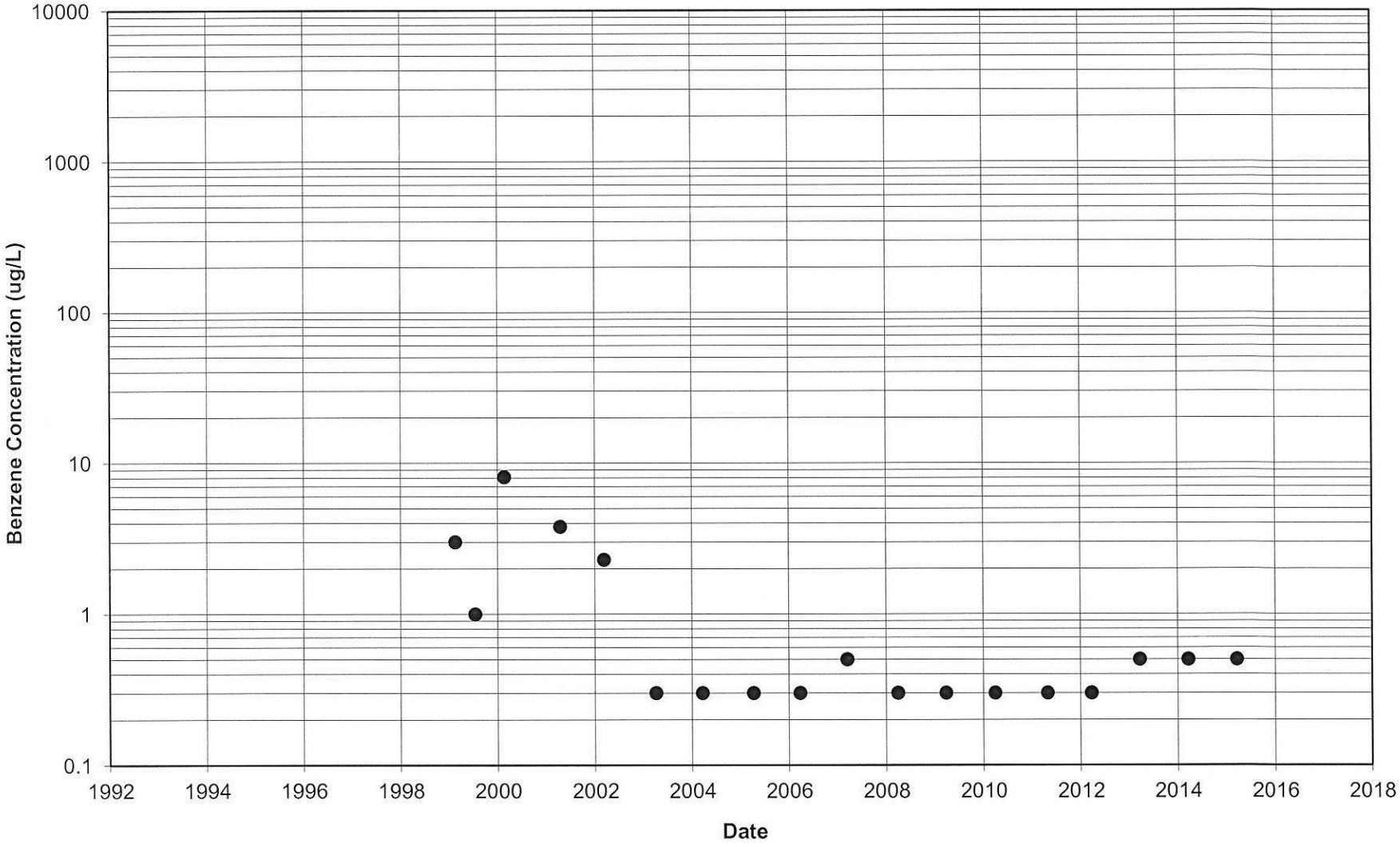
Time series plot of benzene in R-037A



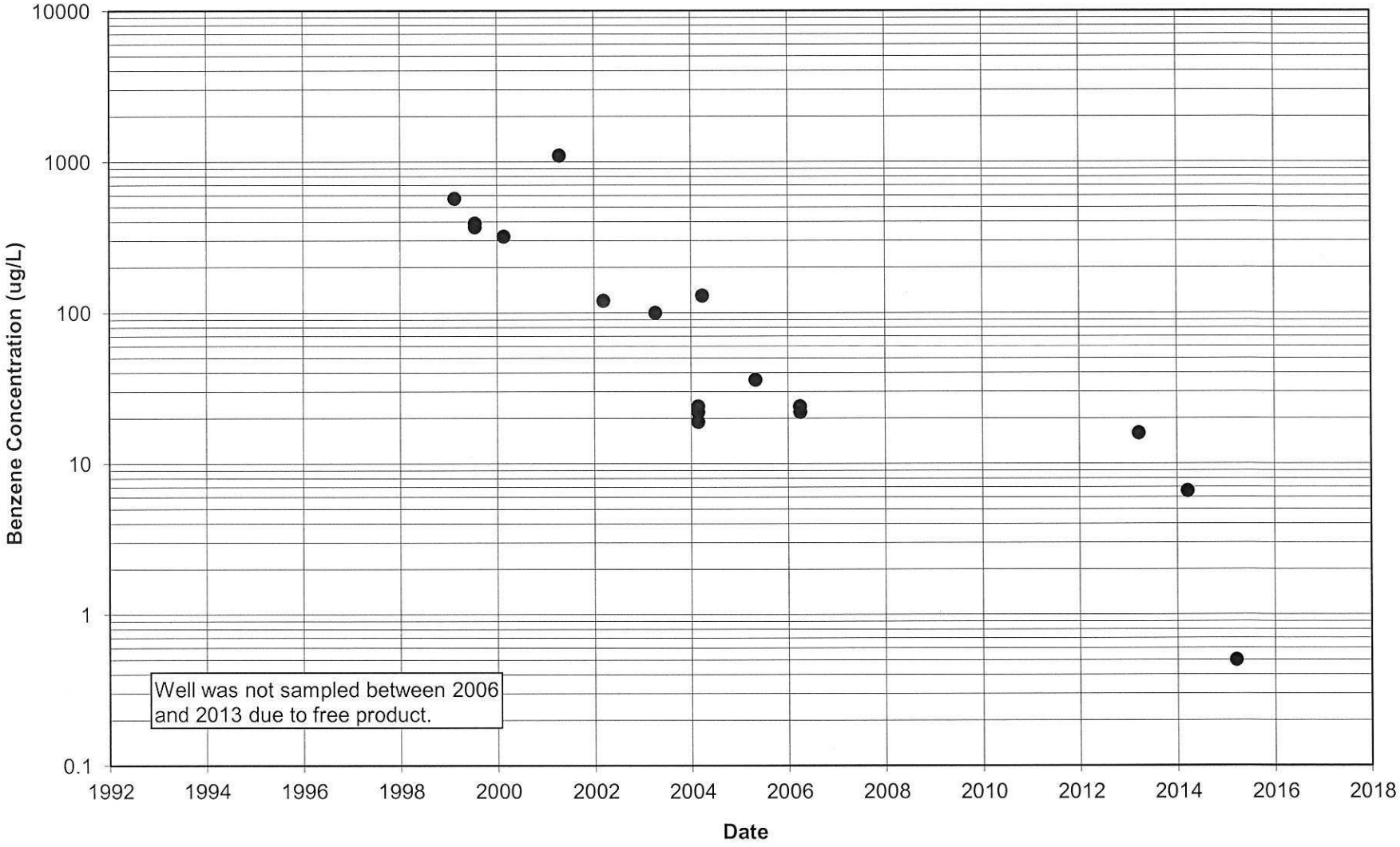
Time series plot of benzene in R-044A



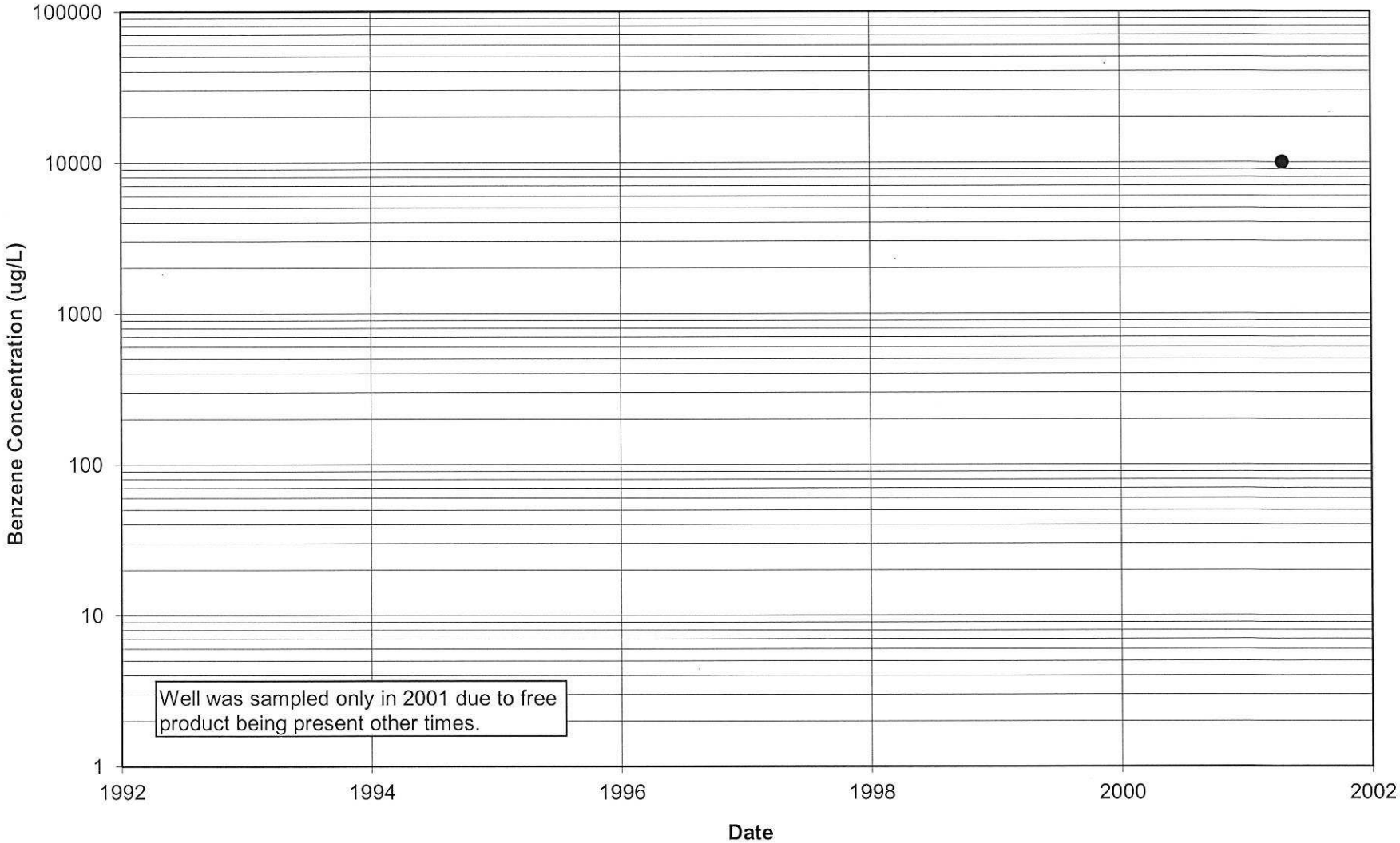
Time series plot of benzene in R-045A

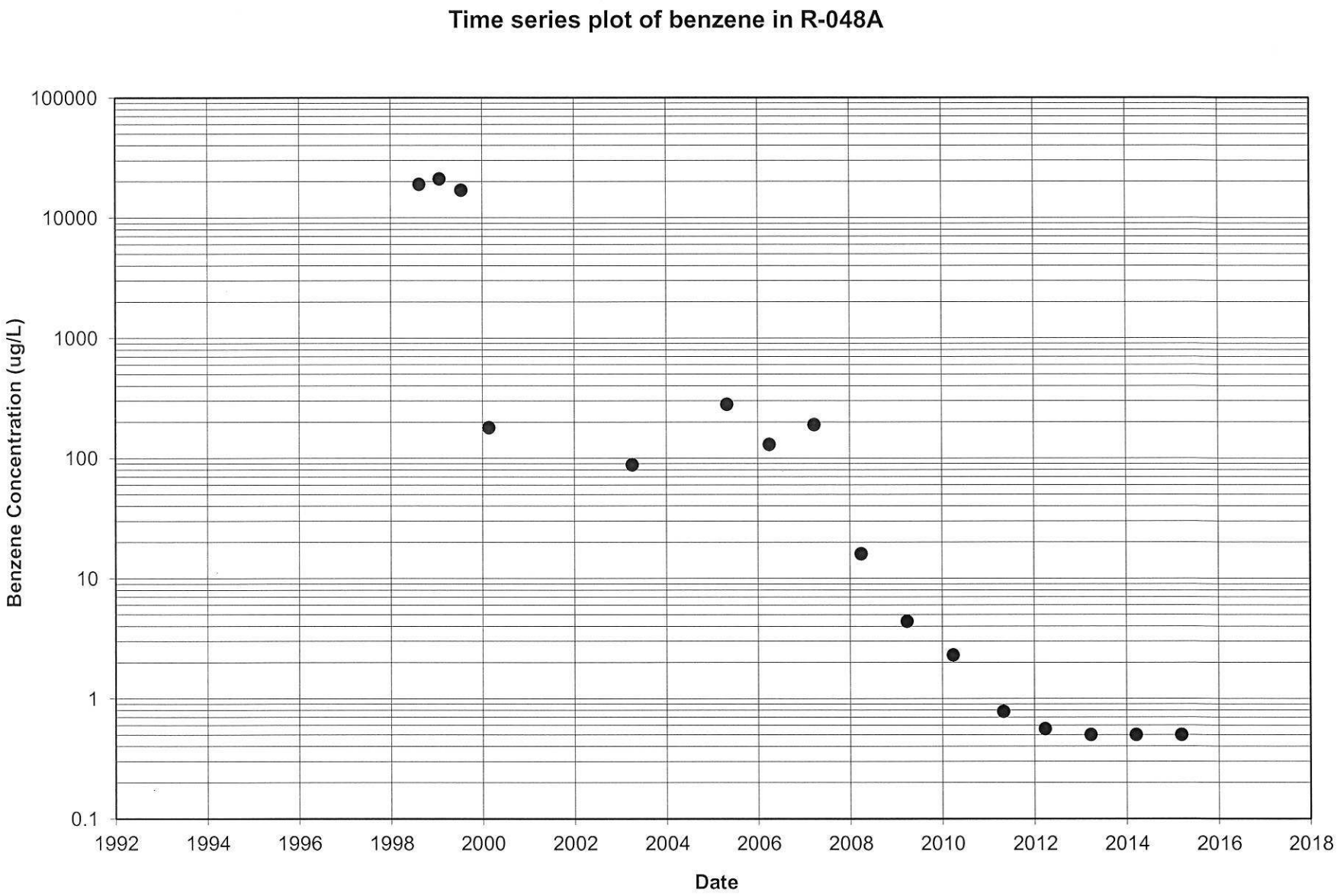


Time series plot of benzene in R-046A

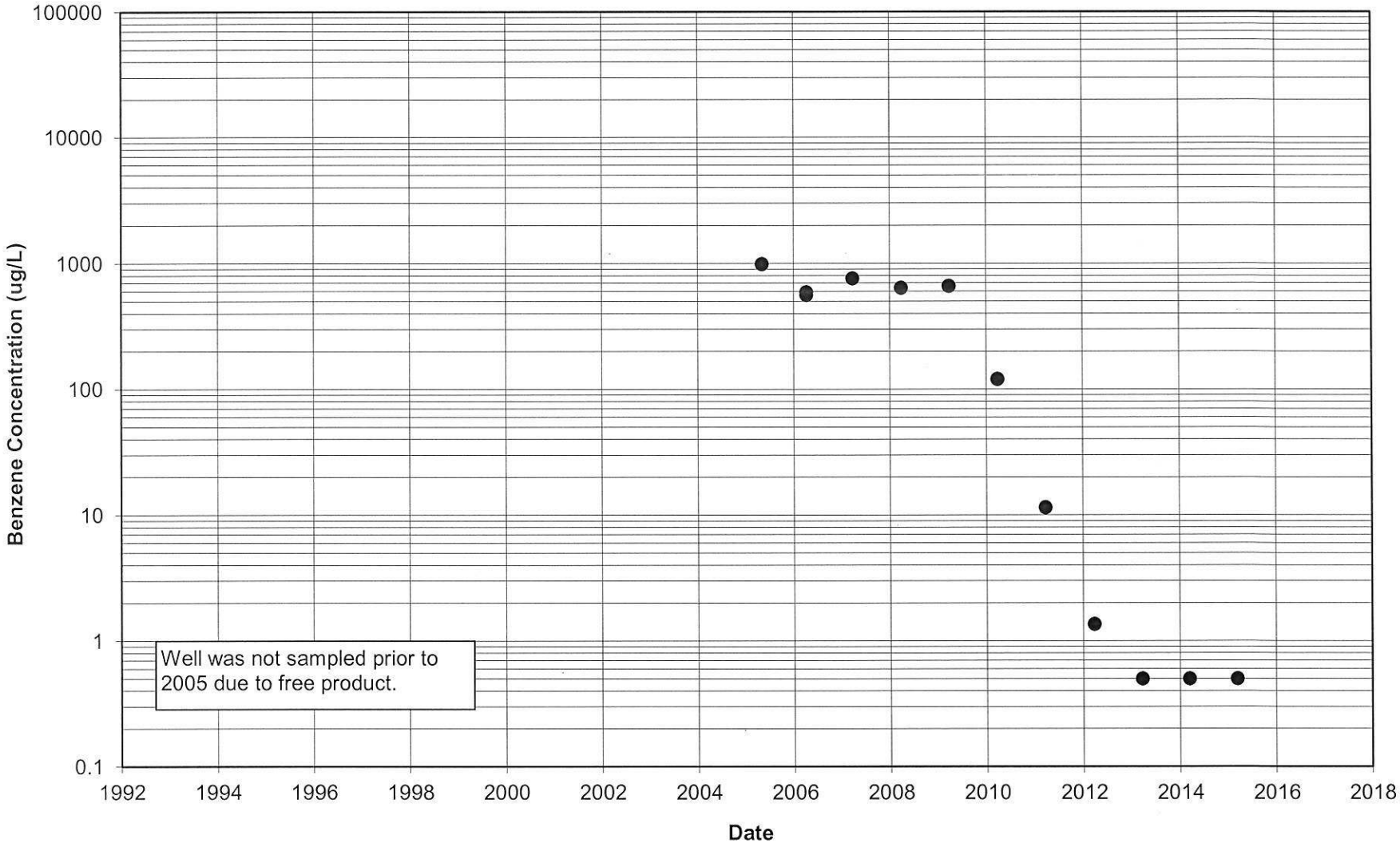


Time series plot of benzene in R-047A

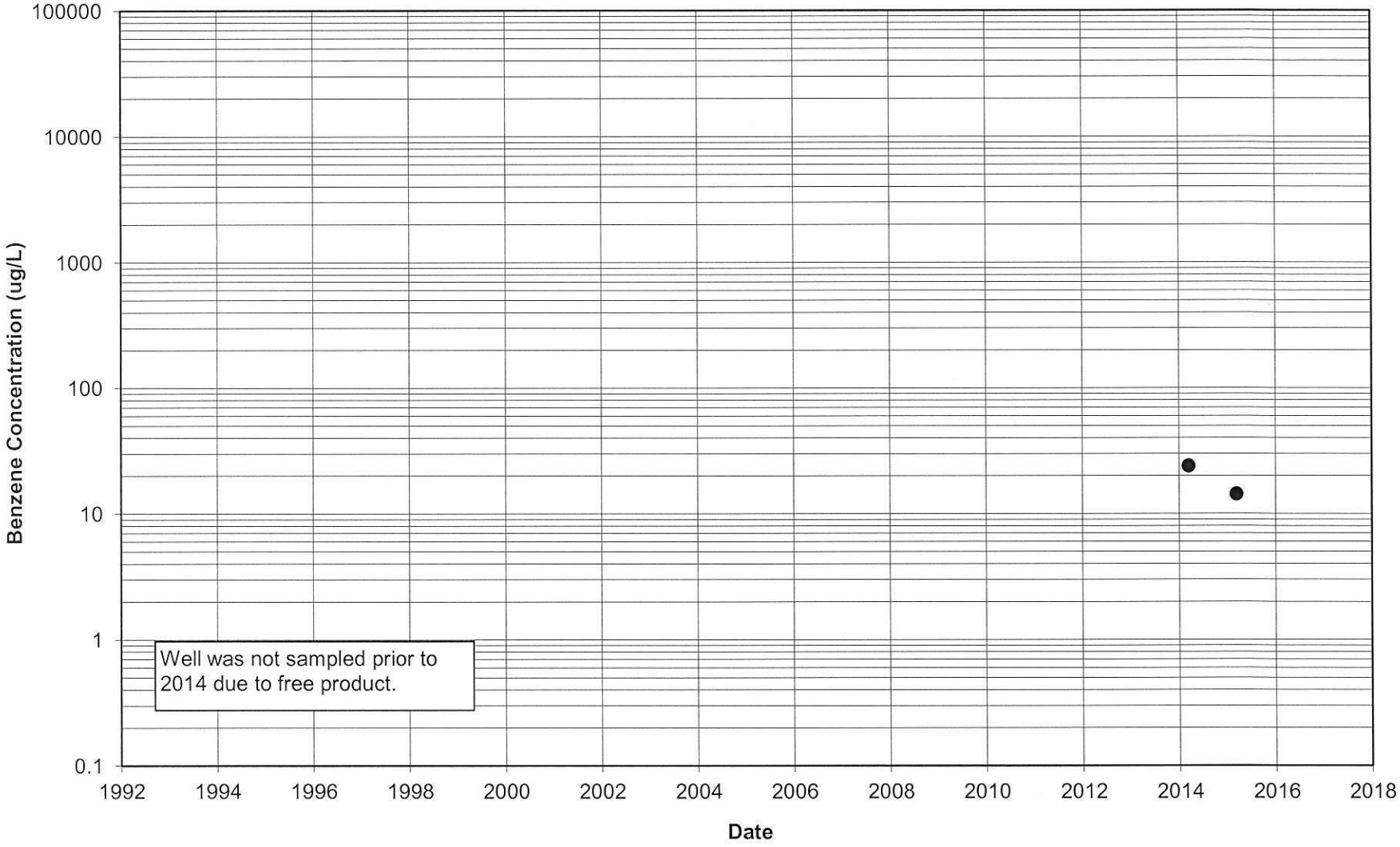



Time series plot of benzene in R-048A
Benzene Concentration (ug/L)
100000
10000
1000
100
10
1
0.1
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
Date

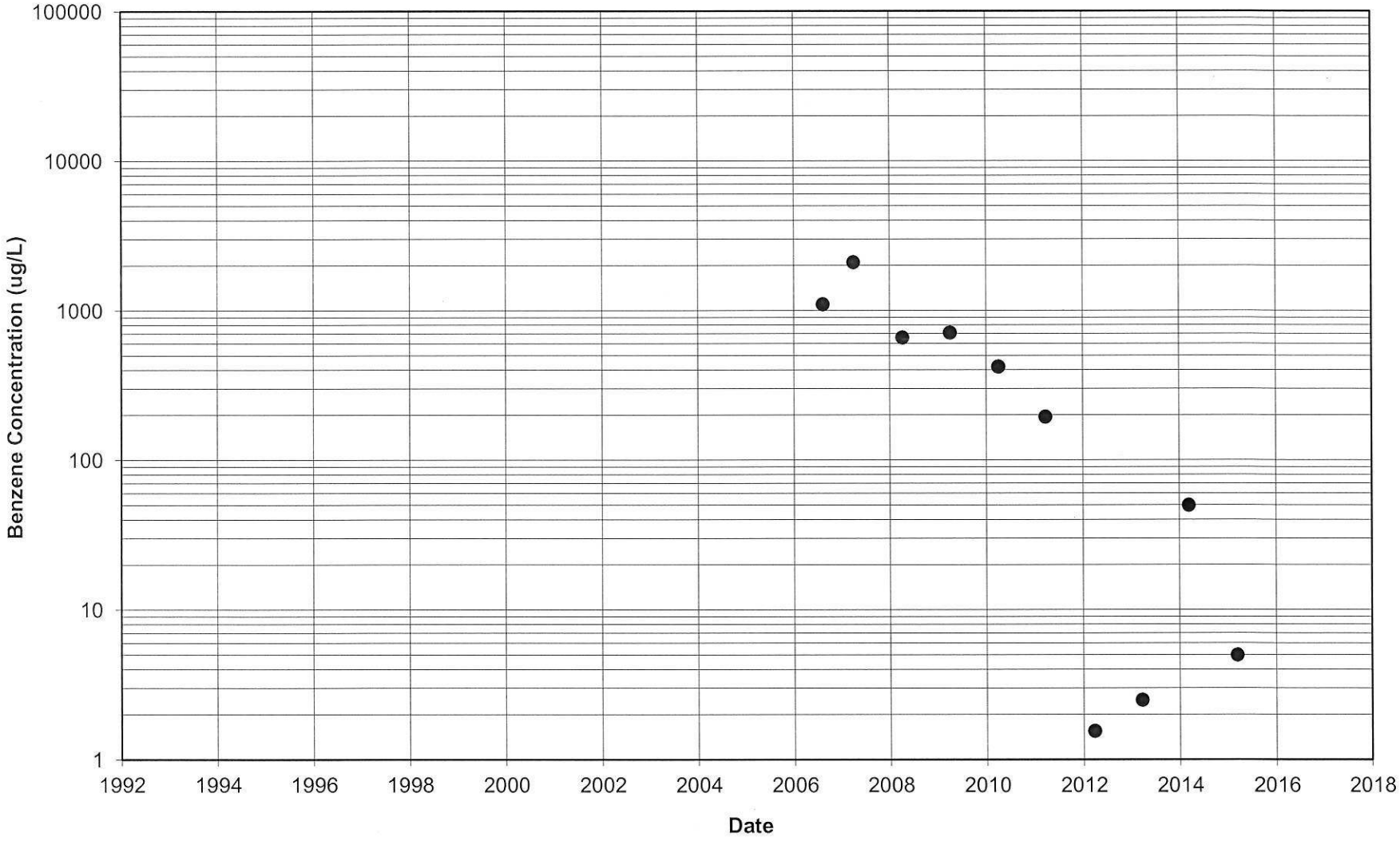
Time series plot of benzene in R-049A



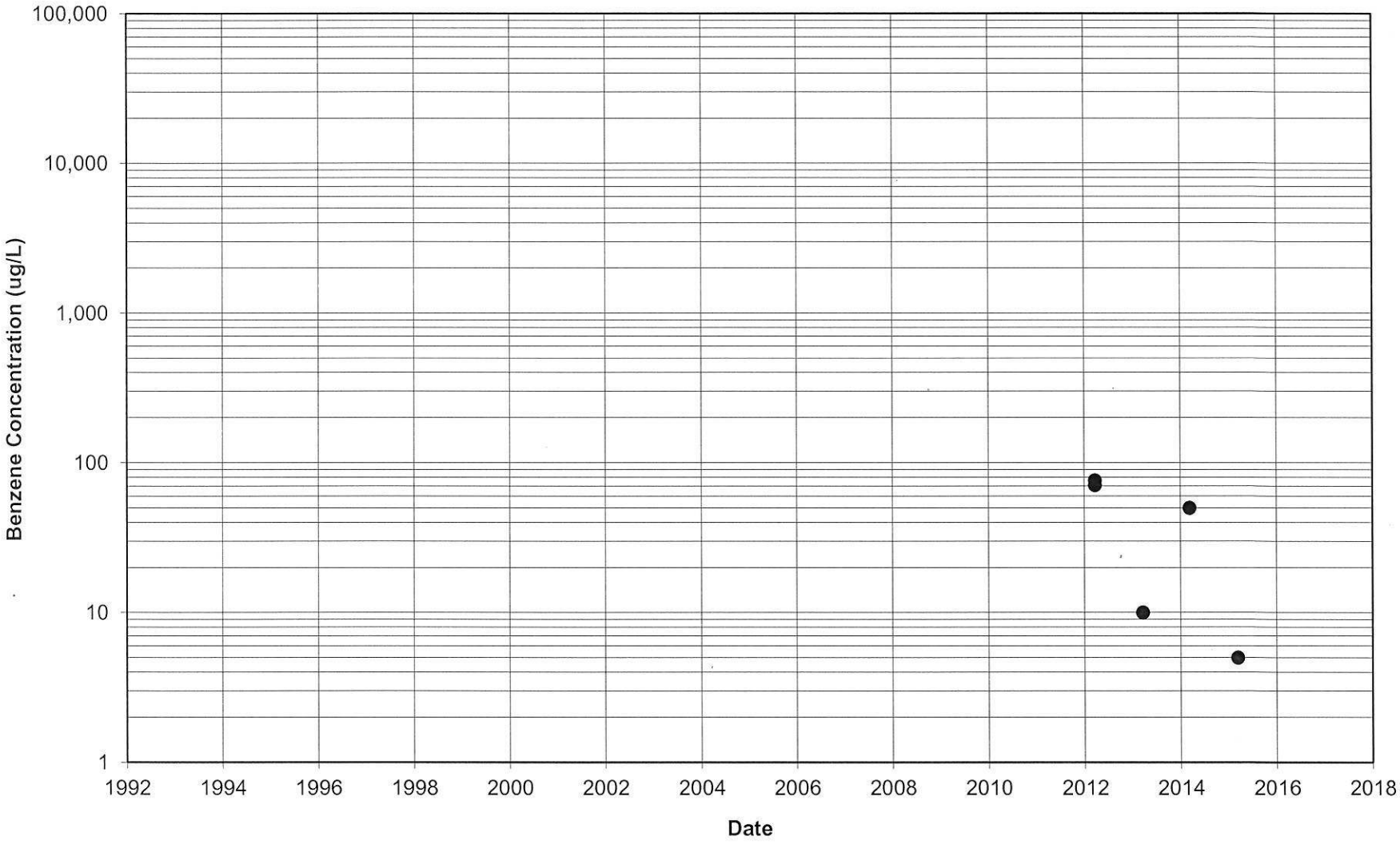
Time series plot of benzene in R-050A



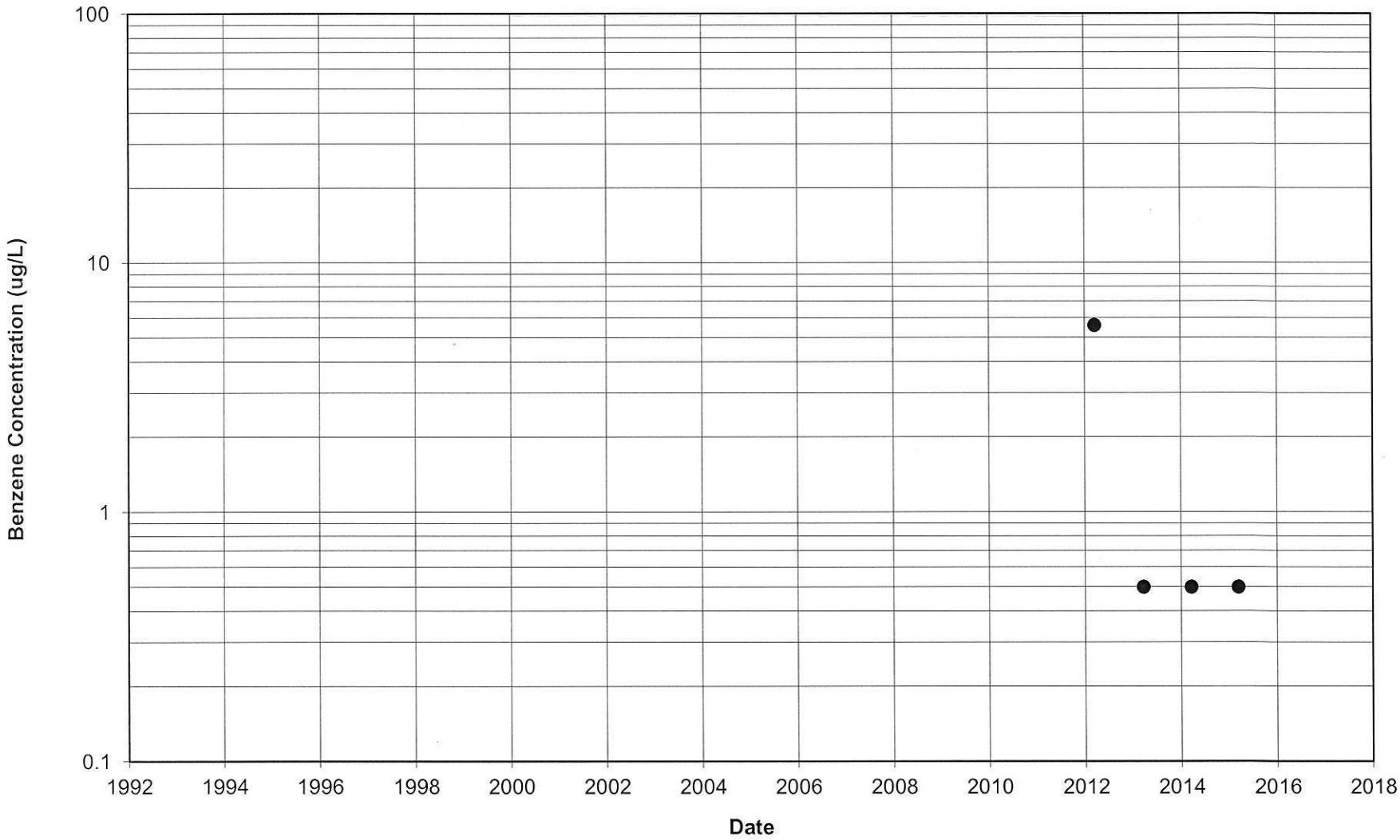
Time series plot of benzene in PCM-508A



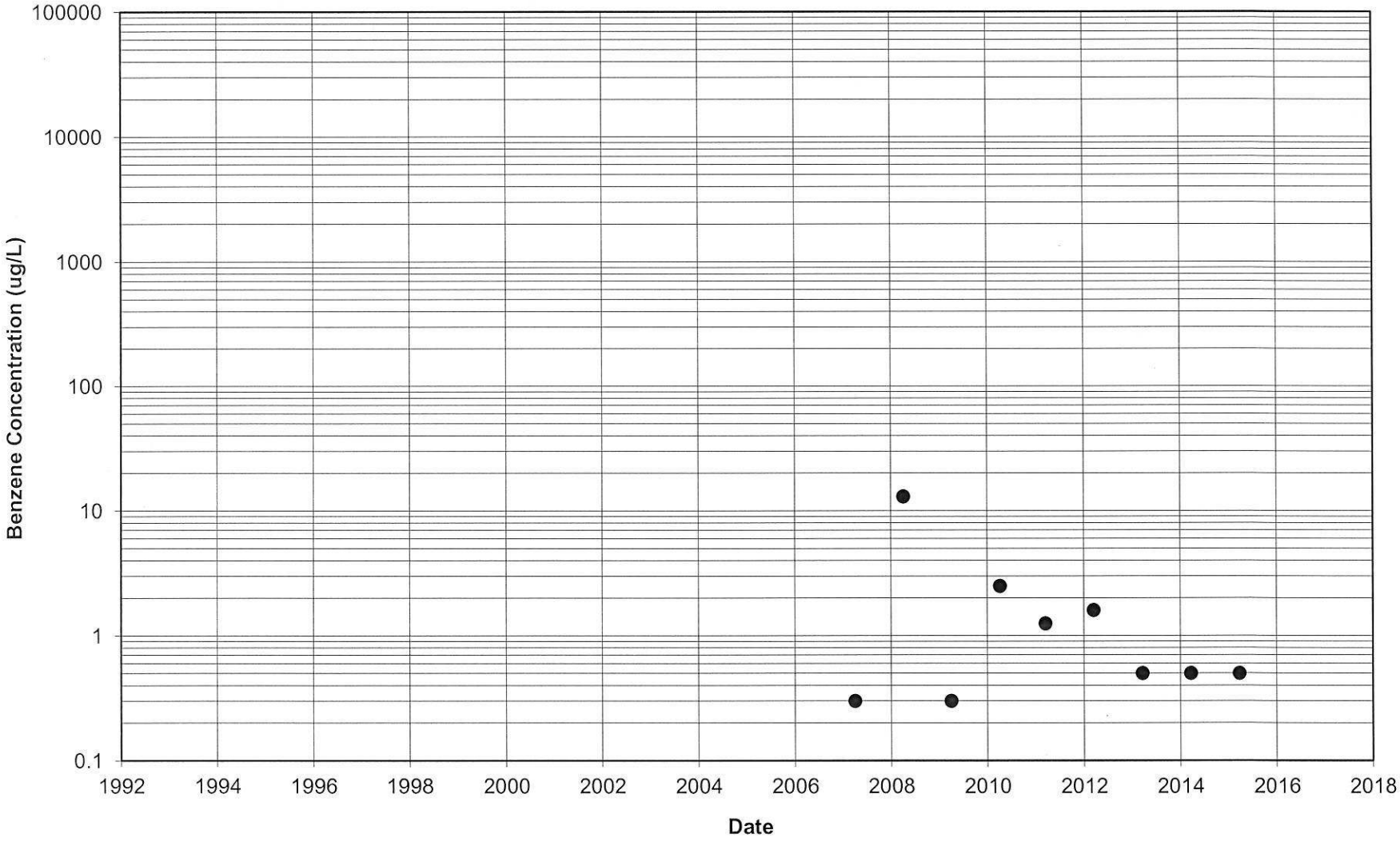
Time series plot of benzene in PCM-508B



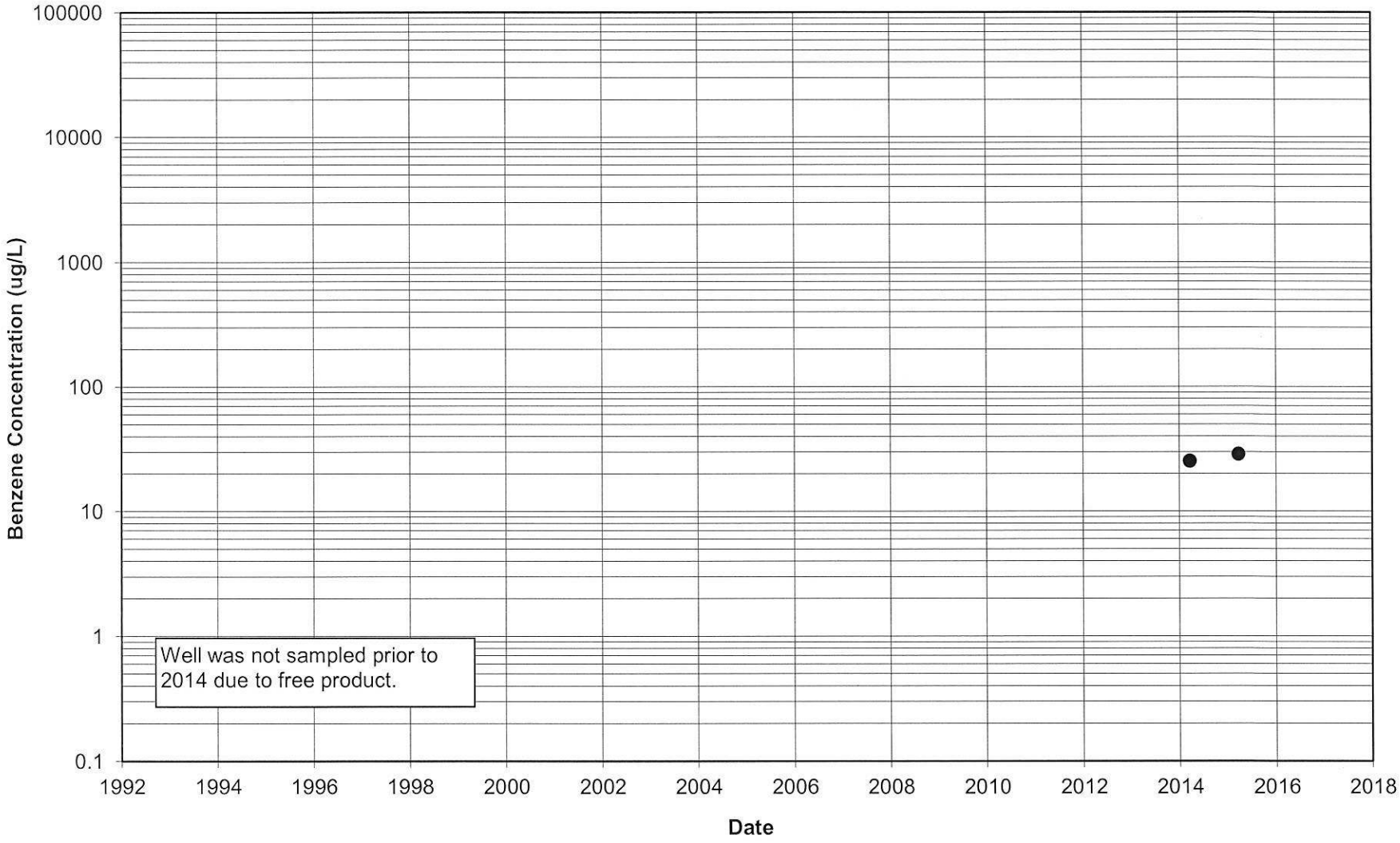
Time series plot of benzene in PCM-509B



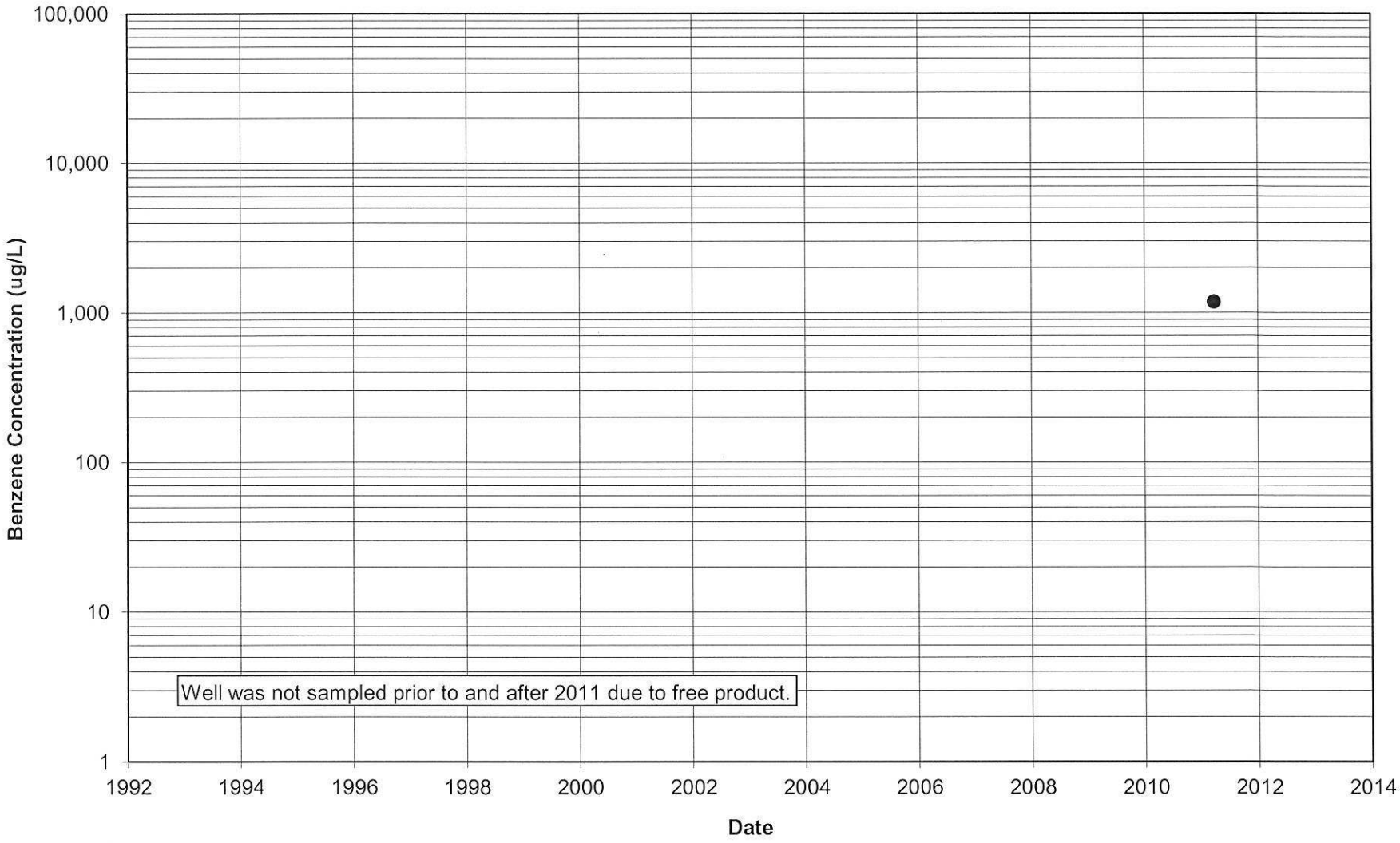
Time series plot of benzene in PCM-510A



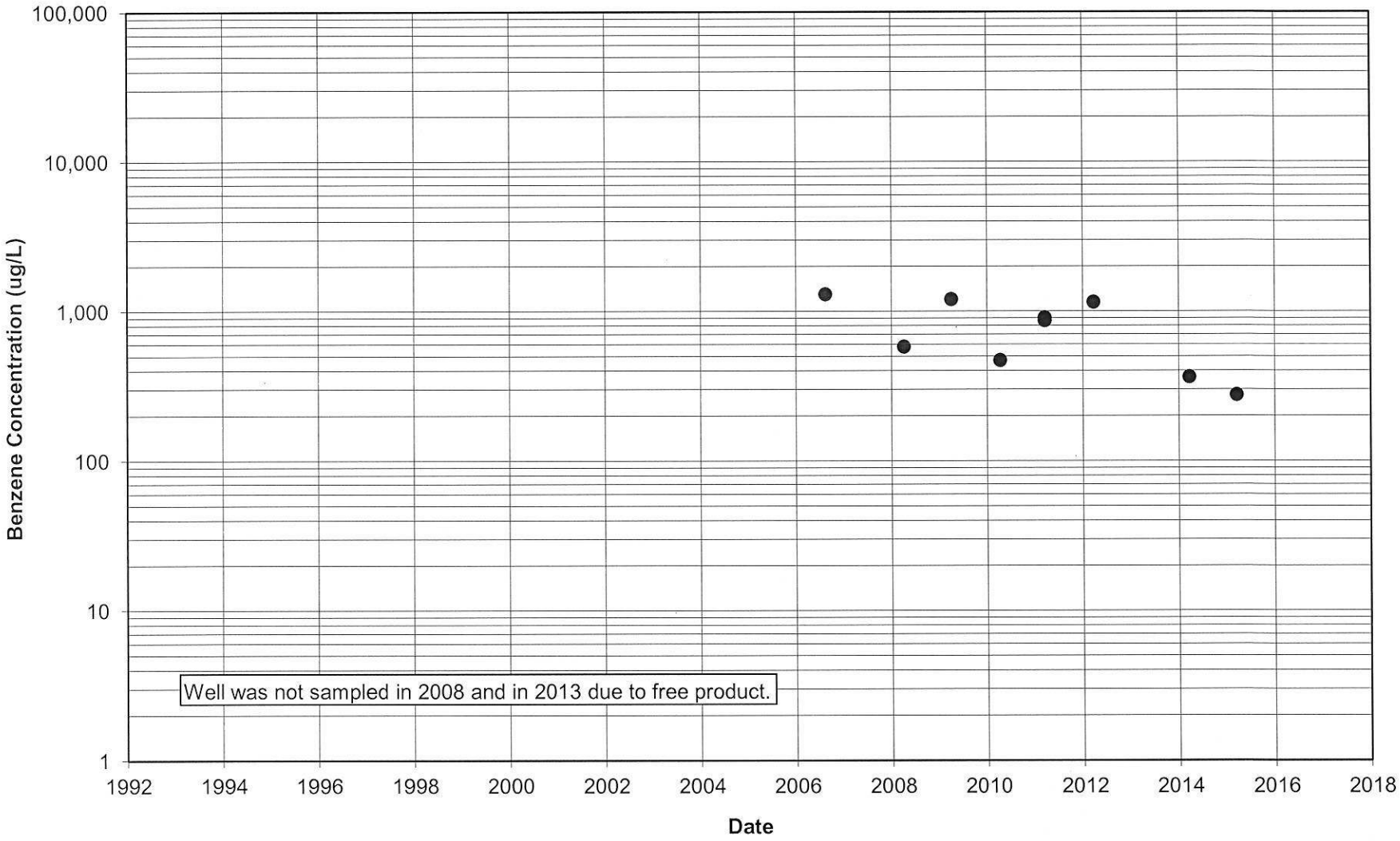
Time series plot of benzene in PCM-510B



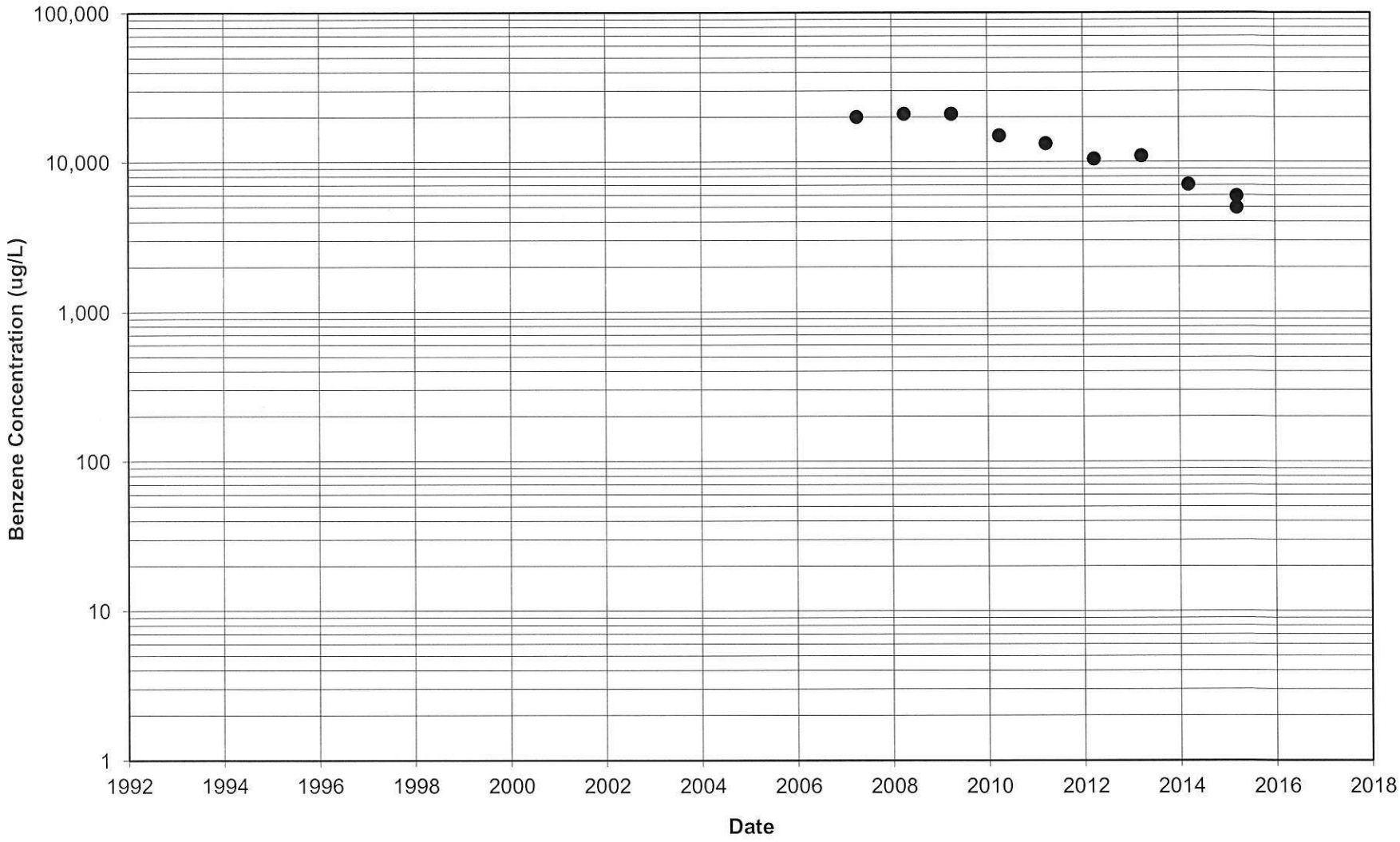
Time series plot of benzene in PCM-511A



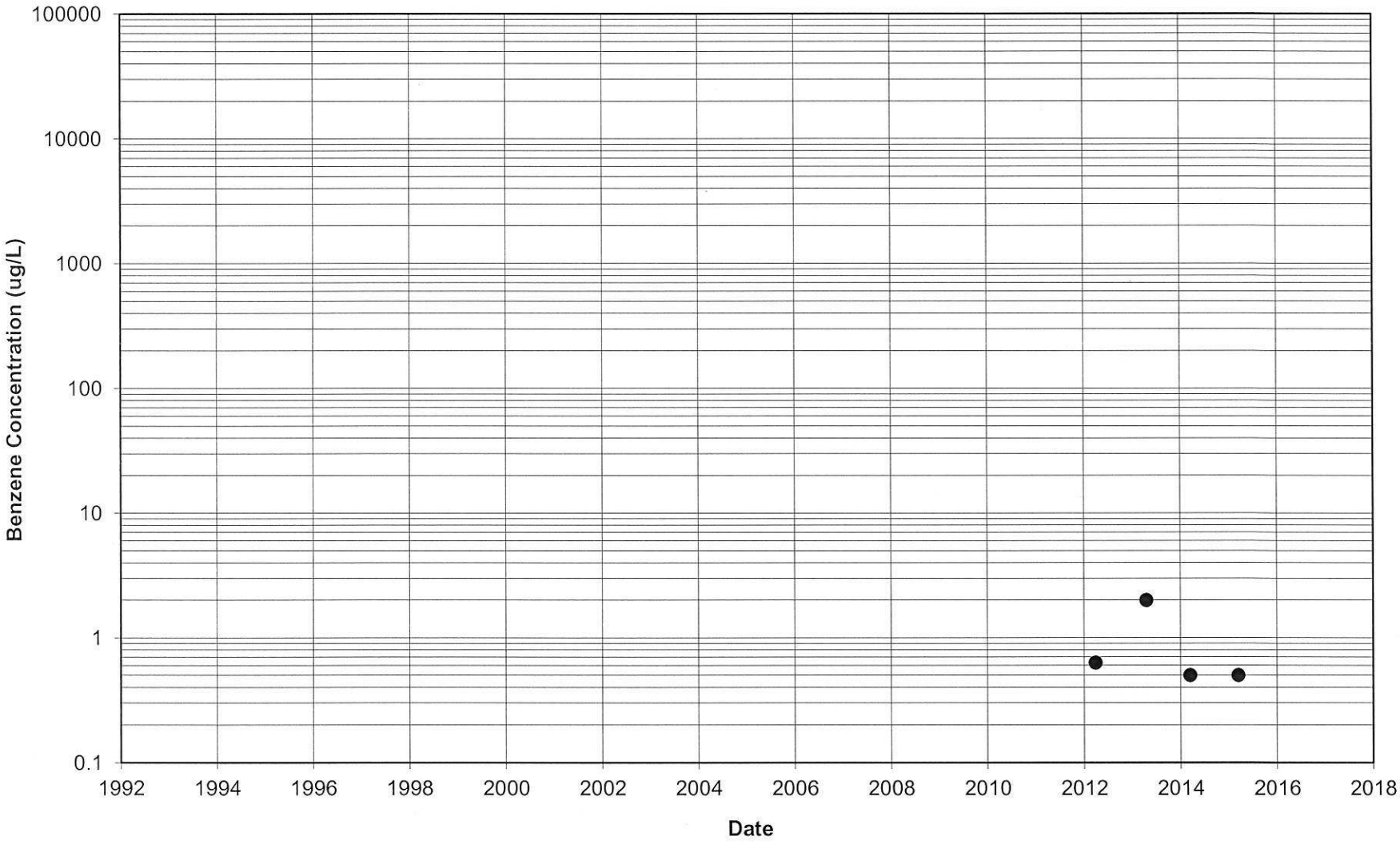
Time series plot of benzene in PCM-512A



Time series plot of benzene in PCM-517A



Time series plot of benzene in PCM-535A



APPENDIX G

2015 TFS-10 Quarterly System Performance Summary Reports,
By Cardno

Cardno
Shaping the Future

Cardno

9977 North 90th Street,
Suite 150
Scottsdale, AZ 85258
USA

Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

May 6, 2015
I052000014.Q115TFS10

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Subject: **TFS-10 System Performance Summary**
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from January through March 2015. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

First Quarter Field Activities

- Weekly system readings and equipment maintenance.
- Monthly well gauging, vapor monitoring, and non-aqueous phase liquid (NAPL) bailing.
- The remediation system has seven zones (1 through 7) which represent remediation wells on the same trunk lines; currently there are 23 wells connected to the seven remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remedial zones 1 through 4 were not operating; all of the remediation wells, excluding, well PCM-535A (zone 7) were operating in zones 5 through 7.
- Adjusted the bypass stingers to optimize the flow rate and vapor recovery in wells PCM-534A and PCM-507A (zone 7).
- Removed an estimated 6,088 pounds (approximately 1,015 gallons) of petroleum hydrocarbons through the AS/SVE system.
- Manually bailed approximately 1.75 gallons of NAPL from monitor well PCM-516 and 11.5 gallons of NAPL from monitor well WR-220A. During the reporting period a cumulative 13.25 gallons (79.5 pounds)

of NAPL was removed.

- An estimated 6,168 pounds (approximately 1,028 gallons) of petroleum hydrocarbons were removed through the AS/SVE remediation and NAPL removal activities during the reporting year of 2015. Since April 1, 2012 an estimated 95,585 pounds (approximately 15,931 gallons) of petroleum hydrocarbons have been removed from the Site through AS/SVE remediation and NAPL removal activities.

PROPOSED SECOND QUARTER 2015 SITE ACTIVITIES

- Continue weekly system readings, monthly well gauging, vapor monitoring, and NAPL bailing.
- Continue adjusting system to optimize vapor recovery.
- Continue adjusting bypass stingers to optimize flow rate and vapor recovery in wells PCM-534A and PCM-507A.

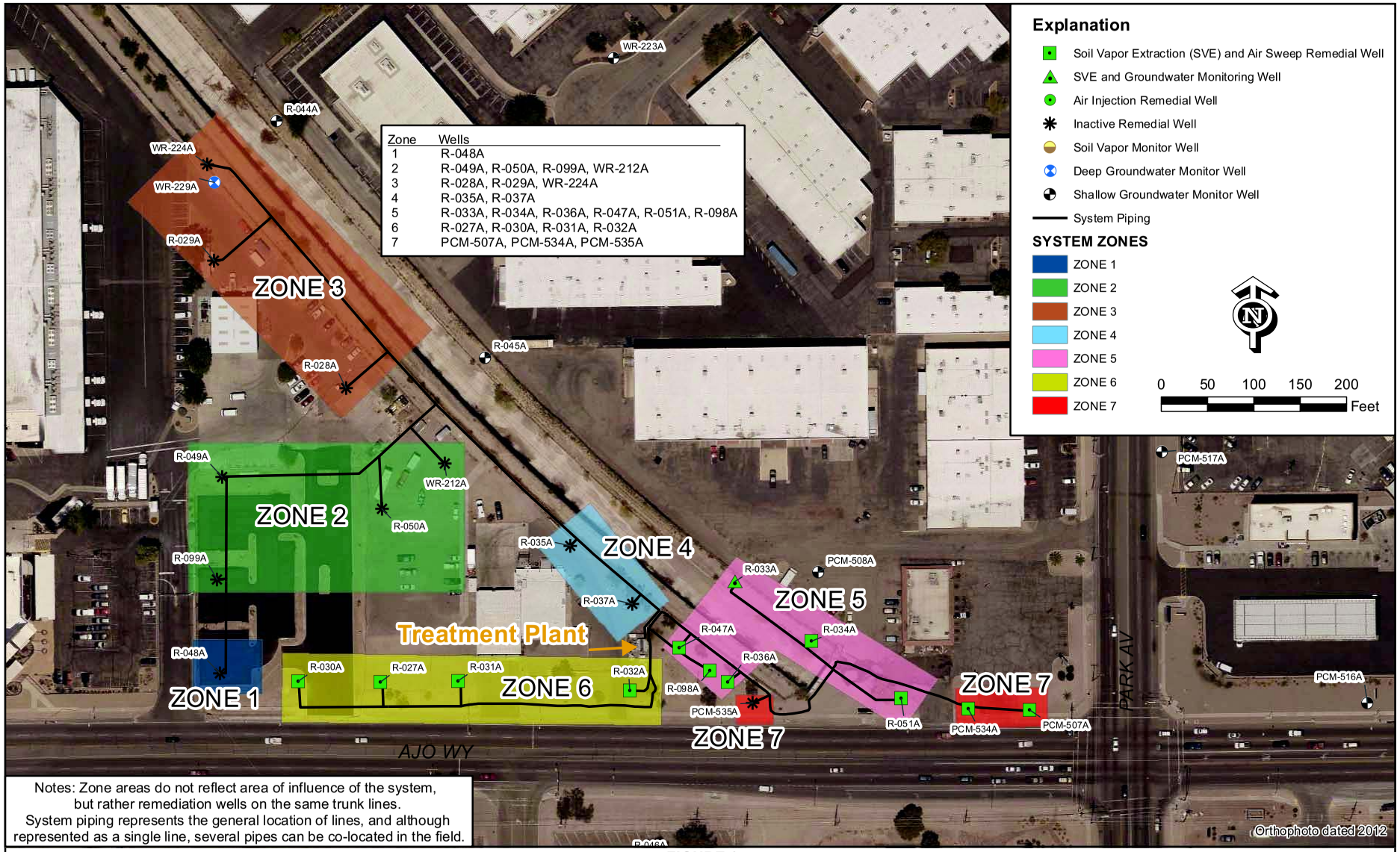
Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,

Justin T. Patton
Project Manager
for Cardno
Direct Line 602 909 3448
Email: justin.patton@cardno.com

Enclosures:

Figure 1	TFS-10 Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Influent Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Table 6	Manually Bailed NAPL Removal
Table 7	Annual NAPL Removal
Appendix A	Weekly Operation and Maintenance System Readings
Appendix B	Historical TPH mass removal table and graphs



Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines. System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

CITY OF TUCSON
ENVIRONMENTAL SERVICES

FIGURE 1
TFS-10 SITE LAYOUT AND WELL LOCATION MAP
THOMAS O. PRICE SERVICE CENTER
4004 South Park Avenue
Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

J:\GIS\PRICE\2012\TFSSYS.mxd

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Date	Op Hours	Vacuum (Inches H_2O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
08/27/12	13,472	67	318	480	167
09/05/12	13,685	50	577	471	159
09/18/12	13,779	55	425	468	155
09/24/12	13,924	52	612	466	156
10/01/12	14,090	55	747	469	154
10/08/12	14,256	57	251	476	153
10/18/12	14,493	61	655	479	151
10/22/12	14,560	64	596	484	145
11/06/12	14,920	70	338	520	146
11/27/12	15,394	63	219	395	139
12/11/12	15,729	63	439	404	132
01/02/13	16,205	66	822	246	125
01/21/13	16,657	64	381	399	132
02/07/13	17,062	64	285	366	135
04/30/13	17,880	48	737	425	146
07/15/13	19,128	60	367	306	179
08/12/13	19,706	63	287	319	172
11/07/13	20,590	48	508	309	148
12/12/13	21,407	51	422	324	145
01/14/14	22,357	45	743	324	150
02/19/14	22,983	68	351	296	115
03/27/14	23,325	54	722	227	115
04/14/14	23,754	61	372	253	122
05/15/14	24,476	60	143	247	125
06/05/14	24,930	60	441	227	139
07/07/14	25,647	59	182	221	139
08/06/14	26,208	61	329	225	143
09/10/14	26,985	55	283	235	134
10/02/14	27,427	54	443	237	129
11/12/14	28,401	55	413	264	118
12/15/14	29,068	60	211	240	120
01/14/15	29,758	50	259	263	101
02/17/15	30,423	56	321	287	110
03/24/15	31,018	30	355	209	104
Average		**57**	**428**	**340**	**138**

Notes:

VOC = Volatile organic compounds concentrations reported from PID.

ppmv = Parts per million by volume.

scfm = Standard cubic feet per minute.

Deg. F = Degree Fahrenheit.

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
08/27/12	12:50	9.9	9.9	2.0	8.2	630
09/05/12	9:36	14	17	3.2	12	810
09/18/12	10:55	8.5	12	3.2	16	880
09/24/12	1:00	19	15	2.0	8.5	900
10/01/12	11:10	23	20	2.5	15	1,100
10/08/12	10:30	4.4	3.7	<5.0	4.4	320
10/18/12	11:15	22	18	2.0	12	1,100
10/22/12	11:20	14	13	1.8	7.6	730
11/06/12	11:15	8.1	8.0	<5.0	3.9	460
11/27/12	12:50	5.6	2.9	0.99	7.4	440
12/11/12	12:50	10	8.8	1.3	6.9	590
01/02/13	10:50	18	20	2.8	12	760
01/21/13	11:50	8.5	7.7	1.7	7.8	460
02/07/13	11:35	4.7	3.7	1.2	6.9	370
04/30/13	11:28	17	14	1.7	8.0	900
07/15/13	9:15	3.89	9.42	<2.30	17.2	767
08/12/13	8:40	2.48	5.03	<1.15	13.4	579
11/07/13	10:20	7.43	18.2	2.96	16.7	891
12/12/13	10:25	4.20	12.5	2.11	14.2	619
01/14/14	8:48	8.48	25.0	4.27	25.9	1,210
02/19/14	11:23	4.62	15.5	3.13	16.8	765
03/27/14	11:07	7.73	23.2	3.63	30.1	1,350
04/14/14	9:50	3.48	8.20	1.83	21.1	705
05/15/14	8:50	2.2	4.50	<1.15	9.76	753
06/05/14	9:50	12.0	23.3	3.00	27.0	1,540
07/07/14	9:55	3.37	5.50	<1.15	8.69	658
08/06/14	9:30	5.61	10.6	1.95	16.9	958
09/10/14	11:25	8.36	26.6	4.86	21.0	965
10/02/14	10:23	7.88	21.9	3.13	27.2	1,260
11/12/14	10:43	5.82	19.2	4.40	28.5	1,010
12/15/14	8:20	1.13	3.32	0.40	4.34	398
01/14/15	10:25	2.69	10.5	2.14	9.3	358
02/16/15	10:10	19.6	37.6	4.78	23.8	1,410
03/24/15	10:00	2.6	11.0	2.53	11.8	463
Average		**8.83**	**13.7**	**2.57**	**14.1**	**797**

Notes:

ppmv = Part per million by volume.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
< = Below laboratory reporting limits.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
08/27/12	480	630	9.9	9.9	2.0	8.2	4.70	112.81	5.8E-02	1.4E+00	6.7E-02	1.6E+00	1.6E-02	3.8E-01	6.5E-02	1.6E+00
09/05/12	471	810	14	17	3.2	12	5.93	142.33	8.0E-02	1.9E+00	1.1E-01	2.7E+00	2.5E-02	6.0E-01	9.3E-02	2.2E+00
09/18/12	468	880	8.5	12	3.2	16	6.40	153.64	4.8E-02	1.2E+00	7.9E-02	1.9E+00	2.5E-02	5.9E-01	1.2E-01	3.0E+00
09/24/12	466	900	19	15	2.0	8.5	6.52	156.46	1.1E-01	2.6E+00	9.9E-02	2.4E+00	1.5E-02	3.7E-01	6.5E-02	1.6E+00
10/01/12	469	1,100	23	20	2.5	15	8.02	192.46	1.3E-01	3.1E+00	1.3E-01	3.2E+00	1.9E-02	4.6E-01	1.2E-01	2.8E+00
10/08/12	476	320	4.4	3.7	<5.0	4.4	2.37	56.82	2.5E-02	6.1E-01	2.5E-02	6.0E-01	3.9E-02	9.4E-01	3.5E-02	8.3E-01
10/18/12	479	1,100	22	18	2.0	12	8.19	196.57	1.3E-01	3.1E+00	1.2E-01	2.9E+00	1.6E-02	3.8E-01	9.5E-02	2.3E+00
10/22/12	484	730	14	13	1.8	7.6	5.49	131.81	8.2E-02	2.0E+00	8.9E-02	2.1E+00	1.4E-02	3.4E-01	6.1E-02	1.5E+00
11/06/12	520	460	8.1	8	<5.0	3.9	3.72	89.24	5.1E-02	1.2E+00	5.9E-02	1.4E+00	4.3E-02	1.0E+00	3.3E-02	8.0E-01
11/27/12	395	440	5.6	2.9	1.0	7.4	2.70	64.84	2.7E-02	6.4E-01	1.6E-02	3.9E-01	6.4E-03	1.5E-01	4.8E-02	1.2E+00
12/11/12	404	590	10	8.8	1.3	6.9	3.71	88.92	4.9E-02	1.2E+00	5.0E-02	1.2E+00	8.7E-03	2.1E-01	4.6E-02	1.1E+00
01/02/13	246	760	18	20	2.8	12	2.91	69.75	5.4E-02	1.3E+00	7.0E-02	1.7E+00	1.1E-02	2.7E-01	4.9E-02	1.2E+00
01/21/13	399	460	8.5	7.7	1.7	7.8	2.85	68.47	4.1E-02	9.9E-01	4.3E-02	1.0E+00	1.1E-02	2.7E-01	5.1E-02	1.2E+00
02/07/13	366	370	4.7	3.7	1.2	6.9	2.11	50.52	2.1E-02	5.0E-01	1.9E-02	4.6E-01	7.2E-03	1.7E-01	4.2E-02	1.0E+00
04/30/13	425	900	17	14	1.7	8.0	5.95	142.70	8.8E-02	2.1E+00	8.4E-02	2.0E+00	1.2E-02	2.9E-01	5.6E-02	1.3E+00
07/15/13	306	767	3.89	9.42	<2.30	17.2	3.65	87.56	1.4E-02	3.5E-01	4.1E-02	9.8E-01	1.2E-02	2.8E-01	8.7E-02	2.1E+00
08/12/13	319	579	2.48	5.03	<1.15	13.4	2.87	68.91	9.6E-03	2.3E-01	2.3E-02	5.4E-01	6.0E-03	1.5E-01	7.0E-02	1.7E+00
11/07/13	309	891	7.43	18.2	2.96	16.7	4.28	102.71	2.8E-02	6.7E-01	8.0E-02	1.9E+00	1.5E-02	3.6E-01	8.5E-02	2.0E+00
12/12/13	324	619	4.20	12.5	2.11	14.2	3.12	74.82	1.6E-02	4.0E-01	5.7E-02	1.4E+00	1.1E-02	2.7E-01	7.6E-02	1.8E+00
01/14/14	324	1,210	8.48	25.0	4.27	25.9	6.09	146.26	3.3E-02	8.0E-01	1.1E-01	2.7E+00	2.3E-02	5.5E-01	1.4E-01	3.3E+00
02/19/14	296	765	4.62	15.5	3.13	16.8	3.52	84.48	1.7E-02	4.0E-01	6.5E-02	1.6E+00	1.5E-02	3.7E-01	8.2E-02	2.0E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/27/14	227	1,350	7.73	23.2	3.63	30.1	4.76	114.33	2.1E-02	5.1E-01	7.4E-02	1.8E+00	1.4E-02	3.3E-01	1.1E-01	2.7E+00
04/14/14	253	705	3.48	8.20	1.83	21.1	2.77	66.54	1.1E-02	2.6E-01	2.9E-02	7.0E-01	7.6E-03	1.8E-01	8.8E-02	2.1E+00
05/15/14	247	753	2.23	4.50	1.15	9.76	2.89	69.39	6.7E-03	1.6E-01	1.6E-02	3.8E-01	4.7E-03	1.1E-01	4.0E-02	9.5E-01
06/05/14	227	1,540	12.0	23.3	3.00	27	5.43	130.42	3.3E-02	7.9E-01	7.5E-02	1.8E+00	1.1E-02	2.7E-01	1.0E-01	2.4E+00
07/07/14	221	658	3.37	5.50	1.15	8.69	2.26	54.25	9.0E-03	2.2E-01	1.7E-02	4.1E-01	4.2E-03	1.0E-01	3.2E-02	7.6E-01
08/06/14	225	958	5.61	10.6	1.95	16.9	3.35	80.41	1.5E-02	3.7E-01	3.4E-02	8.1E-01	7.2E-03	1.7E-01	6.3E-02	1.5E+00
09/10/14	235	965	8.36	26.6	4.86	21	3.53	84.60	2.4E-02	5.7E-01	8.8E-02	2.1E+00	1.9E-02	4.5E-01	8.1E-02	2.0E+00
10/02/14	237	1,260	7.88	21.9	3.13	27.2	4.64	111.40	2.3E-02	5.4E-01	7.3E-02	1.8E+00	1.2E-02	2.9E-01	1.1E-01	2.5E+00
11/12/14	264	1,010	5.82	19.2	4.40	28.5	4.14	99.47	1.9E-02	4.5E-01	7.2E-02	1.7E+00	1.9E-02	4.6E-01	1.2E-01	3.0E+00
12/15/14	240	398	1.13	3.32	0.40	4.34	1.48	35.63	3.3E-03	7.9E-02	1.1E-02	2.7E-01	1.6E-03	3.8E-02	1.7E-02	4.1E-01
01/14/15	263	358	2.69	10.5	2.14	9.27	1.46	35.13	8.6E-03	2.1E-01	3.9E-02	9.4E-01	9.3E-03	2.2E-01	4.0E-02	9.6E-01
02/16/15	287	1,410	19.6	37.6	4.78	23.8	6.29	150.97	6.8E-02	1.6E+00	1.5E-01	3.7E+00	2.3E-02	5.4E-01	1.1E-01	2.7E+00
03/24/15	209	463	2.60	11.0	2.53	11.8	1.50	36.10	6.6E-03	1.6E-01	3.3E-02	7.8E-01	8.7E-03	2.1E-01	4.1E-02	9.8E-01
AVERAGE	**340**	**797**	**8.83**	**13.7**	**2.57**	**14.1**	**4.11**	**98.55**	**4.0E-02**	**9.6E-01**	**6.4E-02**	**1.5E+00**	**1.4E-02**	**3.5E-01**	**7.3E-02**	**1.7E+00**

Notes:

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.

Lbs = Pounds.

scfm = Standard cubic feet per minute.

ppmv = Parts per million by volume.

< = Below minimum laboaratory reporting limits.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
08/27/12	3,321	**15,611**	**191.34**	**223.23**	**52.53**	**215.4**
09/05/12	213	**1,263**	**17.03**	**24.12**	**5.29**	**19.8**
09/18/12	94	**602**	**4.53**	**7.47**	**2.32**	**11.6**
09/24/12	145	**945**	**15.57**	**14.34**	**2.23**	**9.5**
10/01/12	166	**1,331**	**21.71**	**22.03**	**3.21**	**19.2**
10/08/12	166	**393**	**4.22**	**4.14**	**6.51**	**5.7**
10/18/12	237	**1,941**	**30.28**	**28.90**	**3.74**	**22.4**
10/22/12	67	**368**	**5.50**	**5.96**	**0.96**	**4.1**
11/06/12	360	**1,339**	**18.38**	**21.18**	**15.42**	**12.0**
11/27/12	474	**1,281**	**12.71**	**7.68**	**3.05**	**22.8**
12/11/12	335	**1,241**	**16.41**	**16.85**	**2.90**	**15.4**
01/02/13	476	**1,383**	**25.56**	**33.13**	**5.40**	**23.2**
01/21/13	452	**1,290**	**18.59**	**19.64**	**5.05**	**23.2**
02/07/13	405	**853**	**8.45**	**7.76**	**2.93**	**16.9**
04/30/13	818	**4,864**	**71.66**	**68.85**	**9.74**	**45.8**
07/15/13	1,248	**4,553**	**18.01**	**50.89**	**14.47**	**108.2**
08/12/13	578	**1,659**	**5.54**	**13.12**	**3.49**	**40.7**
11/07/13	884	**3,783**	**24.61**	**70.32**	**13.32**	**75.2**
12/12/13	817	**2,547**	**13.48**	**46.80**	**9.20**	**61.9**
01/14/14	950	**5,789**	**31.65**	**108.85**	**21.66**	**131.4**
02/19/14	626	**2,203**	**10.38**	**40.63**	**9.56**	**51.3**
03/27/14	342	**1,629**	**7.28**	**25.48**	**4.64**	**38.5**
04/14/14	429	**1,189**	**4.58**	**12.59**	**3.27**	**37.7**
05/15/14	722	**2,087**	**4.82**	**11.35**	**3.38**	**28.7**
06/05/14	454	**2,467**	**14.99**	**33.97**	**5.09**	**45.8**
07/07/14	717	**1,621**	**6.47**	**12.33**	**3.00**	**22.7**
08/06/14	561	**1,880**	**8.59**	**18.93**	**4.06**	**35.1**
09/10/14	777	**2,739**	**18.51**	**68.70**	**14.62**	**63.2**
10/02/14	442	**2,052**	**10.01**	**32.45**	**5.40**	**46.9**
11/12/14	974	**4,037**	**18.14**	**69.84**	**18.64**	**120.7**
12/15/14	667	**990**	**2.19**	**7.52**	**1.06**	**11.4**
01/14/15	690	**1,010**	**5.92**	**26.95**	**6.40**	**27.7**
02/17/15	665	**4,183**	**45.36**	**101.51**	**15.03**	**74.8**
03/24/15	595	**895**	**3.92**	**19.35**	**5.18**	**24.2**
TOTAL	**20,867**	**82,018**	**716.4**	**1,277**	**282.8**	**1,513**

Notes:

TPH	=	Total petroleum hydrocarbons analyzed using EPA Method 8015.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
lbs	=	Pounds.
OP Hours	=	Duration of SVE operation during period.

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs)[a]	Cumulative TPH (Lbs)	TPH (Gallons)[b]	Cumulative TPH (Gallons)[b]	Manually Bailed (Gallons)	Well Pumps (Gallons)[c]	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs)[d]	TPH (Gallons)[d]
04/03/12 - **08/27/12**	3321	15,611	15,611	2,602	2,602	83.50	520.00	603.50	1,277	23,270	3,878
08/27/12 - **09/05/12**	213	1,263	16,874	211	2,812	3.50	30.00	33.50	1,310	24,734	4,122
09/05/12 - **09/18/12**	94	602	17,476	100	2,913	6.25	33.50	39.75	1,350	25,575	4,262
09/18/12 - **09/24/12**	145	945	18,421	158	3,070	4.00	20.00	24.00	1,374	26,664	4,444
09/24/12 - **10/01/12**	166	1,331	19,752	222	3,292	3.50	23.25	26.75	1,401	28,156	4,693
10/01/12 - **10/08/12**	166	393	20,145	66	3,358	3.00	23.25	26.25	1,427	28,706	4,784
10/08/12 - **10/18/12**	237	1,941	22,086	324	3,681	3.00	33.00	36.00	1,463	30,863	5,144
10/18/12 - **10/22/12**	67	368	22,454	61	3,742	3.00	13.28	16.28	1,479	31,329	5,221
10/22/12 - **11/06/12**	360	1,339	23,793	223	3,965	9.25	50.00	59.25	1,538	33,023	5,504
11/06/12 - **11/27/12**	474	1,281	25,073	213	4,179	9.25	62.37	71.62	1,610	34,733	5,789
11/27/12 - **12/11/12**	335	1,241	26,315	207	4,386	9.50	36.52	46.02	1,656	36,251	6,042
12/11/12 - **01/02/13**	476	1,383	27,698	231	4,616	9.50	85.85	95.35	1,751	38,206	6,368
01/02/13 - **01/21/13**	452	1,290	28,987	215	4,831	9.50	72.56	82.06	1,833	39,988	6,665
01/21/13 - **02/07/13**	405	853	29,840	142	4,973	6.50	64.92	71.42	1,905	41,269	6,878
02/07/13 - **04/30/13**	818	4,864	34,704	811	5,784	13.50	191.00	204.50	2,109	47,360	7,893
04/30/13 - **07/15/13**	1248	4,553	39,257	759	6,543	8.25	---	8.25	2,118	51,962	8,660
07/15/13 - **08/12/13**	578	1,659	40,916	277	6,819	5.25	---	5.25	2,123	53,653	8,942
08/12/13 - **11/07/13**	884	3,783	44,699	631	7,450	6.75	---	6.75	2,130	57,477	9,579
11/07/13 - **12/12/13**	817	2,547	47,246	424	7,874	9.75	---	9.75	2,139	60,082	10,014
12/12/13 - **01/14/14**	950	5,789	53,036	965	8,839	14.25	---	14.25	2,154	65,957	10,993
01/14/14 - **02/19/14**	626	2,203	55,239	367	9,206	18.00	---	18.00	2,172	68,269	11,378
02/19/14 - **03/27/14**	342	1,629	56,868	272	9,478	0.00	---	0.00	2,172	69,898	11,650
03/27/14 - **04/14/14**	429	1,189	58,058	198	9,676	9.50	---	9.50	2,181	71,144	11,857
04/14/14 - **05/15/14**	722	2,087	60,145	348	10,024	4.75	---	4.75	2,186	73,260	12,210
05/15/14 - **06/05/14**	454	2,467	62,612	411	10,435	14.25	---	14.25	2,200	75,813	12,635

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs)[a]	Cumulative TPH (Lbs)	TPH (Gallons)[b]	Cumulative TPH (Gallons)[b]	Manually Bailed (Gallons)	Well Pumps (Gallons)[c]	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs)[d]	TPH (Gallons)[d]
06/05/14 - **07/07/14**	717	1,621	64,233	270	10,705	8.75	---	8.75	2,209	77,486	12,914
07/07/14 - **08/06/14**	561	1,880	66,112	313	11,019	8.75	---	8.75	2,218	79,418	13,236
08/06/14 - **09/10/14**	777	2,739	68,851	456	11,475	5.00	---	5.00	2,223	82,187	13,698
09/10/14 - **10/02/14**	442	2,052	70,903	342	11,817	4.50	---	4.50	2,227	84,266	14,044
10/02/14 - **11/12/14**	974	4,037	74,940	673	12,490	5.50	---	5.50	2,233	88,336	14,723
11/12/14 - **12/15/14**	667	990	75,930	165	12,655	15.25	---	15.25	2,248	89,417	14,903
12/15/14 - **01/14/15**	690	1,010	76,940	168	12,823	4.50	---	4.50	2,252	90,454	15,076
01/14/15 - **02/17/15**	665	4,183	81,123	697	13,521	3.75	---	3.75	2,256	94,660	15,777
02/17/15 - **03/24/15**	595	895	82,018	149	13,670	5.00	---	5.00	2,261	95,585	15,931

Notes:

BOLD = Sample collection date.
TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
NAPL = Non-aqueous phase liquid.
Lbs = Pounds.
--- = All skimmer pump extraction wells were converted to air-sparge technology.
[a] = TPH lbs are calculated from mass removal from SVE remediaiton system.
[b] = TPH gallons are converted to gallons using 6 lbs = 1 gallon of TPH.
[c] = Well pump totals are calculated by subtracting the total volume of NAPL (combination of manually bailed and pneumatically pumped from well) in the storage vessel minus the manually bailed NAPL and averaged over the NAPL collection period.
[d] = Cumulative TPH lbs and gallons are calculated by adding NAPL removed from wells to mass removal from SVE remediaiton system.

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
04/03/12	R-028A,PCM-516	4.00	4.00
04/17/12	PCM-516	2.25	6.25
05/01/12	PCM-516	4.25	10.50
05/10/12	PCM-516	2.50	13.00
05/17/12	R-32,PCM-516	3.50	16.50
05/25/12	R-017A, 018A, 028A, 035A, 037A, PCM-516, WR-215A	11.3	27.75
05/31/12	PCM-516	3.00	30.75
06/06/12	PCM-516,17,18	7.75	38.50
06/12/12	PCM-516,17,18	3.25	41.75
06/18/12	PCM-516	3.00	44.75
06/28/12	PCM-516,35,37	5.75	50.50
07/05/12	PCM-516, R-099	5.25	55.75
07/10/12	PCM-516	3.00	58.75
07/18/12	PCM-516, R-099	7.50	66.25
07/25/12	PCM-516	3.00	69.25
07/30/12	PCM-516	3.25	72.50
08/10/12	PCM-516	8.00	80.50
08/27/12	PCM-516	3.00	83.50
09/05/12	PCM-516	3.50	87.00
09/14/12	PCM-516	3.00	90.00
09/18/12	PCM-516	3.25	93.25
09/24/12	PCM-516	4.00	97.25
10/01/12	PCM-516	3.50	100.75
10/08/12	PCM-516	3.00	103.75
10/18/12	PCM-516	3.00	106.75
10/22/12	PCM-516	3.00	109.75
11/01/12	PCM-516	3.00	112.75
11/06/12	PCM-516	3.25	116.00
11/13/12	PCM-516	3.25	119.25
11/19/12	PCM-516	3.00	122.25
11/27/12	PCM-516	3.00	125.25
12/04/12	PCM-516	3.00	128.25
12/11/12	PCM-516	3.50	131.75
12/18/12	PCM-516	3.25	135.00
12/27/12	PCM-516	3.00	138.00
01/02/13	PCM-516	3.25	141.25
01/07/13	PCM-516	3.25	144.50
01/14/13	PCM-516	3.25	147.75
01/21/13	PCM-516	3.00	150.75
01/28/13	PCM-516	3.50	154.25
02/07/13	PCM-516	3.00	157.25
02/11/13	PCM-516	3.00	160.25
02/19/13	PCM-516	3.50	163.75
02/25/13	PCM-516	3.50	167.25
03/04/13	PCM-516	3.50	170.75
05/15/13	R-028A, 035A, 037A, 050A, PCM-516	4.00	174.75
06/13/13	PCM-516	2.25	177.00
06/24/13	PCM-516	2.00	179.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
07/31/13	PCM-516	1.75	180.75
08/05/13	PCM-516	2.00	182.75
08/12/13	PCM-516	1.50	184.25
08/19/13	PCM-516	1.00	185.25
09/04/13	PCM-516	1.25	186.50
10/10/13	PCM-516	1.75	188.25
10/21/13	PCM-516	0.75	189.00
10/30/13	PCM-516	1.00	190.00
11/07/13	PCM-516	1.00	191.00
11/11/13	PCM-516	1.00	192.00
11/25/13	PCM-516, WR-220A	5.00	197.00
12/02/13	PCM-516, WR-220A	3.75	200.75
12/18/13	PCM-516, WR-220A	3.25	204.00
01/02/14	PCM-516, WR-220A	4.00	208.00
01/07/14	PCM-516, WR-220A	3.50	211.50
01/14/14	PCM-516, WR-220A	3.50	215.00
01/22/14	PCM-516, WR-220A	3.25	218.25
02/03/14	PCM-516, WR-220A	4.00	222.25
02/10/14	PCM-516, WR-220A	4.00	226.25
02/19/14	PCM-516, WR-220A	3.25	229.50
04/03/14	PCM-516, WR-220A	5.00	234.50
04/07/14	PCM-516, WR-220A	4.50	239.00
04/25/14	PCM-516, WR-220A	4.75	243.75
05/19/14	PCM-516, WR-220A	5.00	248.75
05/27/14	PCM-516, WR-220A	4.50	253.25
06/05/14	PCM-516, WR-220A	4.75	258.00
06/16/14	PCM-516, WR-220A	4.00	262.00
07/07/14	PCM-516, WR-220A	4.75	266.75
07/14/14	PCM-516, WR-220A	4.25	271.00
07/23/14	PCM-516, WR-220A	4.50	275.50
08/06/14	PCM-516, WR-220A	5.00	280.50
10/02/14	PCM-516, WR-220A	4.50	285.00
10/08/14	PCM-516, WR-220A	5.50	290.50
11/25/14	R-031A, R-098, PCM-507, PCM-516, WR-220A	11.75	302.25
12/15/14	PCM-516, WR-220A	3.50	305.75
01/15/15	PCM-516, WR-220A	4.50	310.25
02/17/15	PCM-516, WR-220A	3.75	314.00
03/16/15	PCM-516, WR-220A	5.00	319.00

Notes:

NAPL = Non-aqueous phase liquid.

TABLE 7
ANNUAL NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Time Period	NAPL Removed Bailed/Pumped (Gallons)	Cummulative NAPL Removal (Gallons)
1998	86	86
1999	131	217
2000	45	262
2001	45	307
2002	28	335
2003	956	1,291
2004	1,210	2,501
2005	1,365	3,866
2006	923	4,789
2007	2,315	7,104
2008	2,577	9,681
2009	1,200	10,881
2010	1,703	12,584
2011	1,750	14,334
2012	1,690	16,024
2013	473	16,497
2014	133	16,630
2015	13	16,510

Notes:

NAPL = Non-aqueous phase liquid.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
04/03/12	10151	64	2700	134	211	252	0.7	619	82438	103776	4.00	N	N	run/o&m/run
04/09/12	10294	59	2800	145	215	306	1.3	601	82724	103806	0.00	N	N	run/o&m/run
05/01/12	10818	58	2400	146	184	164	4	624	83794	103918	4.25	N	N	run/o&m/run
05/08/12	10984	58	2400	137	186	246	4	614	84141	103954	0.00	N	N	run/o&m/run "see note 1"
	10985	57	2400	144	184	368	1	691	84143	103955		N	N	
	10988	85	4200[a]	166	311	395	1	696	84148	103955		N	N	
05/10/12	11033	67	4800	153	363	251	2	623	84241	103968	2.50	N	N	run/o&m/run
05/17/12	11109	65	4900	163	365	238	1	627	84388	103988	3.50	N	N	run/o&m/run "see note 2"
	11112	63	5000	169	369	263	4	630	84393	103989		N	N	
05/25/12	11304	63	NT[b]	160	450[b]	246	2	635	84765	104034	11.25	N	N	run/o&m/run
05/31/12	11443	55	NT	146	459	255	3	620	85034	104067	3.00	N	N	run/o&m/run "see note 2"
	11445	54	NT	155	458	435	0	704	85039	104067		N	N	
06/28/12	12066	60	NT	168	472	347	21	688	86299	104213	5.75	N	N	run/o&m/run
07/05/12	12237	77	NT	171	481	635	7	778	86647	104254	5.25	N	N	run/o&m/run
07/25/12	12701	62	NT	159	462	558	11	705	87525	104367	3.00	N	N	run/o&m/run
07/30/12	12820	63	NT	157	465	287	2	658	87754	104397	3.25	N	N	run/o&m/run
08/10/12	13070	59	NT	169	479	221	6	644	0004[c]	104459	8.00	N	N	run/o&m/run
08/14/12	13163	60	NT	171	485	233	13	653	00168	104484	0.00	N	N	run/o&m/run
08/20/12	13305	67	NT	169	483	256	16	654	00431	104521	8.00	N	N	run/o&m/run
08/27/12	13472	67	NT	167	480	318	11	685	00733	104565	3.00	N	Y	run/o&m/run
09/05/12	13683	68	NT	154	463	302	14	655	1119	104622	3.50	N	N	run/o&m/run "see note 2"
	13685	50	NT	159	471	577	9	619	1119	104622		N	Y	run/o&m/run "see note 2"
09/18/12	13779	55	NT	155	468	425	18	633	1297	104651	3.25	N	Y	run/o&m/run
09/24/12	13924	52	NT	156	466	612	10	622	1576	104685	4.00	N	Y	run/o&m/run
10/01/12	14090	55	NT	154	469	747	6	649	1910	104722	3.50	N	Y	run/o&m/run
10/08/12	14256	57	NT	153	476	251	0	647	2228	104764	3.00	N	Y	run/o&m/run
10/18/12	14493	61	NT	151	479	655	16	636	2688	104818	3.00	N	Y	run/o&m/run
10/22/12	14560	64	NT	145	484	596	7	638	2816	104837	3.00	N	Y	run/o&m/run
11/01/12	14800	74	NT	149	520	472	16	636	3277	104901	3.00	N	N	run/o&m/run
11/06/12	14920	70	NT	146	520	338	9	643	3504	104933	3.25	N	Y	run/o&m/run
11/13/12	15067	71	5150	140	398	481	9	644	3790	104972	3.25	N	N	run/o&m/run
11/19/12	15202	62	4950	141	382	231	2	628	4060	105009	3.00	N	N	run/o&m/run
11/27/12	15394	63	5100	139	395	219	6	614	4440	105061	3.00	N	Y	run/o&m/run
12/04/12	15559	65	5000	139	387	286	4	628	4771	105106	3.00	N	N	run/o&m/run
12/11/12	15729	63	5160	132	404	439	26	635	5118	105152	3.50	N	Y	run/o&m/run
12/18/12	15889	64	2460	130	193	276	0	618	5440	105192	3.25	N	N	run/o&m/run
12/27/12	16107	64	2600	127	205	959	12	636	5899	105246	3.00	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
01/02/13	16205	66	3100	125	246	822	12	627	6105	105274	3.25	N	Y	down/o&m,ted/run
01/07/13	16325	67	5255	128	414	359	6	642	6355	106307	3.25	N	N	run/o&m/run
01/14/13	16493	66	5150	120	411	346	21	625	6079	105354	3.25	N	N	run/o&m/run
01/16/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
01/21/13	16657	64	5100	132	399	381	6	637	7070	105398	3.00	N	Y	run/o&m,ted/run
01/28/13	16822	63	4900	125	388	305	9	626	7410	105443	3.50	N	N	run/o&m/run
02/07/13	17062	64	4700	135	366	285	7	690	7920	105509	3.00	N	Y	run/o&m,ted/run
02/11/13	17157	62	4736	125	375	165	4	687	8116	105535	3.00	N	N	run/o&m/run
02/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
02/19/13	17349	54	5100	127	403	243	27	620	8509	105588	3.50	N	N	run/o&m/run
02/25/13	17494	64	4950	124	393	266	5	640	8815	105627	3.50	N	N	run/o&m/run
03/04/13	17659	64	5150	127	407	256	28	1014	9167	105672	3.50	N	N	run/o&m/run
03/13/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	run/down "see note 3"
03/20/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
03/26/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down "see note 4"
04/09/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/19/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
04/23/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/25/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/30/13	17880	48	5560	146	425	737	32	690	9643	105750	0.00	N	Y	down/o&m/ted/down
05/15/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.00	NT	N	Down/monthly well
05/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/run "see note 5"
05/30/13	18050	33	8730	145	668	774	65	776	9978	105803	0.00	N	N	run/o&m/run "see note 6"
06/06/13	18218	54	9500	164	706	235	0	625	10289	105850	0.00	N	N	run/o&m/run
06/13/13	18387	64	9240	176	679	317	58	653	10589	105899	2.25	N	Y	run/o&m,ted/run
06/21/13	18574	72	9300	168	686	280	40	646	10907	105956	0.00	N	N	run/o&m/run
06/24/13	18647	73	9265	166	686	320	61	655	11033	105978	2.00	N	N	run/o&m/run
07/01/13	18792	64	5520	165	480	266	24	631	11284	106023	2.25	N	N	run/o&m/run
07/08/13	18959	58	4039	175	295	296	31	647	11550	106068	2.00	N	N	run/o&m/run
07/15/13	19128	60	4220	179	306	367	32	658	11821	106114	1.25	N	Y	run/o&m,ted/run
07/25/13	19363	61	4165	173	305	312	28	640	12213	106191	2.00	N	N	run/o&m/run
07/31/13	19418	60	4202	168	310	247	19	644	12302	106209	1.75	N	N	run/o&m/run
08/05/13	19538	64	4244	162	316	265	29	660	12498	106240	2.00	N	N	run/o&m/run
08/12/13	19706	63	4355	172	319	287	34	652	12772	106288	1.50	N	Y	run/o&m,ted/run
08/19/13	19874	64	4390	172	322	274	51	636	13045	106336	1.00	N	N	run/o&m/down "see note 7"

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
09/04/13	19877	60	4335	172	318	286	31	626	13052	106345	1.25	N	Y	down/o&m,ted/down
10/08/13	19879	60	4401	168	325	447	44	637	13054	106363	0.00	N	N	Down/O&M/run
10/10/13	19922	56	4567	152	346	1051	103	770	13125	106376	1.75	N	Y	run/o&m,ted/run
10/15/13	20046	54	4166	160	311	245	14	630	13334	106412	0.00	N	N	run/wells,o&m/run
10/21/13	20181	50	4000	153	302	459	19	667	13554	106449	0.75	N	N	run/o&m/run
10/30/13	20398	45	4065	153	307	377	24	636	13897	106505	1.00	N	N	run/o&m/run
11/07/13	20590	48	4063	148	309	508	4	682	14205	106556	1.00	N	Y	run/o&m,ted/run
11/11/13	20685	49	4100	149	312	296	11	631	14357	106578	1.00	N	N	run/o&m,well/down
11/19/13	20854	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	N	N	run/o&m/run
11/25/13	20997	49	4040	138	313	429	7	669	14870	106662	5.00	N	N	run/o&m/run
12/02/13	21165	48	4065	144	311	502	6	691	15149	106707	3.75	N	N	run/o&m/run
12/12/13	21407	51	4230	145	324	422	0	630	15550	106773	3.50	N	Y	run/o&m,ted/run
12/18/13	21523	49	4205	148	328	389	0	602	15746	106806	3.25	N	N	run/o&m/run
12/24/13	21668	49	4255	143	327	308	0	630	15971	106841	0.00	N	N	run/o&m/run
01/02/14	21881	48	4100	147	313	281	0	628	16294	106898	4.00	N	N	run/o&m/run
01/07/14	22004	49	4165	149	317	322	12	629	16485	NT	3.5	N	N	run/o&m/run
01/14/14	22169	45	4275	150	324	743	2	640	16734	106907	3.5	N	Y	run/o&m,ted/run
01/22/14	22357	48	4220	150	320	503	1	670	17016	107020	3.25	N	N	run/o&m/run
01/28/14	22497	46	4945	160	369	467	0	655	17223	107057	0	N	N	down/o&m/run
02/03/14	22601	40	4366	138	338	697	9	661	17361	107083	4	N	N	run/o&m/run
02/10/14	22768	65	3505	117	281	754	7	667	17663	107119	4	N	N	run/o&m/run
02/19/14	22983	68	3685	115	296	351	13	643	18072	107162	3.25	N	Y	run/o&m,ted/run
02/24/14	23012	NT	NT	NT	NT	NT	NT	NT	18126	107169	0	N	N	don/o&m/down
03/04/14	23106	58	3700	112	300	454	9	505	18305	107187	0	N	N	run/o&m/run
03/12/14	23250	NT	NT	NT	NT	NT	NT	NT	NT	NT	0	N	N	down for annual
03/27/14	23325	54	2820	115	227	722	1	552	18678	107223	0	N	Y	run/o&m,ted/run
04/03/14	23493	62	3330	114	269	410	7	642	18971	107253	5	N	N	run/o&m/run
04/07/14	23587	60	3285	118	263	527	4	662	19144	107270	4.5	N	N	run/o&m/run
04/14/14	23754	61	3175	122	253	372	7	645	19438	107303	0	N	Y	run/o&m,ted,wells/run
04/25/14	23992	61	3240	117	260	224	7	634	19866	107352	4.75	N	N	run/o&m/run
05/01/14	24136	64	3085	116	248	382	6	634	20133	107382	0	N	N	run/o&m/run
05/07/14	24282	61	3188	122	254	317	13	651	20391	107413	0	N	N	run/o&m/run
05/15/14	24476	60	3120	125	247	143	0	645	20747	107451	0	N	Y	run/o&m,ted,wells/run
09/19/14	24568	61	3165	123	252	282	0	639	20910	107468	5	N	N	run/o&m/run
05/27/14	247162	62	3210	127	253	376	14	651	21177	107495	4.5	N	N	run/o&m/run
06/05/14	24930	60	2930	139	227	441	17	650	21555	107528	4.75	N	Y	run/o&m,ted,wells/run
06/12/14	251002	60	2790	141	215	291	0	670	21856	107557	0	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
06/16/14	25195	58	2873	142	221	185	0	648	22026	107572	4	N	N	run/o&m/run
06/26/14	25431	60	2780	141	214	217	0	676	22449	107612	0	N	N	run/o&m/run
07/03/14	25591	60	2765	140	214	407	14	682	22743	107637	0	N	N	run/o&m/run
07/07/14	25647	59	2850	139	221	182	0	644	22850	107646	4.74	N	Y	down/o&m,ted/run
07/14/14	25819	60	2910	142	224	268	21	663	23154	107678	4.25	N	N	run/o&m/down
07/23/14	25871	60	2935	145	225	310	17	655	23242	107704	4.5	N	N	run/o&m/run
07/29/14	26014	60	3055	135	238	156	0	640	23492	107743	0	N	N	run/o&m/run
08/06/14	26208	61	2930	143	225	329	0	660	23841	107797	5	N	Y	run/o&m,ted/run
08/14/14	26398	55	2880	132	225	1000	0	657	24187	107850	0	N	N	run/o&m/run
08/19/14	26520	52	2860	137	222	1000	0	668	24408	107885	0	N	N	run/o&m/run
08/25/14	26663	59	2930	134	229	371	0	684	24667	107925	0	N	N	run/o&m/run
09/02/14	26814	52	2910	135	227	168	0.5	680	24935	107977	0	N	N	run/o&m/run
09/10/14	26985	55	3010	134	235	283	4	673	25233	108032	0	N	Y	run/o&m,ted/run
09/16/14	27068	54	3045	135	237	223	0	668	25379	108061	0	N	N	run/o&m/run
09/22/14	27211	54	3002	128	237	272	0	671	25628	108099	0	N	N	run/o&m/down
10/02/14	27427	54	3015	129	237	443	5	701	26007	108162	4.5	N	Y	run/o&m,ted/run
10/08/14	27570	57	2950	119	236	305	0.4	692	26262	108204	5.5	N	N	run/o&m/run
10/17/14	27786	56	2995	126	237	412	2.9	697	26651	108268	0	N	N	run/o&m/run
10/20/14	27858	55	2931	129	231	321	2.1	691	26780	108289	0	N	N	run/o&m/run
10/31/14	28113	55	3000	127	237	299	0.9	705	27245	108361	0	N	N	run/o&m/run
11/07/14	28281	57	2965	126	234	382	0.4	698	27556	108404	0	N	N	run/o&m/run
11/12/14	28401	55	3290	118	264	413	0.1	659	27772	108437	5	N	Y	run/o&m,ted/run
11/17/14	28427	45	2900	102	239	340	2.1	668	27817	108446	0	N	N	down/o&m/run
11/24/14	28594	60	3765	104	309	357	3.1	664	28170	108492	0	N	N	run/o&m/run
12/03/14	28785	58	3465	115	279	345	1.2	682	28559	108546	0	N	N	run/o&m/run
12/08/14	28905	57	3702	111	300	413	0.2	668	28808	108613	0	N	N	run/o&m/run
12/15/14	29068	60	3010	120	240	211	1.8	631	29157	108613	3.5	N	Y	run/o&m,ted,wells/down
12/24/14	29258	60	3951	99	327	291	9	664	29570	108669	0	N	N	run/o&m/run
12/29/14	29377	45	4130	89	348	314	12	690	29863	108704	0	N	N	run/o&m/run
01/07/15	29593	57	3630	108	296	528	4	677	30386	108767	0	N	N	run/o&m/run
01/14/15	29758	50	3190	101	263	259	7	647	30747	108821	0	N	Y	run/o&m,ted,wells/down
01/20/15	29879	60	3365	98	279	283	16	645	31001	108857	0	N	N	run/o&m/run
01/30/15	30066	55	3560	106	291	323	0.3	653	31397	108912	0	N	N	run/o&m/run
02/06/15	30236	52	3650	113	295	264	1.9	660	31789	108962	0	N	Y	run/o&m,ted,wells/down
02/12/15	30378	54	3585	106	293	316	0	669	32047	109003	0	N	N	run/o&m/run
02/17/15	30423	56	3527	110	287	321	8.6	642	32137	109017	3.75	N	Y	run/o&m,ted,wells/down
02/26/15	30616	55	3568	109	290	243	4.8	637	32528	109073	0	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
03/04/15	30760	55	3605	104	296	226	5.9	632	32818	109114	0	N	N	run/o&m/run
03/11/15	30928	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 8"
03/20/15	30929	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 9"
03/24/15	31018	30	2550	104	209	355	3.2	645	33372	109187	0	N	Y	run/o&m,ted/run

[a]	Reading was taken approximately 8-inches from the original location were the first two readings were collected.
[b]	Reading was taken from system display screen.
[c]	New natural gas meter was installed on August 10, 2012.
Note 1:	Multiple system readings were collected with initial air sparge start up and optimize air sparge system.
Note 2:	Multiple system readings were collected to optimize air sparge equipment.
Note 3:	System was shutdown for City of Tucson sampling event and NAPL fingerprint assessment.
Note 4:	Lori Ehman with City of Tucson was on-site and informed Cardno of upcoming well test and asked Cardno to postpone LNAPL until well testing is complete.
Note 5:	Bill with the City of Tucson re-started the system with dilution open and Air Sparge system off.
Note 6:	Re-started Air Sparge system.
Note 7:	The remediation system was shut down due to poor destruction. Inspect the catalytic plate.
Note 8:	Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling. OP hours
	were recorded and no additional readings were collected.
Note 9:	After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additoinal readings were collected.
*	Pre-compliance sample event, due to sample results from 8/12/13 showing poor destruction "NOT COMPLIANCE SAMPLE".
	Highlighted cells indicate vapor sampling events.

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Aug-02	228	228	4,050	592	99	592	99
Solleco 500	Sep-02	324	552	6,500	1,501	250	2,093	349
Solleco 500	Oct-02	360	912	6,100	1,174	196	3,267	545
Solleco 500	Oct-02	344	1,256	4,400	750	125	4,016	670
Solleco 500	Oct-02	145	1,402	8,650	707	118	4,724	788
Solleco 500	Nov-02	339	1,741	4,100	798	133	5,522	921
Solleco 500	Dec-02	664	2,405	1,900	762	127	6,283	1,048
Solleco 500	Jan-03	359	2,764	1,900	489	82	6,772	1,129
Solleco 500	Feb-03	1,104	3,868	2,200	1,395	233	8,167	1,362
Solleco 500	Mar-03	454	4,322	3,650	986	164	9,153	1,526
Solleco 500	Oct-04	264	4,586	337	21,985	3,575	31,138	5,101
Solleco 500	Oct-04	408	4,994	447	784	131	31,922	5,231
Solleco 500	Nov-04	384	5,378	328	979	163	32,901	5,394
Solleco 500	Dec-04	336	5,714	118	629	105	33,530	5,499
Solleco 500	Dec-04	528	6,242	272	355	59	33,885	5,558
Solleco 500	Feb-05	312	6,554	455	484	81	34,369	5,639
Solleco 500	Mar-05	1,536	8,090	557	3,987	665	38,356	6,304
Solleco 500	May-05	840	8,930	220	2,669	445	41,025	6,748
Solleco 500	Jun-05	408	9,338	378	512	85	41,537	6,834
Solleco 500	Jul-05	720	10,058	1,500	1,553	259	43,090	7,093
Solleco 500	Aug-05	768	10,826	1,500	6,572	1,095	49,662	8,188
Solleco 500	Sep-05	744	11,570	1,508	6,367	638	56,029	8,826
Solleco 500	Oct-05	672	12,242	1,612	7,156	1,193	63,185	10,018
Solleco 500	Nov-05	624	12,866	988	4,073	679	67,258	10,697
Solleco 500	Dec-05	528	13,394	1,508	5,260	877	72,518	11,574
Solleco 500	Jan-06	864	14,258	1,196	6,827	1,138	79,345	12,712
Solleco 500	Feb-06	792	15,050	936	4,897	816	84,242	13,528
Solleco 500	Mar-06	720	15,770	1,101	5,237	873	89,479	14,401
Solleco 500	Apr-06	816	16,586	1,300	7,008	1,168	96,487	15,569
Solleco 500	May-06	552	17,138	1,508	5,499	917	101,986	16,485
Solleco 500	Jun-06	840	17,978	624	3,463	577	105,449	17,062
Solleco 500	Jul-06	792	18,770	1,326	6,938	1,156	112,387	18,219
Solleco 500	Aug-06	336	19,106	1,664	3,694	616	116,081	18,834
Solleco 500	Sep-06	984	20,090	2,800	18,528	3,088	134,609	21,922
Solleco 500	Jan-07	2,472	22,562	2,500	46,546	7,758	181,154	29,680
Solleco 500	Jan-07	312	22,874	3,500	5,875	979	187,029	30,659
Solleco 500	Mar-07	2,616	25,490	3,300	49,257	8,210	236,286	38,868
Solleco 500	Aug-07	2,736	28,226	8,500	76,619	12,770	312,905	51,638
Solleco 500	Oct-07	1,032	29,258	11,000	28,900	4,817	341,806	56,455
Solleco 500	Jan-08	2,376	31,634	910	66,538	11,090	408,344	67,545
Solleco 500	Mar-08	1,392	33,026	980	38,982	6,497	447,325	74,042
Solleco 500	Jun-08	864	33,890	610	24,453	4,076	471,778	78,117
Solleco 500	Sep-08	2,112	36,002	500	7,190	1,198	478,968	79,315

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

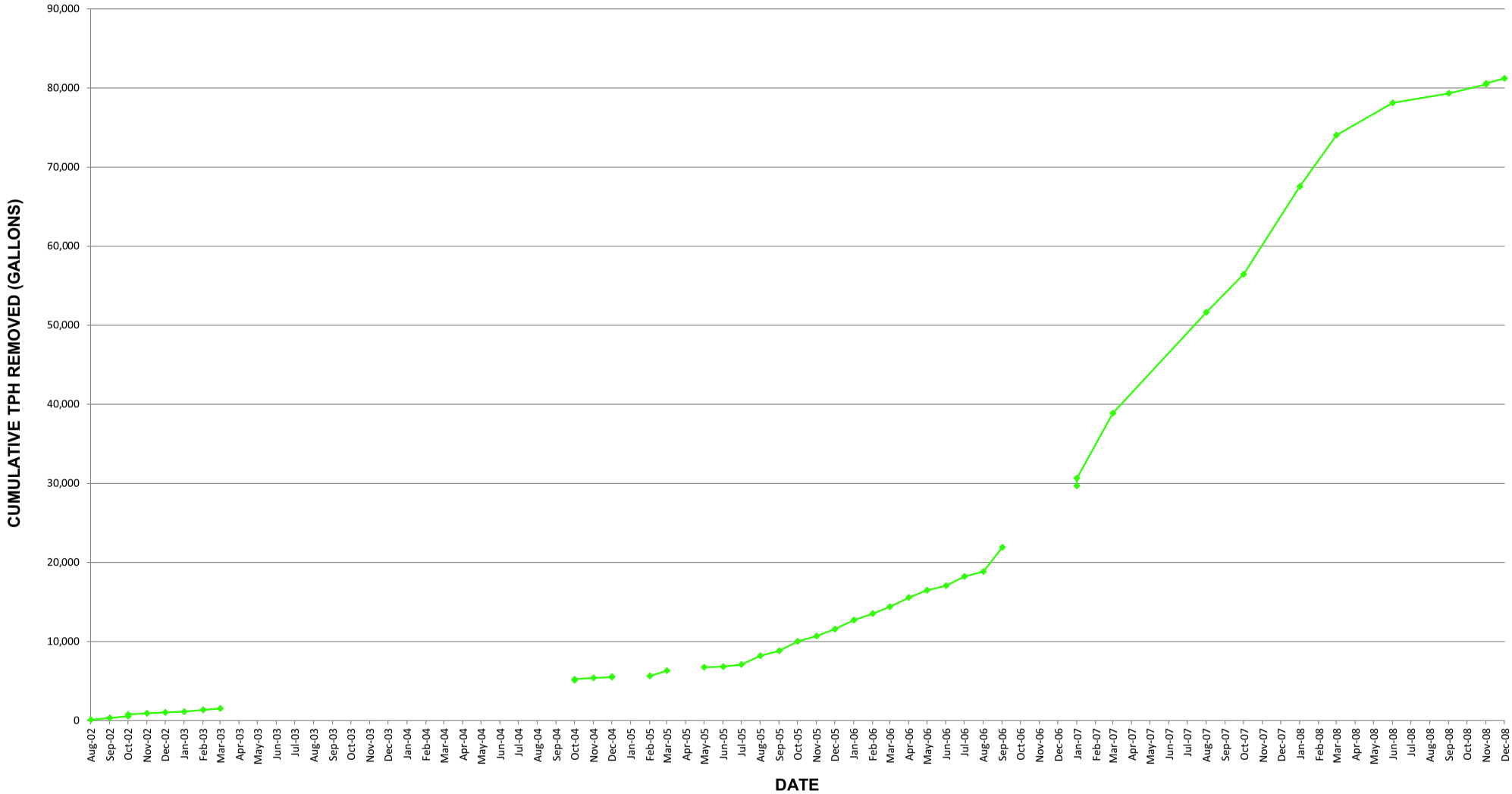
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Nov-08	1,248	37,250	800	6,798	1,133	485,766	80,448
Solleco 500	Nov-08	192	37,442	600	784	131	486,550	80,579
Solleco 500	Dec-08	816	38,258	690	3,833	639	490,383	81,218
Solleco 500	Jan-09	696	38,954	630	2,985	498	493,368	81,715
Solleco 500	Apr-09	2,624	41,578	320	5,716	953	499,084	82,668
Solleco 500	Aug-09	1,068	42,646	510	2,950	492	502,035	83,160
Solleco 500	Nov-09	2,232	44,878	560	6,166	1,028	508,201	84,187
Solleco 500	Mar-10	2,448	47,326	470	6,763	1,127	514,963	85,315
Solleco 500	Aug-10	2,712	50,038	330	7,492	1,249	522,455	86,563
Solleco 500	Nov-10	1,776	51,814	170	7,119	1,186	529,574	87,750
Solleco 500	Mar-11	2,784	54,598	207	11,159	1,860	540,733	89,610
Solleco 500	Jul-11	2,592	57,190	498	10,390	1,732	551,123	91,341
Solleco 500	Sep-11	1,680	58,870	1,160	6,734	1,122	557,857	92,464
Solleco 500	Dec-11	1,094	59,964	901	4,387	731	562,244	93,195
Solleco 500	Apr-12	96	60,060	252	77	13	562,320	93,208
Solleco 500	Apr-12	143	60,203	306	143	24	562,463	93,231
Solleco 500	May-12	524	60,727	164	262	44	562,725	93,275
Solleco 500	May-12	170	60,897	395	323	54	563,048	93,329
Solleco 500	May-12	45	60,942	251	63	11	563,111	93,339
Solleco 500	May-12	79	61,021	263	119	20	563,230	93,359
Solleco 500	May-12	192	61,213	263	288	48	563,518	93,407
Solleco 500	May-12	141	61,354	435	437	73	563,955	93,480
Solleco 500	Jun-12	144	61,498	236	173	29	564,128	93,509
Solleco 500	Jun-12	288	61,786	307	634	106	564,761	93,615
Solleco 500	Jun-12	189	61,975	347	473	79	565,234	93,693
Solleco 500	Aug-12	3,321	63,285	630	15,611	2,602	580,845	96,295
Solleco 500	Sep-12	213	63,498	810	1,263	211	582,108	96,506
Solleco 500	Sep-12	94	63,592	880	602	100	582,710	96,606
Solleco 500	Sep-12	145	63,737	900	945	158	583,655	96,764
Solleco 500	Oct-12	166	63,903	1,100	1,331	222	584,986	96,985
Solleco 500	Oct-12	166	64,069	320	393	66	585,379	97,051
Solleco 500	Oct-12	237	64,306	1,100	1,941	324	587,320	97,374
Solleco 500	Oct-12	67	64,373	730	368	61	587,688	97,436
Solleco 500	Nov-12	360	64,733	460	1,339	223	589,027	97,659
Solleco 500	Nov-12	474	65,207	440	1,281	214	590,308	97,872
Solleco 500	Dec-12	335	65,542	590	1,241	207	591,549	98,079
Solleco 500	Jan-13	476	66,018	760	1,383	231	592,932	98,310
Solleco 500	Jan-13	452	66,470	460	1,290	215	594,222	98,525
Solleco 500	Feb-13	405	66,875	370	853	142	595,075	98,667
Solleco 500	Apr-13	818	67,693	900	4,864	811	599,939	99,478
Solleco 500	Jul-13	1,248	68,941	767	4,553	759	604,492	100,236
Solleco 500	Aug-13	578	69,519	579	1,659	277	606,151	100,513
Solleco 500	Nov-13	884	70,403	891	3,783	631	609,934	101,143

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona

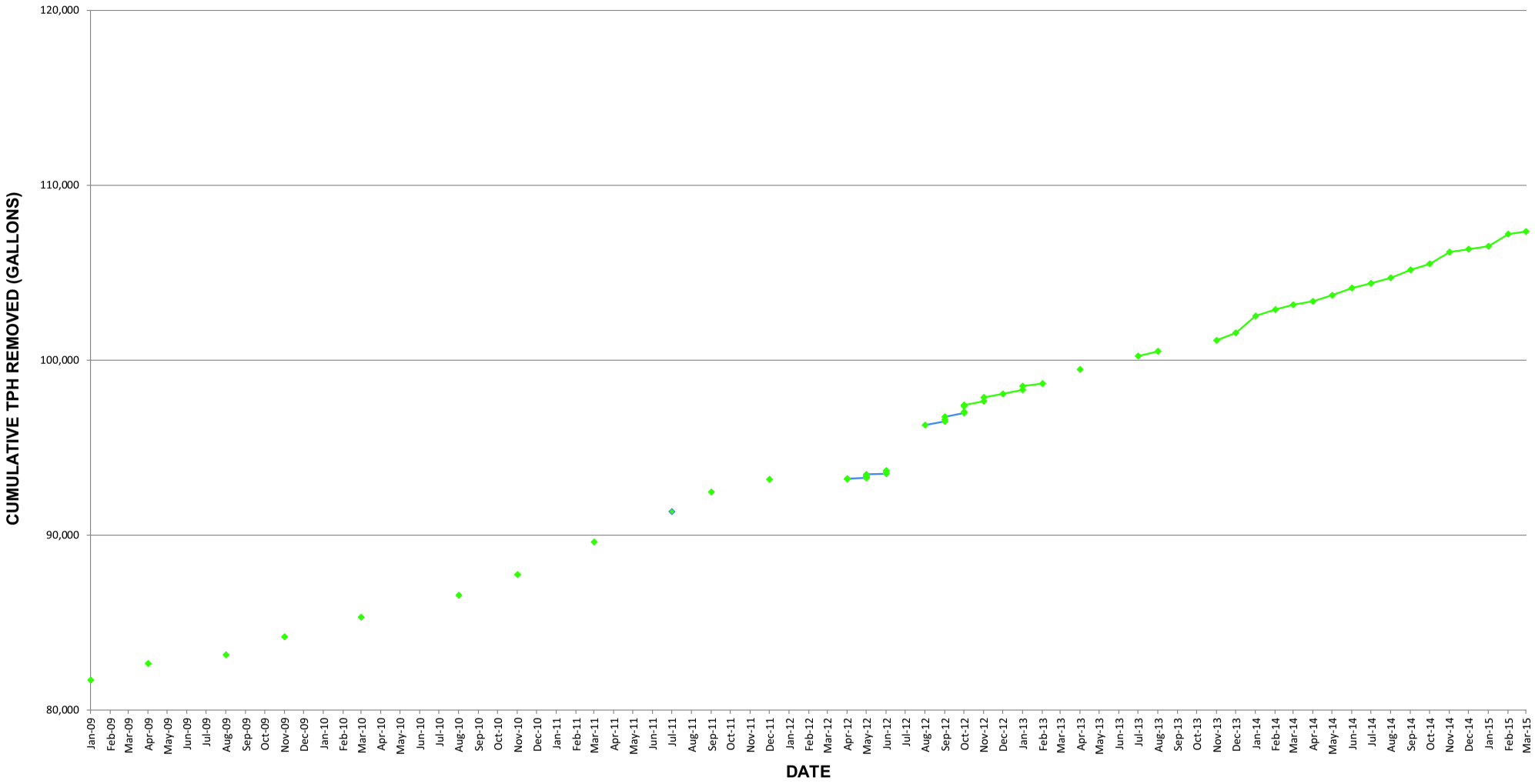
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Dec-13	817	71,220	619	2,547	425	612,481	101,568
Solleco 500	Jan-14	950	72,170	1,210	5,789	965	618,270	102,533
Solleco 500	Feb-14	626	72,796	765	2,203	367	620,473	102,900
Solleco 500	Mar-14	342	73,138	1,350	1,629	272	622,102	103,171
Solleco 500	Apr-14	429	73,567	705	1,189	198	623,291	103,370
Solleco 500	May-14	722	74,289	753	2,087	348	625,378	103,717
Solleco 500	Jun-14	454	74,743	1,540	2,467	411	627,845	104,129
Solleco 500	Jul-14	717	75,460	658	1,621	270	629,466	104,399
Solleco 500	Aug-14	561	76,021	958	1,880	313	631,346	104,712
Solleco 500	Sep-14	777	76,798	965	2,739	457	634,085	105,169
Solleco 500	Oct-14	442	77,240	1,260	2,052	342	636,137	105,511
Solleco 500	Nov-14	974	78,214	1,010	4,037	673	640,174	106,183
Solleco 500	Dec-14	667	78,881	398	990	165	641,164	106,348
Solleco 500	Jan-15	690	79,571	358	1,010	168	642,174	106,516
Solleco 500	Feb-15	665	80,236	1,410	4,183	697	646,357	107,213
Solleco 500	Mar-15	595	80,831	463	895	149	647,252	107,362

(1) = Soil vapor extraction (SVE) well
(2) = Air infiltration/injection well
(3) = Nested vadose zone monitoring probe
(4) = System was shutdown November 1995 and was replaced with a 500-scfm
(5) = System was started on February 13, 1996
(6) = System was shutdown January 2001 and was replaced with a Paragon ET-150
(7) = System was shutdown September 4, 2002 and was restarted on November 4, 2002
(8) = System was shutdown December 31, 2002 for rebound recovery evaluation

Remediation information reported by Hydro Geo Chem
Remediation information reported by Groundwater Technology
Remediation information reported by Fluor Daniel GTI
Remediation information reported by The IT Group
Remediation information reported by SCS Engineers
Remediation information reported by Clear Creek Associates
Remediation information reported by City of Tucson
Average influent concentration
Remediation information reported by Cardno
Mass removal estimated using PID measurements



TFS-10 HISTORICAL TPH MASS REMOVAL
(2002 THROUGH 2008)



TFS-10 HISTORICAL TPH MASS REMOVAL
(2009 THROUGH 2015)

Cardno
Shaping the Future

Cardno

9977 North 90th Street,
Suite 150
Scottsdale, AZ 85258
USA

Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

August 26, 2015
I052000014.Q215TFS10

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Subject: **TFS-10 System Performance Summary**
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from April through June 2015. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

Second Quarter Field Activities

- Weekly system readings and equipment maintenance.
- Monthly well gauging, vapor monitoring, and non-aqueous phase liquid (NAPL) bailing.
- The remediation system has seven zones (1 through 7) which represent remediation wells on the same trunk lines; currently there are 23 wells connected to the seven remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remedial zones 1 through 4 were not operating; all of the remediation wells, excluding, well PCM-535A (zone 7) were operating in zones 5 through 7.
- Adjusted the bypass stingers to optimize the flow rate and vapor recovery in wells PCM-534A and PCM-507A (zone 7).
- On July 6, 2015, a confirmation vapor sample was collected to assess the destruction efficiency of the AS/SVE system for June 2015. The second quarter estimated mass removal of petroleum hydrocarbons were calculated using the July 6th sampling event.
- Removed an estimated 4,920 pounds (approximately 820 gallons) of petroleum hydrocarbons through

the AS/SVE system.

- Manually bailed approximately 0.25 gallons of NAPL from monitor well PCM-516 and 17.75 gallons of NAPL from monitor well WR-220A. During the reporting period a cumulative 18.0 gallons (108 pounds) of NAPL was removed.
- An estimated 11,196 pounds (approximately 1,866 gallons) of petroleum hydrocarbons were removed through the AS/SVE remediation and NAPL removal activities during the reporting year of 2015.
- During the reporting period an estimated 5,028 pounds (approximately 928 gallons) of petroleum hydrocarbons were removed from the Site through AS/SVE remediation and NAPL removal activities. Since April 1, 2012 an estimated 100,613 pounds (approximately 16,769 gallons) of petroleum hydrocarbons have been removed from the Site through AS/SVE remediation and NAPL removal activities.

PROPOSED THIRD QUARTER 2015 SITE ACTIVITIES

- Continue weekly system readings, monthly well gauging, vapor monitoring, and NAPL bailing.
- Continue adjusting system to optimize vapor recovery.
- Continue adjusting bypass stingers to optimize flow rate and vapor recovery in wells PCM-534A and PCM-507A.

Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,

Justin T. Patton
Project Manager
for Cardno
Direct Line 602 909 3448
Email: justin.patton@cardno.com

Enclosures:

Figure 1	TFS-10 Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Influent Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events

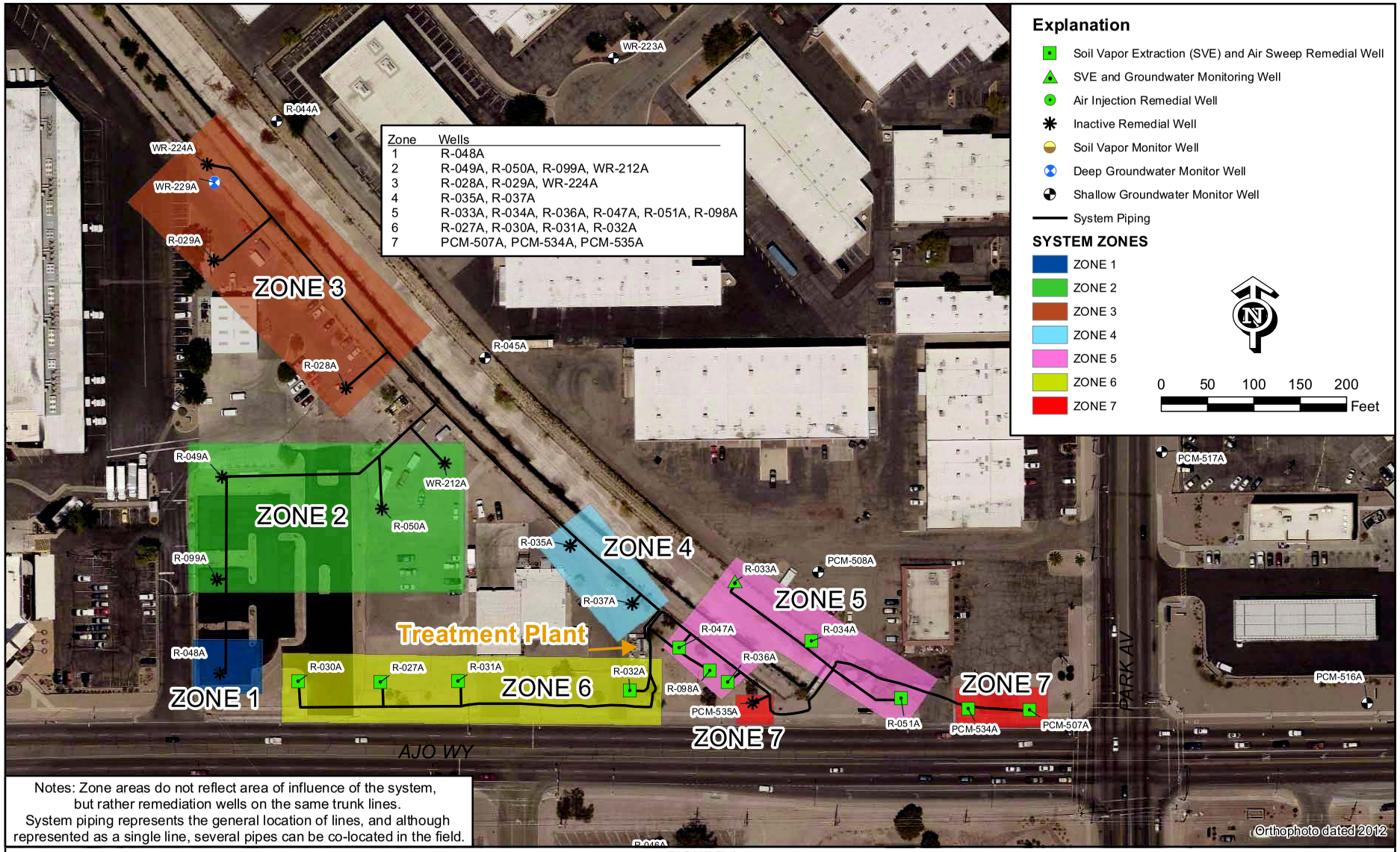
Table 5 Cumulative TPH Mass Removal

Table 6 Manually Bailed NAPL Removal

Table 7 Annual NAPL Removal

Appendix A Weekly Operation and Maintenance System Readings

Appendix B Historical TPH mass removal table and graphs



Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines. System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

CITY OF TUCSON
ENVIRONMENTAL SERVICES

FIGURE 1
TFS-10 SITE LAYOUT AND WELL LOCATION MAP
THOMAS O. PRICE SERVICE CENTER
4004 South Park Avenue
Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

J:\GIS\PRICE\2012\TFSSYS.mxd

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Date	Op Hours	Vacuum (Inches H_2O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
08/27/12	13,472	67	318	480	167
09/05/12	13,685	50	577	471	159
09/18/12	13,779	55	425	468	155
09/24/12	13,924	52	612	466	156
10/01/12	14,090	55	747	469	154
10/08/12	14,256	57	251	476	153
10/18/12	14,493	61	655	479	151
10/22/12	14,560	64	596	484	145
11/06/12	14,920	70	338	520	146
11/27/12	15,394	63	219	395	139
12/11/12	15,729	63	439	404	132
01/02/13	16,205	66	822	246	125
01/21/13	16,657	64	381	399	132
02/07/13	17,062	64	285	366	135
04/30/13	17,880	48	737	425	146
07/15/13	19,128	60	367	306	179
08/12/13	19,706	63	287	319	172
11/07/13	20,590	48	508	309	148
12/12/13	21,407	51	422	324	145
01/14/14	22,357	45	743	324	150
02/19/14	22,983	68	351	296	115
03/27/14	23,325	54	722	227	115
04/14/14	23,754	61	372	253	122
05/15/14	24,476	60	143	247	125
06/05/14	24,930	60	441	227	139
07/07/14	25,647	59	182	221	139
08/06/14	26,208	61	329	225	143
09/10/14	26,985	55	283	235	134
10/02/14	27,427	54	443	237	129
11/12/14	28,401	55	413	264	118
12/15/14	29,068	60	211	240	120
01/14/15	29,758	50	259	263	101
02/17/15	30,423	56	321	287	110
03/24/15	31,018	30	355	209	104
04/27/15	31,686	57	873	280	113
05/26/15	32,228	50	500	265	130
07/06/15	32,998	50	150	369	130
Average		**57**	**435**	**337**	**137**

Notes:
VOC = Volatile organic compounds concentrations reported from PID.
ppmv = Parts per million by volume.
scfm = Standard cubic feet per minute.
Deg. F = Degree Fahrenheit.

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
08/27/12	12:50	9.9	9.9	2.0	8.2	630
09/05/12	9:36	14	17	3.2	12	810
09/18/12	10:55	8.5	12	3.2	16	880
09/24/12	1:00	19	15	2.0	8.5	900
10/01/12	11:10	23	20	2.5	15	1,100
10/08/12	10:30	4.4	3.7	<5.0	4.4	320
10/18/12	11:15	22	18	2.0	12	1,100
10/22/12	11:20	14	13	1.8	7.6	730
11/06/12	11:15	8.1	8.0	<5.0	3.9	460
11/27/12	12:50	5.6	2.9	0.99	7.4	440
12/11/12	12:50	10	8.8	1.3	6.9	590
01/02/13	10:50	18	20	2.8	12	760
01/21/13	11:50	8.5	7.7	1.7	7.8	460
02/07/13	11:35	4.7	3.7	1.2	6.9	370
04/30/13	11:28	17	14	1.7	8.0	900
07/15/13	9:15	3.89	9.42	<2.30	17.2	767
08/12/13	8:40	2.48	5.03	<1.15	13.4	579
11/07/13	10:20	7.43	18.2	2.96	16.7	891
12/12/13	10:25	4.20	12.5	2.11	14.2	619
01/14/14	8:48	8.48	25.0	4.27	25.9	1,210
02/19/14	11:23	4.62	15.5	3.13	16.8	765
03/27/14	11:07	7.73	23.2	3.63	30.1	1,350
04/14/14	9:50	3.48	8.20	1.83	21.1	705
05/15/14	8:50	2.2	4.50	<1.15	9.76	753
06/05/14	9:50	12.0	23.3	3.00	27.0	1,540
07/07/14	9:55	3.37	5.50	<1.15	8.69	658
08/06/14	9:30	5.61	10.6	1.95	16.9	958
09/10/14	11:25	8.36	26.6	4.86	21.0	965
10/02/14	10:23	7.88	21.9	3.13	27.2	1,260
11/12/14	10:43	5.82	19.2	4.40	28.5	1,010
12/15/14	8:20	1.13	3.32	0.40	4.34	398
01/14/15	10:25	2.69	10.5	2.14	9.3	358
02/16/15	10:10	19.6	37.6	4.78	23.8	1,410
03/24/15	10:00	2.6	11.0	2.53	11.8	463
04/27/15	11:00	11.9	25.7	4.18	20.7	979
05/26/15	12:45	1.22	2.64	0.54	4.40	298
07/06/15	1:00	2.65	5.05	0.62	3.82	319
Average		**8.54**	**13.5**	**2.50**	**13.8**	**776**

Notes:
ppmv = Part per million by volume.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
< = Below laboratory reporting limits.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
08/27/12	480	630	9.9	9.9	2.0	8.2	4.70	112.81	5.8E-02	1.4E+00	6.7E-02	1.6E+00	1.6E-02	3.8E-01	6.5E-02	1.6E+00
09/05/12	471	810	14	17	3.2	12	5.93	142.33	8.0E-02	1.9E+00	1.1E-01	2.7E+00	2.5E-02	6.0E-01	9.3E-02	2.2E+00
09/18/12	468	880	8.5	12	3.2	16	6.40	153.64	4.8E-02	1.2E+00	7.9E-02	1.9E+00	2.5E-02	5.9E-01	1.2E-01	3.0E+00
09/24/12	466	900	19	15	2.0	8.5	6.52	156.46	1.1E-01	2.6E+00	9.9E-02	2.4E+00	1.5E-02	3.7E-01	6.5E-02	1.6E+00
10/01/12	469	1,100	23	20	2.5	15	8.02	192.46	1.3E-01	3.1E+00	1.3E-01	3.2E+00	1.9E-02	4.6E-01	1.2E-01	2.8E+00
10/08/12	476	320	4.4	3.7	<5.0	4.4	2.37	56.82	2.5E-02	6.1E-01	2.5E-02	6.0E-01	3.9E-02	9.4E-01	3.5E-02	8.3E-01
10/18/12	479	1,100	22	18	2.0	12	8.19	196.57	1.3E-01	3.1E+00	1.2E-01	2.9E+00	1.6E-02	3.8E-01	9.5E-02	2.3E+00
10/22/12	484	730	14	13	1.8	7.6	5.49	131.81	8.2E-02	2.0E+00	8.9E-02	2.1E+00	1.4E-02	3.4E-01	6.1E-02	1.5E+00
11/06/12	520	460	8.1	8	<5.0	3.9	3.72	89.24	5.1E-02	1.2E+00	5.9E-02	1.4E+00	4.3E-02	1.0E+00	3.3E-02	8.0E-01
11/27/12	395	440	5.6	2.9	1.0	7.4	2.70	64.84	2.7E-02	6.4E-01	1.6E-02	3.9E-01	6.4E-03	1.5E-01	4.8E-02	1.2E+00
12/11/12	404	590	10	8.8	1.3	6.9	3.71	88.92	4.9E-02	1.2E+00	5.0E-02	1.2E+00	8.7E-03	2.1E-01	4.6E-02	1.1E+00
01/02/13	246	760	18	20	2.8	12	2.91	69.75	5.4E-02	1.3E+00	7.0E-02	1.7E+00	1.1E-02	2.7E-01	4.9E-02	1.2E+00
01/21/13	399	460	8.5	7.7	1.7	7.8	2.85	68.47	4.1E-02	9.9E-01	4.3E-02	1.0E+00	1.1E-02	2.7E-01	5.1E-02	1.2E+00
02/07/13	366	370	4.7	3.7	1.2	6.9	2.11	50.52	2.1E-02	5.0E-01	1.9E-02	4.6E-01	7.2E-03	1.7E-01	4.2E-02	1.0E+00
04/30/13	425	900	17	14	1.7	8.0	5.95	142.70	8.8E-02	2.1E+00	8.4E-02	2.0E+00	1.2E-02	2.9E-01	5.6E-02	1.3E+00
07/15/13	306	767	3.89	9.42	<2.30	17.2	3.65	87.56	1.4E-02	3.5E-01	4.1E-02	9.8E-01	1.2E-02	2.8E-01	8.7E-02	2.1E+00
08/12/13	319	579	2.48	5.03	<1.15	13.4	2.87	68.91	9.6E-03	2.3E-01	2.3E-02	5.4E-01	6.0E-03	1.5E-01	7.0E-02	1.7E+00
11/07/13	309	891	7.43	18.2	2.96	16.7	4.28	102.71	2.8E-02	6.7E-01	8.0E-02	1.9E+00	1.5E-02	3.6E-01	8.5E-02	2.0E+00
12/12/13	324	619	4.20	12.5	2.11	14.2	3.12	74.82	1.6E-02	4.0E-01	5.7E-02	1.4E+00	1.1E-02	2.7E-01	7.6E-02	1.8E+00
01/14/14	324	1,210	8.48	25.0	4.27	25.9	6.09	146.26	3.3E-02	8.0E-01	1.1E-01	2.7E+00	2.3E-02	5.5E-01	1.4E-01	3.3E+00
02/19/14	296	765	4.62	15.5	3.13	16.8	3.52	84.48	1.7E-02	4.0E-01	6.5E-02	1.6E+00	1.5E-02	3.7E-01	8.2E-02	2.0E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/27/14	227	1,350	7.73	23.2	3.63	30.1	4.76	114.33	2.1E-02	5.1E-01	7.4E-02	1.8E+00	1.4E-02	3.3E-01	1.1E-01	2.7E+00
04/14/14	253	705	3.48	8.20	1.83	21.1	2.77	66.54	1.1E-02	2.6E-01	2.9E-02	7.0E-01	7.6E-03	1.8E-01	8.8E-02	2.1E+00
05/15/14	247	753	2.23	4.50	1.15	9.76	2.89	69.39	6.7E-03	1.6E-01	1.6E-02	3.8E-01	4.7E-03	1.1E-01	4.0E-02	9.5E-01
06/05/14	227	1,540	12.0	23.3	3.00	27	5.43	130.42	3.3E-02	7.9E-01	7.5E-02	1.8E+00	1.1E-02	2.7E-01	1.0E-01	2.4E+00
07/07/14	221	658	3.37	5.50	1.15	8.69	2.26	54.25	9.0E-03	2.2E-01	1.7E-02	4.1E-01	4.2E-03	1.0E-01	3.2E-02	7.6E-01
08/06/14	225	958	5.61	10.6	1.95	16.9	3.35	80.41	1.5E-02	3.7E-01	3.4E-02	8.1E-01	7.2E-03	1.7E-01	6.3E-02	1.5E+00
09/10/14	235	965	8.36	26.6	4.86	21	3.53	84.60	2.4E-02	5.7E-01	8.8E-02	2.1E+00	1.9E-02	4.5E-01	8.1E-02	2.0E+00
10/02/14	237	1,260	7.88	21.9	3.13	27.2	4.64	111.40	2.3E-02	5.4E-01	7.3E-02	1.8E+00	1.2E-02	2.9E-01	1.1E-01	2.5E+00
11/12/14	264	1,010	5.82	19.2	4.40	28.5	4.14	99.47	1.9E-02	4.5E-01	7.2E-02	1.7E+00	1.9E-02	4.6E-01	1.2E-01	3.0E+00
12/15/14	240	398	1.13	3.32	0.40	4.34	1.48	35.63	3.3E-03	7.9E-02	1.1E-02	2.7E-01	1.6E-03	3.8E-02	1.7E-02	4.1E-01
01/14/15	263	358	2.69	10.5	2.14	9.27	1.46	35.13	8.6E-03	2.1E-01	3.9E-02	9.4E-01	9.3E-03	2.2E-01	4.0E-02	9.6E-01
02/16/15	287	1,410	19.6	37.6	4.78	23.8	6.29	150.97	6.8E-02	1.6E+00	1.5E-01	3.7E+00	2.3E-02	5.4E-01	1.1E-01	2.7E+00
03/24/15	209	463	2.60	11.0	2.53	11.8	1.50	36.10	6.6E-03	1.6E-01	3.3E-02	7.8E-01	8.7E-03	2.1E-01	4.1E-02	9.8E-01
04/27/15	280	979	11.9	25.7	4.18	20.7	4.26	102.26	4.0E-02	9.7E-01	1.0E-01	2.4E+00	1.9E-02	4.6E-01	9.6E-02	2.3E+00
05/26/15	265	298	1.22	2.64	0.54	4.4	1.23	29.46	3.9E-03	9.4E-02	9.9E-03	2.4E-01	2.4E-03	5.7E-02	1.9E-02	4.6E-01
07/06/15	369	319	2.65	5.05	0.62	3.82	1.83	43.91	1.2E-02	2.8E-01	2.6E-02	6.3E-01	3.8E-03	9.0E-02	2.3E-02	5.6E-01
AVERAGE	**337**	**776**	**8.54**	**13.5**	**2.50**	**13.8**	**3.97**	**95.31**	**3.8E-02**	**9.2E-01**	**6.2E-02**	**1.5E+00**	**1.4E-02**	**3.4E-01**	**7.1E-02**	**1.7E+00**

Notes:
TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
Lbs = Pounds.
scfm = Standard cubic feet per minute.
ppmv = Parts per million by volume.
< = Below minimum laboaratory reporting limits.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
08/27/12	3,321	**15,611**	**191.34**	**223.23**	**52.53**	**215.4**
09/05/12	213	**1,263**	**17.03**	**24.12**	**5.29**	**19.8**
09/18/12	94	**602**	**4.53**	**7.47**	**2.32**	**11.6**
09/24/12	145	**945**	**15.57**	**14.34**	**2.23**	**9.5**
10/01/12	166	**1,331**	**21.71**	**22.03**	**3.21**	**19.2**
10/08/12	166	**393**	**4.22**	**4.14**	**6.51**	**5.7**
10/18/12	237	**1,941**	**30.28**	**28.90**	**3.74**	**22.4**
10/22/12	67	**368**	**5.50**	**5.96**	**0.96**	**4.1**
11/06/12	360	**1,339**	**18.38**	**21.18**	**15.42**	**12.0**
11/27/12	474	**1,281**	**12.71**	**7.68**	**3.05**	**22.8**
12/11/12	335	**1,241**	**16.41**	**16.85**	**2.90**	**15.4**
01/02/13	476	**1,383**	**25.56**	**33.13**	**5.40**	**23.2**
01/21/13	452	**1,290**	**18.59**	**19.64**	**5.05**	**23.2**
02/07/13	405	**853**	**8.45**	**7.76**	**2.93**	**16.9**
04/30/13	818	**4,864**	**71.66**	**68.85**	**9.74**	**45.8**
07/15/13	1,248	**4,553**	**18.01**	**50.89**	**14.47**	**108.2**
08/12/13	578	**1,659**	**5.54**	**13.12**	**3.49**	**40.7**
11/07/13	884	**3,783**	**24.61**	**70.32**	**13.32**	**75.2**
12/12/13	817	**2,547**	**13.48**	**46.80**	**9.20**	**61.9**
01/14/14	950	**5,789**	**31.65**	**108.85**	**21.66**	**131.4**
02/19/14	626	**2,203**	**10.38**	**40.63**	**9.56**	**51.3**
03/27/14	342	**1,629**	**7.28**	**25.48**	**4.64**	**38.5**
04/14/14	429	**1,189**	**4.58**	**12.59**	**3.27**	**37.7**
05/15/14	722	**2,087**	**4.82**	**11.35**	**3.38**	**28.7**
06/05/14	454	**2,467**	**14.99**	**33.97**	**5.09**	**45.8**
07/07/14	717	**1,621**	**6.47**	**12.33**	**3.00**	**22.7**
08/06/14	561	**1,880**	**8.59**	**18.93**	**4.06**	**35.1**
09/10/14	777	**2,739**	**18.51**	**68.70**	**14.62**	**63.2**
10/02/14	442	**2,052**	**10.01**	**32.45**	**5.40**	**46.9**
11/12/14	974	**4,037**	**18.14**	**69.84**	**18.64**	**120.7**
12/15/14	667	**990**	**2.19**	**7.52**	**1.06**	**11.4**
01/14/15	690	**1,010**	**5.92**	**26.95**	**6.40**	**27.7**
02/17/15	665	**4,183**	**45.36**	**101.51**	**15.03**	**74.8**
03/24/15	595	**895**	**3.92**	**19.35**	**5.18**	**24.2**
04/27/15	668	**2,846**	**26.99**	**68.00**	**12.88**	**63.8**
05/26/15	542	**665**	**2.12**	**5.36**	**1.28**	**10.4**
07/06/15	770	**1,409**	**9.13**	**20.30**	**2.90**	**17.9**
TOTAL	**22,847**	**86,939**	**754.6**	**1,370**	**299.8**	**1,605**

Notes:

TPH	=	Total petroleum hydrocarbons analyzed using EPA Method 8015.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
lbs	=	Pounds.
OP Hours	=	Duration of SVE operation during period.

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs)[a]	Cumulative TPH (Lbs)	TPH (Gallons)[b]	Cumulative TPH (Gallons)[b]	Manually Bailed (Gallons)	Well Pumps (Gallons)[c]	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs)[d]	TPH (Gallons)[d]
04/03/12 - **08/27/12**	3321	15,611	15,611	2,602	2,602	83.50	520.00	603.50	1,277	23,270	3,878
08/27/12 - **09/05/12**	213	1,263	16,874	211	2,812	3.50	30.00	33.50	1,310	24,734	4,122
09/05/12 - **09/18/12**	94	602	17,476	100	2,913	6.25	33.50	39.75	1,350	25,575	4,262
09/18/12 - **09/24/12**	145	945	18,421	158	3,070	4.00	20.00	24.00	1,374	26,664	4,444
09/24/12 - **10/01/12**	166	1,331	19,752	222	3,292	3.50	23.25	26.75	1,401	28,156	4,693
10/01/12 - **10/08/12**	166	393	20,145	66	3,358	3.00	23.25	26.25	1,427	28,706	4,784
10/08/12 - **10/18/12**	237	1,941	22,086	324	3,681	3.00	33.00	36.00	1,463	30,863	5,144
10/18/12 - **10/22/12**	67	368	22,454	61	3,742	3.00	13.28	16.28	1,479	31,329	5,221
10/22/12 - **11/06/12**	360	1,339	23,793	223	3,965	9.25	50.00	59.25	1,538	33,023	5,504
11/06/12 - **11/27/12**	474	1,281	25,073	213	4,179	9.25	62.37	71.62	1,610	34,733	5,789
11/27/12 - **12/11/12**	335	1,241	26,315	207	4,386	9.50	36.52	46.02	1,656	36,251	6,042
12/11/12 - **01/02/13**	476	1,383	27,698	231	4,616	9.50	85.85	95.35	1,751	38,206	6,368
01/02/13 - **01/21/13**	452	1,290	28,987	215	4,831	9.50	72.56	82.06	1,833	39,988	6,665
01/21/13 - **02/07/13**	405	853	29,840	142	4,973	6.50	64.92	71.42	1,905	41,269	6,878
02/07/13 - **04/30/13**	818	4,864	34,704	811	5,784	13.50	191.00	204.50	2,109	47,360	7,893
04/30/13 - **07/15/13**	1248	4,553	39,257	759	6,543	8.25	---	8.25	2,118	51,962	8,660
07/15/13 - **08/12/13**	578	1,659	40,916	277	6,819	5.25	---	5.25	2,123	53,653	8,942
08/12/13 - **11/07/13**	884	3,783	44,699	631	7,450	6.75	---	6.75	2,130	57,477	9,579
11/07/13 - **12/12/13**	817	2,547	47,246	424	7,874	9.75	---	9.75	2,139	60,082	10,014
12/12/13 - **01/14/14**	950	5,789	53,036	965	8,839	14.25	---	14.25	2,154	65,957	10,993
01/14/14 - **02/19/14**	626	2,203	55,239	367	9,206	18.00	---	18.00	2,172	68,269	11,378
02/19/14 - **03/27/14**	342	1,629	56,868	272	9,478	0.00	---	0.00	2,172	69,898	11,650
03/27/14 - **04/14/14**	429	1,189	58,058	198	9,676	9.50	---	9.50	2,181	71,144	11,857
04/14/14 - **05/15/14**	722	2,087	60,145	348	10,024	4.75	---	4.75	2,186	73,260	12,210
05/15/14 - **06/05/14**	454	2,467	62,612	411	10,435	14.25	---	14.25	2,200	75,813	12,635

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs)[a]	Cumulative TPH (Lbs)	TPH (Gallons)[b]	Cumulative TPH (Gallons)[b]	Manually Bailed (Gallons)	Well Pumps (Gallons)[c]	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs)[d]	TPH (Gallons)[d]
06/05/14 - **07/07/14**	717	1,621	64,233	270	10,705	8.75	---	8.75	2,209	77,486	12,914
07/07/14 - **08/06/14**	561	1,880	66,112	313	11,019	8.75	---	8.75	2,218	79,418	13,236
08/06/14 - **09/10/14**	777	2,739	68,851	456	11,475	5.00	---	5.00	2,223	82,187	13,698
09/10/14 - **10/02/14**	442	2,052	70,903	342	11,817	4.50	---	4.50	2,227	84,266	14,044
10/02/14 - **11/12/14**	974	4,037	74,940	673	12,490	5.50	---	5.50	2,233	88,336	14,723
11/12/14 - **12/15/14**	667	990	75,930	165	12,655	15.25	---	15.25	2,248	89,417	14,903
12/15/14 - **01/14/15**	690	1,010	76,940	168	12,823	4.50	---	4.50	2,252	90,454	15,076
01/14/15 - **02/17/15**	665	4,183	81,123	697	13,521	3.75	---	3.75	2,256	94,660	15,777
02/17/15 - **03/24/15**	595	895	82,018	149	13,670	5.00	---	5.00	2,261	95,585	15,931
03/24/15 - **04/27/15**	668	2,846	84,865	474	14,144	4.25	---	4.25	2,265	98,457	16,409
04/27/15 - **05/26/15**	542	665	85,530	111	14,255	3.75	---	3.75	2,269	99,144	16,524
05/26/15 - **07/06/15**	770	1,409	86,939	235	14,490	10.00	---	10.00	2,279	100,613	16,769

Notes:

BOLD	=	Sample collection date.
TPH	=	Total petroleum hydrocarbons analyzed using EPA Method 8015.
NAPL	=	Non-aqueous phase liquid.
Lbs	=	Pounds.
---	=	All skimmer pump extraction wells were converted to air-sparge technology.
a	=	TPH lbs are calculated from mass removal from SVE remediaiton system.
b	=	TPH gallons are converted to gallons using 6 lbs = 1 gallon of TPH.
c	=	Well pump totals are calculated by subtracting the total volume of NAPL (combination of manually bailed and pneumatically pumped from well) in the storage vessel minus the manually bailed NAPL and averaged over the NAPL collection period.
d	=	Cumulative TPH lbs and gallons are calculated by adding NAPL removed from wells to mass removal from SVE remediaiton system.

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
04/03/12	R-028A,PCM-516	4.00	4.00
04/17/12	PCM-516	2.25	6.25
05/01/12	PCM-516	4.25	10.50
05/10/12	PCM-516	2.50	13.00
05/17/12	R-32,PCM-516	3.50	16.50
05/25/12	R-017A, 018A, 028A, 035A, 037A, PCM-516, WR-215A	11.3	27.75
05/31/12	PCM-516	3.00	30.75
06/06/12	PCM-516,17,18	7.75	38.50
06/12/12	PCM-516,17,18	3.25	41.75
06/18/12	PCM-516	3.00	44.75
06/28/12	PCM-516,35,37	5.75	50.50
07/05/12	PCM-516, R-099	5.25	55.75
07/10/12	PCM-516	3.00	58.75
07/18/12	PCM-516, R-099	7.50	66.25
07/25/12	PCM-516	3.00	69.25
07/30/12	PCM-516	3.25	72.50
08/10/12	PCM-516	8.00	80.50
08/27/12	PCM-516	3.00	83.50
09/05/12	PCM-516	3.50	87.00
09/14/12	PCM-516	3.00	90.00
09/18/12	PCM-516	3.25	93.25
09/24/12	PCM-516	4.00	97.25
10/01/12	PCM-516	3.50	100.75
10/08/12	PCM-516	3.00	103.75
10/18/12	PCM-516	3.00	106.75
10/22/12	PCM-516	3.00	109.75
11/01/12	PCM-516	3.00	112.75
11/06/12	PCM-516	3.25	116.00
11/13/12	PCM-516	3.25	119.25
11/19/12	PCM-516	3.00	122.25
11/27/12	PCM-516	3.00	125.25
12/04/12	PCM-516	3.00	128.25
12/11/12	PCM-516	3.50	131.75
12/18/12	PCM-516	3.25	135.00
12/27/12	PCM-516	3.00	138.00
01/02/13	PCM-516	3.25	141.25
01/07/13	PCM-516	3.25	144.50
01/14/13	PCM-516	3.25	147.75
01/21/13	PCM-516	3.00	150.75
01/28/13	PCM-516	3.50	154.25
02/07/13	PCM-516	3.00	157.25
02/11/13	PCM-516	3.00	160.25
02/19/13	PCM-516	3.50	163.75
02/25/13	PCM-516	3.50	167.25
03/04/13	PCM-516	3.50	170.75
05/15/13	R-028A, 035A, 037A, 050A, PCM-516	4.00	174.75
06/13/13	PCM-516	2.25	177.00
06/24/13	PCM-516	2.00	179.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
07/31/13	PCM-516	1.75	180.75
08/05/13	PCM-516	2.00	182.75
08/12/13	PCM-516	1.50	184.25
08/19/13	PCM-516	1.00	185.25
09/04/13	PCM-516	1.25	186.50
10/10/13	PCM-516	1.75	188.25
10/21/13	PCM-516	0.75	189.00
10/30/13	PCM-516	1.00	190.00
11/07/13	PCM-516	1.00	191.00
11/11/13	PCM-516	1.00	192.00
11/25/13	PCM-516, WR-220A	5.00	197.00
12/02/13	PCM-516, WR-220A	3.75	200.75
12/18/13	PCM-516, WR-220A	3.25	204.00
01/02/14	PCM-516, WR-220A	4.00	208.00
01/07/14	PCM-516, WR-220A	3.50	211.50
01/14/14	PCM-516, WR-220A	3.50	215.00
01/22/14	PCM-516, WR-220A	3.25	218.25
02/03/14	PCM-516, WR-220A	4.00	222.25
02/10/14	PCM-516, WR-220A	4.00	226.25
02/19/14	PCM-516, WR-220A	3.25	229.50
04/03/14	PCM-516, WR-220A	5.00	234.50
04/07/14	PCM-516, WR-220A	4.50	239.00
04/25/14	PCM-516, WR-220A	4.75	243.75
05/19/14	PCM-516, WR-220A	5.00	248.75
05/27/14	PCM-516, WR-220A	4.50	253.25
06/05/14	PCM-516, WR-220A	4.75	258.00
06/16/14	PCM-516, WR-220A	4.00	262.00
07/07/14	PCM-516, WR-220A	4.75	266.75
07/14/14	PCM-516, WR-220A	4.25	271.00
07/23/14	PCM-516, WR-220A	4.50	275.50
08/06/14	PCM-516, WR-220A	5.00	280.50
10/02/14	PCM-516, WR-220A	4.50	285.00
10/08/14	PCM-516, WR-220A	5.50	290.50
11/25/14	R-031A, R-098, PCM-507, PCM-516, WR-220A	11.75	302.25
12/15/14	PCM-516, WR-220A	3.50	305.75
01/15/15	PCM-516, WR-220A	4.50	310.25
02/17/15	PCM-516, WR-220A	3.75	314.00
03/16/15	PCM-516, WR-220A	5.00	319.00
04/21/15	PCM-516, WR-220A	4.25	323.25
05/19/15	WR-220A	3.75	327.00
06/16/15	WR-220A	10.00	337.00

Notes:

NAPL = Non-aqueous phase liquid.

TABLE 7
ANNUAL NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Time Period	NAPL Removed Bailed/Pumped (Gallons)	Cummulative NAPL Removal (Gallons)
1998	86	86
1999	131	217
2000	45	262
2001	45	307
2002	28	335
2003	956	1,291
2004	1,210	2,501
2005	1,365	3,866
2006	923	4,789
2007	2,315	7,104
2008	2,577	9,681
2009	1,200	10,881
2010	1,703	12,584
2011	1,750	14,334
2012	1,690	16,024
2013	473	16,497
2014	133	16,630
2015	31	16,528

Notes:

NAPL = Non-aqueous phase liquid.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
04/03/12	10151	64	2700	134	211	252	0.7	619	82438	103776	4.00	N	N	run/o&m/run
04/09/12	10294	59	2800	145	215	306	1.3	601	82724	103806	0.00	N	N	run/o&m/run
05/01/12	10818	58	2400	146	184	164	4	624	83794	103918	4.25	N	N	run/o&m/run
05/08/12	10984	58	2400	137	186	246	4	614	84141	103954	0.00	N	N	run/o&m/run "see note 1"
	10985	57	2400	144	184	368	1	691	84143	103955		N	N	
	10988	85	4200[a]	166	311	395	1	696	84148	103955		N	N	
05/10/12	11033	67	4800	153	363	251	2	623	84241	103968	2.50	N	N	run/o&m/run
05/17/12	11109	65	4900	163	365	238	1	627	84388	103988	3.50	N	N	run/o&m/run "see note 2"
	11112	63	5000	169	369	263	4	630	84393	103989		N	N	
05/25/12	11304	63	NT[b]	160	450[b]	246	2	635	84765	104034	11.25	N	N	run/o&m/run
05/31/12	11443	55	NT	146	459	255	3	620	85034	104067	3.00	N	N	run/o&m/run "see note 2"
	11445	54	NT	155	458	435	0	704	85039	104067		N	N	
06/28/12	12066	60	NT	168	472	347	21	688	86299	104213	5.75	N	N	run/o&m/run
07/05/12	12237	77	NT	171	481	635	7	778	86647	104254	5.25	N	N	run/o&m/run
07/25/12	12701	62	NT	159	462	558	11	705	87525	104367	3.00	N	N	run/o&m/run
07/30/12	12820	63	NT	157	465	287	2	658	87754	104397	3.25	N	N	run/o&m/run
08/10/12	13070	59	NT	169	479	221	6	644	0004[c]	104459	8.00	N	N	run/o&m/run
08/14/12	13163	60	NT	171	485	233	13	653	00168	104484	0.00	N	N	run/o&m/run
08/20/12	13305	67	NT	169	483	256	16	654	00431	104521	8.00	N	N	run/o&m/run
08/27/12	13472	67	NT	167	480	318	11	685	00733	104565	3.00	N	Y	run/o&m/run
09/05/12	13683	68	NT	154	463	302	14	655	1119	104622	3.50	N	N	run/o&m/run "see note 2"
	13685	50	NT	159	471	577	9	619	1119	104622		N	Y	run/o&m/run "see note 2"
09/18/12	13779	55	NT	155	468	425	18	633	1297	104651	3.25	N	Y	run/o&m/run
09/24/12	13924	52	NT	156	466	612	10	622	1576	104685	4.00	N	Y	run/o&m/run
10/01/12	14090	55	NT	154	469	747	6	649	1910	104722	3.50	N	Y	run/o&m/run
10/08/12	14256	57	NT	153	476	251	0	647	2228	104764	3.00	N	Y	run/o&m/run
10/18/12	14493	61	NT	151	479	655	16	636	2688	104818	3.00	N	Y	run/o&m/run
10/22/12	14560	64	NT	145	484	596	7	638	2816	104837	3.00	N	Y	run/o&m/run
11/01/12	14800	74	NT	149	520	472	16	636	3277	104901	3.00	N	N	run/o&m/run
11/06/12	14920	70	NT	146	520	338	9	643	3504	104933	3.25	N	Y	run/o&m/run
11/13/12	15067	71	5150	140	398	481	9	644	3790	104972	3.25	N	N	run/o&m/run
11/19/12	15202	62	4950	141	382	231	2	628	4060	105009	3.00	N	N	run/o&m/run
11/27/12	15394	63	5100	139	395	219	6	614	4440	105061	3.00	N	Y	run/o&m/run
12/04/12	15559	65	5000	139	387	286	4	628	4771	105106	3.00	N	N	run/o&m/run
12/11/12	15729	63	5160	132	404	439	26	635	5118	105152	3.50	N	Y	run/o&m/run
12/18/12	15889	64	2460	130	193	276	0	618	5440	105192	3.25	N	N	run/o&m/run
12/27/12	16107	64	2600	127	205	959	12	636	5899	105246	3.00	N	N	run/o&m/run
01/02/13	16205	66	3100	125	246	822	12	627	6105	105274	3.25	N	Y	down/o&m,ted/run
01/07/13	16325	67	5255	128	414	359	6	642	6355	106307	3.25	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
01/14/13	16493	66	5150	120	411	346	21	625	6079	105354	3.25	N	N	run/o&m/run
01/16/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
01/21/13	16657	64	5100	132	399	381	6	637	7070	105398	3.00	N	Y	run/o&m,ted/run
01/28/13	16822	63	4900	125	388	305	9	626	7410	105443	3.50	N	N	run/o&m/run
02/07/13	17062	64	4700	135	366	285	7	690	7920	105509	3.00	N	Y	run/o&m,ted/run
02/11/13	17157	62	4736	125	375	165	4	687	8116	105535	3.00	N	N	run/o&m/run
02/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
02/19/13	17349	54	5100	127	403	243	27	620	8509	105588	3.50	N	N	run/o&m/run
02/25/13	17494	64	4950	124	393	266	5	640	8815	105627	3.50	N	N	run/o&m/run
03/04/13	17659	64	5150	127	407	256	28	1014	9167	105672	3.50	N	N	run/o&m/run
03/13/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	run/down "see note 3"
03/20/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
03/26/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down "see note 4"
04/09/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/19/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
04/23/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/25/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/30/13	17880	48	5560	146	425	737	32	690	9643	105750	0.00	N	Y	down/o&m/ted/down
05/15/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.00	NT	N	Down/monthly well
05/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/run "see note 5"
05/30/13	18050	33	8730	145	668	774	65	776	9978	105803	0.00	N	N	run/o&m/run "see note 6"
06/06/13	18218	54	9500	164	706	235	0	625	10289	105850	0.00	N	N	run/o&m/run
06/13/13	18387	64	9240	176	679	317	58	653	10589	105899	2.25	N	Y	run/o&m,ted/run
06/21/13	18574	72	9300	168	686	280	40	646	10907	105956	0.00	N	N	run/o&m/run
06/24/13	18647	73	9265	166	686	320	61	655	11033	105978	2.00	N	N	run/o&m/run
07/01/13	18792	64	5520	165	480	266	24	631	11284	106023	2.25	N	N	run/o&m/run
07/08/13	18959	58	4039	175	295	296	31	647	11550	106068	2.00	N	N	run/o&m/run
07/15/13	19128	60	4220	179	306	367	32	658	11821	106114	1.25	N	Y	run/o&m,ted/run
07/25/13	19363	61	4165	173	305	312	28	640	12213	106191	2.00	N	N	run/o&m/run
07/31/13	19418	60	4202	168	310	247	19	644	12302	106209	1.75	N	N	run/o&m/run
08/05/13	19538	64	4244	162	316	265	29	660	12498	106240	2.00	N	N	run/o&m/run
08/12/13	19706	63	4355	172	319	287	34	652	12772	106288	1.50	N	Y	run/o&m,ted/run
08/19/13	19874	64	4390	172	322	274	51	636	13045	106336	1.00	N	N	run/o&m/down "see note 7"
09/04/13	19877	60	4335	172	318	286	31	626	13052	106345	1.25	N	Y	down/o&m,ted/down
10/08/13	19879	60	4401	168	325	447	44	637	13054	106363	0.00	N	N	Down/O&M/run
10/10/13	19922	56	4567	152	346	1051	103	770	13125	106376	1.75	N	Y	run/o&m,ted/run
10/15/13	20046	54	4166	160	311	245	14	630	13334	106412	0.00	N	N	run/wells,o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
10/21/13	20181	50	4000	153	302	459	19	667	13554	106449	0.75	N	N	run/o&m/run
10/30/13	20398	45	4065	153	307	377	24	636	13897	106505	1.00	N	N	run/o&m/run
11/07/13	20590	48	4063	148	309	508	4	682	14205	106556	1.00	N	Y	run/o&m,ted/run
11/11/13	20685	49	4100	149	312	296	11	631	14357	106578	1.00	N	N	run/o&m,well/down
11/19/13	20854	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	N	N	run/o&m/run
11/25/13	20997	49	4040	138	313	429	7	669	14870	106662	5.00	N	N	run/o&m/run
12/02/13	21165	48	4065	144	311	502	6	691	15149	106707	3.75	N	N	run/o&m/run
12/12/13	21407	51	4230	145	324	422	0	630	15550	106773	3.50	N	Y	run/o&m,ted/run
12/18/13	21523	49	4205	148	328	389	0	602	15746	106806	3.25	N	N	run/o&m/run
12/24/13	21668	49	4255	143	327	308	0	630	15971	106841	0.00	N	N	run/o&m/run
01/02/14	21881	48	4100	147	313	281	0	628	16294	106898	4.00	N	N	run/o&m/run
01/07/14	22004	49	4165	149	317	322	12	629	16485	NT	3.5	N	N	run/o&m/run
01/14/14	22169	45	4275	150	324	743	2	640	16734	106907	3.5	N	Y	run/o&m,ted/run
01/22/14	22357	48	4220	150	320	503	1	670	17016	107020	3.25	N	N	run/o&m/run
01/28/14	22497	46	4945	160	369	467	0	655	17223	107057	0	N	N	down/o&m/run
02/03/14	22601	40	4366	138	338	697	9	661	17361	107083	4	N	N	run/o&m/run
02/10/14	22768	65	3505	117	281	754	7	667	17663	107119	4	N	N	run/o&m/run
02/19/14	22983	68	3685	115	296	351	13	643	18072	107162	3.25	N	Y	run/o&m,ted/run
02/24/14	23012	NT	NT	NT	NT	NT	NT	NT	18126	107169	0	N	N	don/o&m/down
03/04/14	23106	58	3700	112	300	454	9	505	18305	107187	0	N	N	run/o&m/run
03/12/14	23250	NT	NT	NT	NT	NT	NT	NT	NT	NT	0	N	N	down for annual
03/27/14	23325	54	2820	115	227	722	1	552	18678	107223	0	N	Y	run/o&m,ted/run
04/03/14	23493	62	3330	114	269	410	7	642	18971	107253	5	N	N	run/o&m/run
04/07/14	23587	60	3285	118	263	527	4	662	19144	107270	4.5	N	N	run/o&m/run
04/14/14	23754	61	3175	122	253	372	7	645	19438	107303	0	N	Y	run/o&m,ted,wells/run
04/25/14	23992	61	3240	117	260	224	7	634	19866	107352	4.75	N	N	run/o&m/run
05/01/14	24136	64	3085	116	248	382	6	634	20133	107382	0	N	N	run/o&m/run
05/07/14	24282	61	3188	122	254	317	13	651	20391	107413	0	N	N	run/o&m/run
05/15/14	24476	60	3120	125	247	143	0	645	20747	107451	0	N	Y	run/o&m,ted,wells/run
09/19/14	24568	61	3165	123	252	282	0	639	20910	107468	5	N	N	run/o&m/run
05/27/14	247162	62	3210	127	253	376	14	651	21177	107495	4.5	N	N	run/o&m/run
06/05/14	24930	60	2930	139	227	441	17	650	21555	107528	4.75	N	Y	run/o&m,ted,wells/run
06/12/14	251002	60	2790	141	215	291	0	670	21856	107557	0	N	N	run/o&m/run
06/16/14	25195	58	2873	142	221	185	0	648	22026	107572	4	N	N	run/o&m/run
06/26/14	25431	60	2780	141	214	217	0	676	22449	107612	0	N	N	run/o&m/run
07/03/14	25591	60	2765	140	214	407	14	682	22743	107637	0	N	N	run/o&m/run
07/07/14	25647	59	2850	139	221	182	0	644	22850	107646	4.74	N	Y	down/o&m,ted/run
07/14/14	25819	60	2910	142	224	268	21	663	23154	107678	4.25	N	N	run/o&m/down
07/23/14	25871	60	2935	145	225	310	17	655	23242	107704	4.5	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
07/29/14	26014	60	3055	135	238	156	0	640	23492	107743	0	N	N	run/o&m/run
08/06/14	26208	61	2930	143	225	329	0	660	23841	107797	5	N	Y	run/o&m,ted/run
08/14/14	26398	55	2880	132	225	1000	0	657	24187	107850	0	N	N	run/o&m/run
08/19/14	26520	52	2860	137	222	1000	0	668	24408	107885	0	N	N	run/o&m/run
08/25/14	26663	59	2930	134	229	371	0	684	24667	107925	0	N	N	run/o&m/run
09/02/14	26814	52	2910	135	227	168	0.5	680	24935	107977	0	N	N	run/o&m/run
09/10/14	26985	55	3010	134	235	283	4	673	25233	108032	0	N	Y	run/o&m,ted/run
09/16/14	27068	54	3045	135	237	223	0	668	25379	108061	0	N	N	run/o&m/run
09/22/14	27211	54	3002	128	237	272	0	671	25628	108099	0	N	N	run/o&m/down
10/02/14	27427	54	3015	129	237	443	5	701	26007	108162	4.5	N	Y	run/o&m,ted/run
10/08/14	27570	57	2950	119	236	305	0.4	692	26262	108204	5.5	N	N	run/o&m/run
10/17/14	27786	56	2995	126	237	412	2.9	697	26651	108268	0	N	N	run/o&m/run
10/20/14	27858	55	2931	129	231	321	2.1	691	26780	108289	0	N	N	run/o&m/run
10/31/14	28113	55	3000	127	237	299	0.9	705	27245	108361	0	N	N	run/o&m/run
11/07/14	28281	57	2965	126	234	382	0.4	698	27556	108404	0	N	N	run/o&m/run
11/12/14	28401	55	3290	118	264	413	0.1	659	27772	108437	5	N	Y	run/o&m,ted/run
11/17/14	28427	45	2900	102	239	340	2.1	668	27817	108446	0	N	N	down/o&m/run
11/24/14	28594	60	3765	104	309	357	3.1	664	28170	108492	0	N	N	run/o&m/run
12/03/14	28785	58	3465	115	279	345	1.2	682	28559	108546	0	N	N	run/o&m/run
12/08/14	28905	57	3702	111	300	413	0.2	668	28808	108613	0	N	N	run/o&m/run
12/15/14	29068	60	3010	120	240	211	1.8	631	29157	108613	3.5	N	Y	run/o&m,ted,wells/down
12/24/14	29258	60	3951	99	327	291	9	664	29570	108669	0	N	N	run/o&m/run
12/29/14	29377	45	4130	89	348	314	12	690	29863	108704	0	N	N	run/o&m/run
01/07/15	29593	57	3630	108	296	528	4	677	30386	108767	0	N	N	run/o&m/run
01/14/15	29758	50	3190	101	263	259	7	647	30747	108821	0	N	Y	run/o&m,ted,wells/down
01/20/15	29879	60	3365	98	279	283	16	645	31001	108857	0	N	N	run/o&m/run
01/30/15	30066	55	3560	106	291	323	0.3	653	31397	108912	0	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
02/06/15	30236	52	3650	113	295	264	1.9	660	31789	108962	0	N	Y	run/o&m,ted,wells/down
02/12/15	30378	54	3585	106	293	316	0	669	32047	109003	0	N	N	run/o&m/run
02/17/15	30423	56	3527	110	287	321	8.6	642	32137	109017	3.75	N	Y	run/o&m,ted,wells/down
02/26/15	30616	55	3568	109	290	243	4.8	637	32528	109073	0	N	N	run/o&m/run
03/04/15	30760	55	3605	104	296	226	5.9	632	32818	109114	0	N	N	run/o&m/run
03/11/15	30928	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 8"
03/20/15	30929	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 9"
03/24/15	31018	30	2550	104	209	355	3.2	645	33372	109187	0	N	Y	run/o&m,ted/run
04/01/15	31212	55	3400	127	268	261	2.5	662	33969	109232	0	N	N	run/o&m/run
04/06/15	31331	58	3445	125	273	200	4.1	665	33739	109265	0	N	N	run/o&m/run
04/13/15	31499	62	3467	122	276	189	2.1	669	34329	109313	0	N	N	run/o&m/run
04/21/15	31663	59	3410	109	278	355	5.8	667	34696	109360	4.25	N	N	run/o&m/run
04/27/15	31686	57	3460	113	280	873	8.2	635	34747	109370	0	N	Y	run/o&m,ted/run
05/04/15	31771	NT	NT	NT	NT	NT	NT	NT	NT	109396	0	N	N	down/o&m/run
05/05/15	31772	NT	NT	NT	NT	NT	NT	NT	34918	109396	0	N	N	down/o&m/run
05/11/15	31893	65	3560	123	283	410	3.4	660	35179	109404	0	N	N	run/o&m/run
05/18/15	332081	60	3460	127	273	262	1.5	664	35579	109480	0	N	N	run/o&m/run
05/26/15	32228	50	3380	130	265	500	1.2	663	NT	109517	0	N	Y	run/o&m,ted/run
06/01/15	32373	50	3360	143	258	740	0.7	664	NT	109556	0	N	N	run/o&m/run
06/08/15	32540	60	3485	128	275	280	0.5	663	36556	109599	0	N	N	run/o&m/run
06/16/15	32731	64	4500	125	356	187	1.1	665	36760	109656	10	N	N	run/o&m/down
06/24/15	32852	50	4500	127	355	130	0.5	663	NT	109688	0	N	N	run/o&m/run
07/06/15	32998	50	4700	130	369	150	0.4	652	NT	NT	0	N	Y	run/o&m,ted/run

[a] Reading was taken approximately 8-inches from the original location were the first two readings were collected.
[b] Reading was taken from system display screen.
[c] New natural gas meter was installed on August 10, 2012.
Note 1: Multiple system readings were collected with initial air sparge start up and optimize air sparge system.
Note 2: Multiple system readings were collected to optimize air sparge equipment.
Note 3: System was shutdown for City of Tucson sampling event and NAPL fingerprint assessment.
Note 4: Lori Ehman with City of Tucson was on-site and informed Cardno of upcoming well test and asked Cardno to postpone LNAPL until well testing is complete.
Note 5: Bill with the City of Tucson re-started the system with dilution open and Air Sparge system off.
Note 6: Re-started Air Sparge system.
Note 7: The remediation system was shut down due to poor destruction. Inspect the catalytic plate.
Note 8: Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling. OP hours were recorded and no additional readings were collected.
Note 9: After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additoinal readings were collected.
* Pre-compliance sample event, due to sample results from 8/12/13 showing poor destruction "NOT COMPLIANCE SAMPLE".
Highlighted cells indicate vapor sampling events.

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Aug-02	228	228	4,050	592	99	592	99
Solleco 500	Sep-02	324	552	6,500	1,501	250	2,093	349
Solleco 500	Oct-02	360	912	6,100	1,174	196	3,267	545
Solleco 500	Oct-02	344	1,256	4,400	750	125	4,016	670
Solleco 500	Oct-02	145	1,402	8,650	707	118	4,724	788
Solleco 500	Nov-02	339	1,741	4,100	798	133	5,522	921
Solleco 500	Dec-02	664	2,405	1,900	762	127	6,283	1,048
Solleco 500	Jan-03	359	2,764	1,900	489	82	6,772	1,129
Solleco 500	Feb-03	1,104	3,868	2,200	1,395	233	8,167	1,362
Solleco 500	Mar-03	454	4,322	3,650	986	164	9,153	1,526
Solleco 500	Oct-04	264	4,586	337	21,985	3,575	31,138	5,101
Solleco 500	Oct-04	408	4,994	447	784	131	31,922	5,231
Solleco 500	Nov-04	384	5,378	328	979	163	32,901	5,394
Solleco 500	Dec-04	336	5,714	118	629	105	33,530	5,499
Solleco 500	Dec-04	528	6,242	272	355	59	33,885	5,558
Solleco 500	Feb-05	312	6,554	455	484	81	34,369	5,639
Solleco 500	Mar-05	1,536	8,090	557	3,987	665	38,356	6,304
Solleco 500	May-05	840	8,930	220	2,669	445	41,025	6,748
Solleco 500	Jun-05	408	9,338	378	512	85	41,537	6,834
Solleco 500	Jul-05	720	10,058	1,500	1,553	259	43,090	7,093
Solleco 500	Aug-05	768	10,826	1,500	6,572	1,095	49,662	8,188
Solleco 500	Sep-05	744	11,570	1,508	6,367	638	56,029	8,826
Solleco 500	Oct-05	672	12,242	1,612	7,156	1,193	63,185	10,018
Solleco 500	Nov-05	624	12,866	988	4,073	679	67,258	10,697
Solleco 500	Dec-05	528	13,394	1,508	5,260	877	72,518	11,574
Solleco 500	Jan-06	864	14,258	1,196	6,827	1,138	79,345	12,712
Solleco 500	Feb-06	792	15,050	936	4,897	816	84,242	13,528
Solleco 500	Mar-06	720	15,770	1,101	5,237	873	89,479	14,401
Solleco 500	Apr-06	816	16,586	1,300	7,008	1,168	96,487	15,569
Solleco 500	May-06	552	17,138	1,508	5,499	917	101,986	16,485
Solleco 500	Jun-06	840	17,978	624	3,463	577	105,449	17,062
Solleco 500	Jul-06	792	18,770	1,326	6,938	1,156	112,387	18,219
Solleco 500	Aug-06	336	19,106	1,664	3,694	616	116,081	18,834
Solleco 500	Sep-06	984	20,090	2,800	18,528	3,088	134,609	21,922
Solleco 500	Jan-07	2,472	22,562	2,500	46,546	7,758	181,154	29,680
Solleco 500	Jan-07	312	22,874	3,500	5,875	979	187,029	30,659
Solleco 500	Mar-07	2,616	25,490	3,300	49,257	8,210	236,286	38,868
Solleco 500	Aug-07	2,736	28,226	8,500	76,619	12,770	312,905	51,638
Solleco 500	Oct-07	1,032	29,258	11,000	28,900	4,817	341,806	56,455
Solleco 500	Jan-08	2,376	31,634	910	66,538	11,090	408,344	67,545
Solleco 500	Mar-08	1,392	33,026	980	38,982	6,497	447,325	74,042
Solleco 500	Jun-08	864	33,890	610	24,453	4,076	471,778	78,117
Solleco 500	Sep-08	2,112	36,002	500	7,190	1,198	478,968	79,315

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

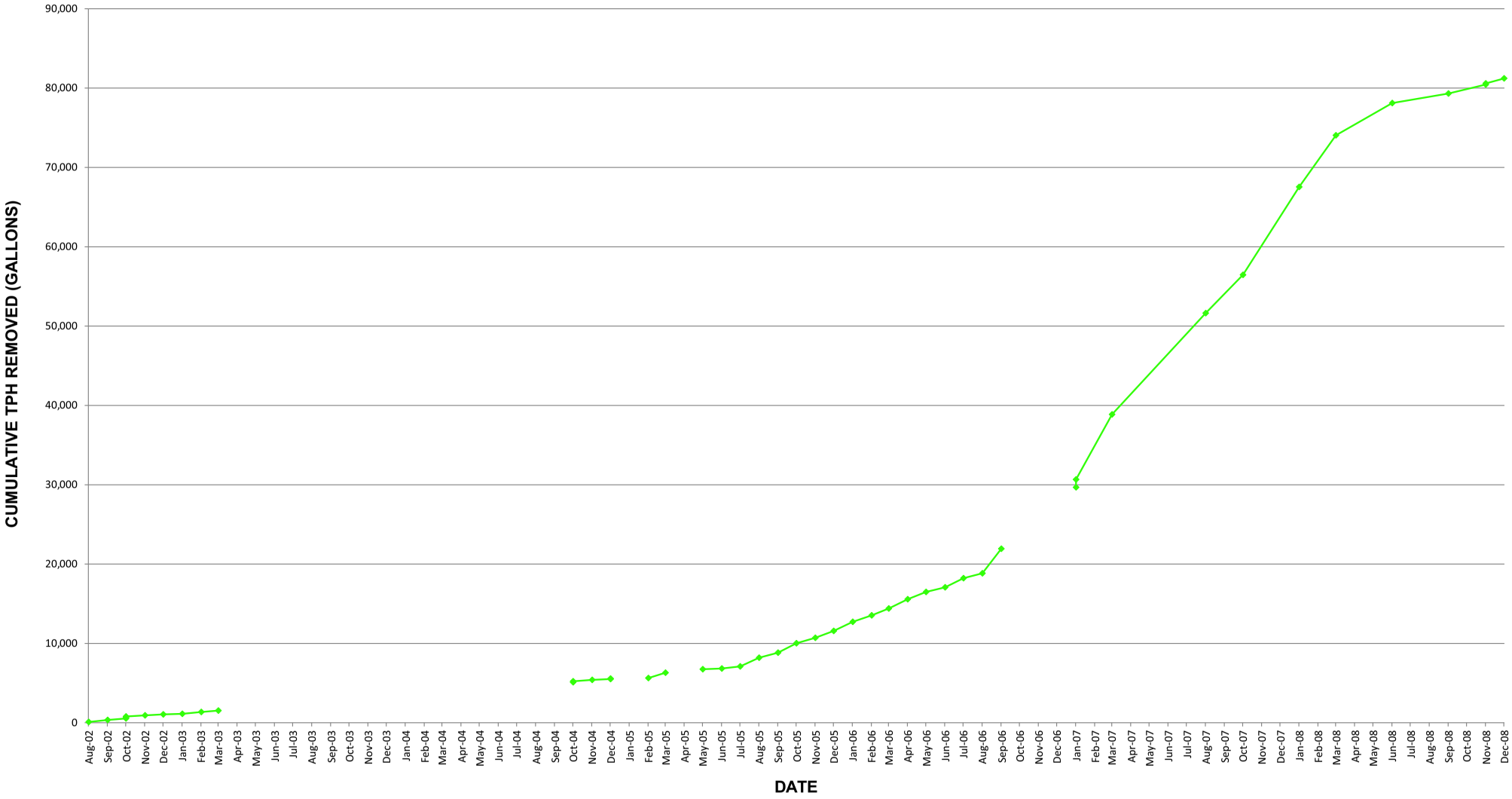
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Nov-08	1,248	37,250	800	6,798	1,133	485,766	80,448
Solleco 500	Nov-08	192	37,442	600	784	131	486,550	80,579
Solleco 500	Dec-08	816	38,258	690	3,833	639	490,383	81,218
Solleco 500	Jan-09	696	38,954	630	2,985	498	493,368	81,715
Solleco 500	Apr-09	2,624	41,578	320	5,716	953	499,084	82,668
Solleco 500	Aug-09	1,068	42,646	510	2,950	492	502,035	83,160
Solleco 500	Nov-09	2,232	44,878	560	6,166	1,028	508,201	84,187
Solleco 500	Mar-10	2,448	47,326	470	6,763	1,127	514,963	85,315
Solleco 500	Aug-10	2,712	50,038	330	7,492	1,249	522,455	86,563
Solleco 500	Nov-10	1,776	51,814	170	7,119	1,186	529,574	87,750
Solleco 500	Mar-11	2,784	54,598	207	11,159	1,860	540,733	89,610
Solleco 500	Jul-11	2,592	57,190	498	10,390	1,732	551,123	91,341
Solleco 500	Sep-11	1,680	58,870	1,160	6,734	1,122	557,857	92,464
Solleco 500	Dec-11	1,094	59,964	901	4,387	731	562,244	93,195
Solleco 500	Apr-12	96	60,060	252	77	13	562,320	93,208
Solleco 500	Apr-12	143	60,203	306	143	24	562,463	93,231
Solleco 500	May-12	524	60,727	164	262	44	562,725	93,275
Solleco 500	May-12	170	60,897	395	323	54	563,048	93,329
Solleco 500	May-12	45	60,942	251	63	11	563,111	93,339
Solleco 500	May-12	79	61,021	263	119	20	563,230	93,359
Solleco 500	May-12	192	61,213	263	288	48	563,518	93,407
Solleco 500	May-12	141	61,354	435	437	73	563,955	93,480
Solleco 500	Jun-12	144	61,498	236	173	29	564,128	93,509
Solleco 500	Jun-12	288	61,786	307	634	106	564,761	93,615
Solleco 500	Jun-12	189	61,975	347	473	79	565,234	93,693
Solleco 500	Aug-12	3,321	63,285	630	15,611	2,602	580,845	96,295
Solleco 500	Sep-12	213	63,498	810	1,263	211	582,108	96,506
Solleco 500	Sep-12	94	63,592	880	602	100	582,710	96,606
Solleco 500	Sep-12	145	63,737	900	945	158	583,655	96,764
Solleco 500	Oct-12	166	63,903	1,100	1,331	222	584,986	96,985
Solleco 500	Oct-12	166	64,069	320	393	66	585,379	97,051
Solleco 500	Oct-12	237	64,306	1,100	1,941	324	587,320	97,374
Solleco 500	Oct-12	67	64,373	730	368	61	587,688	97,436
Solleco 500	Nov-12	360	64,733	460	1,339	223	589,027	97,659
Solleco 500	Nov-12	474	65,207	440	1,281	214	590,308	97,872
Solleco 500	Dec-12	335	65,542	590	1,241	207	591,549	98,079
Solleco 500	Jan-13	476	66,018	760	1,383	231	592,932	98,310
Solleco 500	Jan-13	452	66,470	460	1,290	215	594,222	98,525
Solleco 500	Feb-13	405	66,875	370	853	142	595,075	98,667
Solleco 500	Apr-13	818	67,693	900	4,864	811	599,939	99,478
Solleco 500	Jul-13	1,248	68,941	767	4,553	759	604,492	100,236
Solleco 500	Aug-13	578	69,519	579	1,659	277	606,151	100,513
Solleco 500	Nov-13	884	70,403	891	3,783	631	609,934	101,143

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

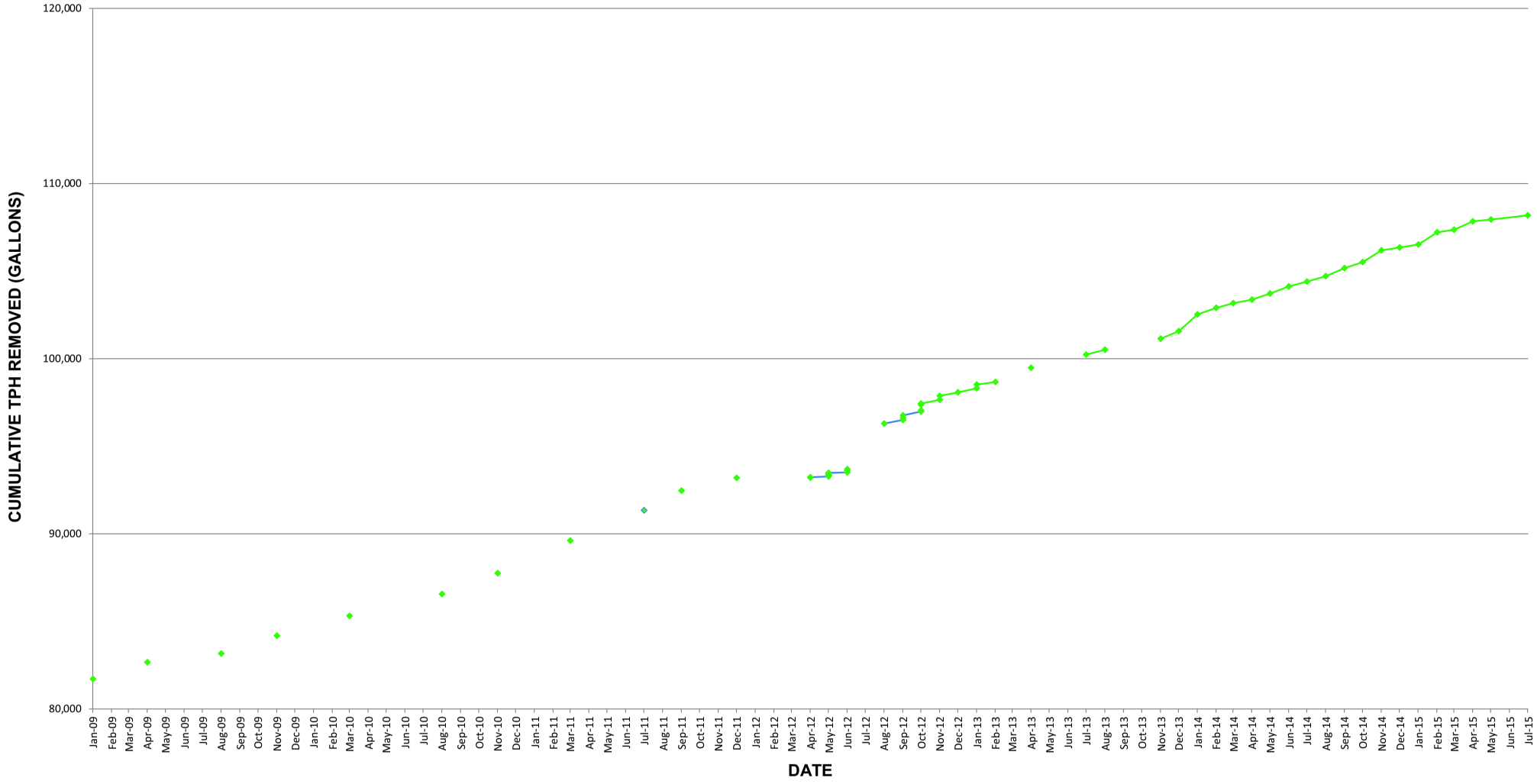
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Dec-13	817	71,220	619	2,547	425	612,481	101,568
Solleco 500	Jan-14	950	72,170	1,210	5,789	965	618,270	102,533
Solleco 500	Feb-14	626	72,796	765	2,203	367	620,473	102,900
Solleco 500	Mar-14	342	73,138	1,350	1,629	272	622,102	103,171
Solleco 500	Apr-14	429	73,567	705	1,189	198	623,291	103,370
Solleco 500	May-14	722	74,289	753	2,087	348	625,378	103,717
Solleco 500	Jun-14	454	74,743	1,540	2,467	411	627,845	104,129
Solleco 500	Jul-14	717	75,460	658	1,621	270	629,466	104,399
Solleco 500	Aug-14	561	76,021	958	1,880	313	631,346	104,712
Solleco 500	Sep-14	777	76,798	965	2,739	457	634,085	105,169
Solleco 500	Oct-14	442	77,240	1,260	2,052	342	636,137	105,511
Solleco 500	Nov-14	974	78,214	1,010	4,037	673	640,174	106,183
Solleco 500	Dec-14	667	78,881	398	990	165	641,164	106,348
Solleco 500	Jan-15	690	79,571	358	1,010	168	642,174	106,516
Solleco 500	Feb-15	665	80,236	1,410	4,183	697	646,357	107,213
Solleco 500	Mar-15	595	80,831	463	895	149	647,252	107,362
Solleco 500	Apr-15	668	81,499	979	2,846	474	650,098	107,836
Solleco 500	May-15	542	82,041	298	665	111	650,763	107,947
Solleco 500	Jul-15	770	82,811	319	1,409	235	652,172	108,182

(1) = Soil vapor extraction (SVE) well
(2) = Air infiltration/injection well
(3) = Nested vadose zone monitoring probe
(4) = System was shutdown November 1995 and was replaced with a 500-scfm
(5) = System was started on February 13, 1996
(6) = System was shutdown January 2001 and was replaced with a Paragon ET-150
(7) = System was shutdown September 4, 2002 and was restarted on November 4, 2002
(8) = System was shutdown December 31, 2002 for rebound recovery evaluation

Remediation information reported by Hydro Geo Chem
Remediation information reported by Groundwater Technology
Remediation information reported by Fluor Daniel GTI
Remediation information reported by The IT Group
Remediation information reported by SCS Engineers
Remediation information reported by Clear Creek Associates
Remediation information reported by City of Tucson
Average influent concentration
Remediation information reported by Cardno
Mass removal estimated using PID measurements



TFS-10 HISTORICAL TPH MASS REMOVAL
(2002 THROUGH 2008)



TFS-10 HISTORICAL TPH MASS REMOVAL
(2009 THROUGH 2015)

Cardno
Shaping the Future

Cardno

9977 North 90th Street,
Suite 150
Scottsdale, AZ 85258
USA

Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

November 4, 2015
I052000014.Q315TFS10

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Subject: **TFS-10 System Performance Summary**
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from July through September 2015. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

Third Quarter Field Activities

- Weekly system readings and equipment maintenance.
- Monthly well gauging, vapor monitoring, and non-aqueous phase liquid (NAPL) bailing.
- The remediation system has seven zones (1 through 7) which represent remediation wells on the same trunk lines; currently there are 23 wells connected to the seven remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remedial zones 1 through 4 were not operating; all of the remediation wells, excluding, well PCM-535A (zone 7) were operating in zones 5 through 7.
- Adjusted the bypass stingers to optimize the flow rate and vapor recovery in wells PCM-534A and PCM-507A (zone 7).
- On July 6, 2015, a confirmation vapor sample was collected to assess the destruction efficiency of the AS/SVE system for June 2015. The July 6th sampling event was reported in the second quarter system performance summary.
- Removed an estimated 4,166 pounds (approximately 694 gallons) of petroleum hydrocarbons through the AS/SVE system.

- Manually bailed approximately 0.75 gallons of NAPL from monitor well PCM-516 and 11.25 gallons of NAPL from monitor well WR-220A. During the reporting period a cumulative 12.0 gallons (72 pounds) of NAPL was removed.
- An estimated 15,434 pounds (approximately 2,572 gallons) of petroleum hydrocarbons were removed through the AS/SVE remediation and NAPL removal activities during the reporting year of 2015.
- During the reporting period an estimated 4,238 pounds (approximately 706 gallons) of petroleum hydrocarbons were removed from the Site through AS/SVE remediation and NAPL removal activities. Since April 1, 2012 an estimated 104,851 pounds (approximately 17,475 gallons) of petroleum hydrocarbons have been removed from the Site through AS/SVE remediation and NAPL removal activities.

PROPOSED FOURTH QUARTER 2015 SITE ACTIVITIES

- Continue weekly system readings, monthly well gauging, vapor monitoring, and NAPL bailing.
- Continue adjusting system to optimize vapor recovery.
- Continue adjusting bypass stingers to optimize flow rate and vapor recovery in wells PCM-534A and PCM-507A.

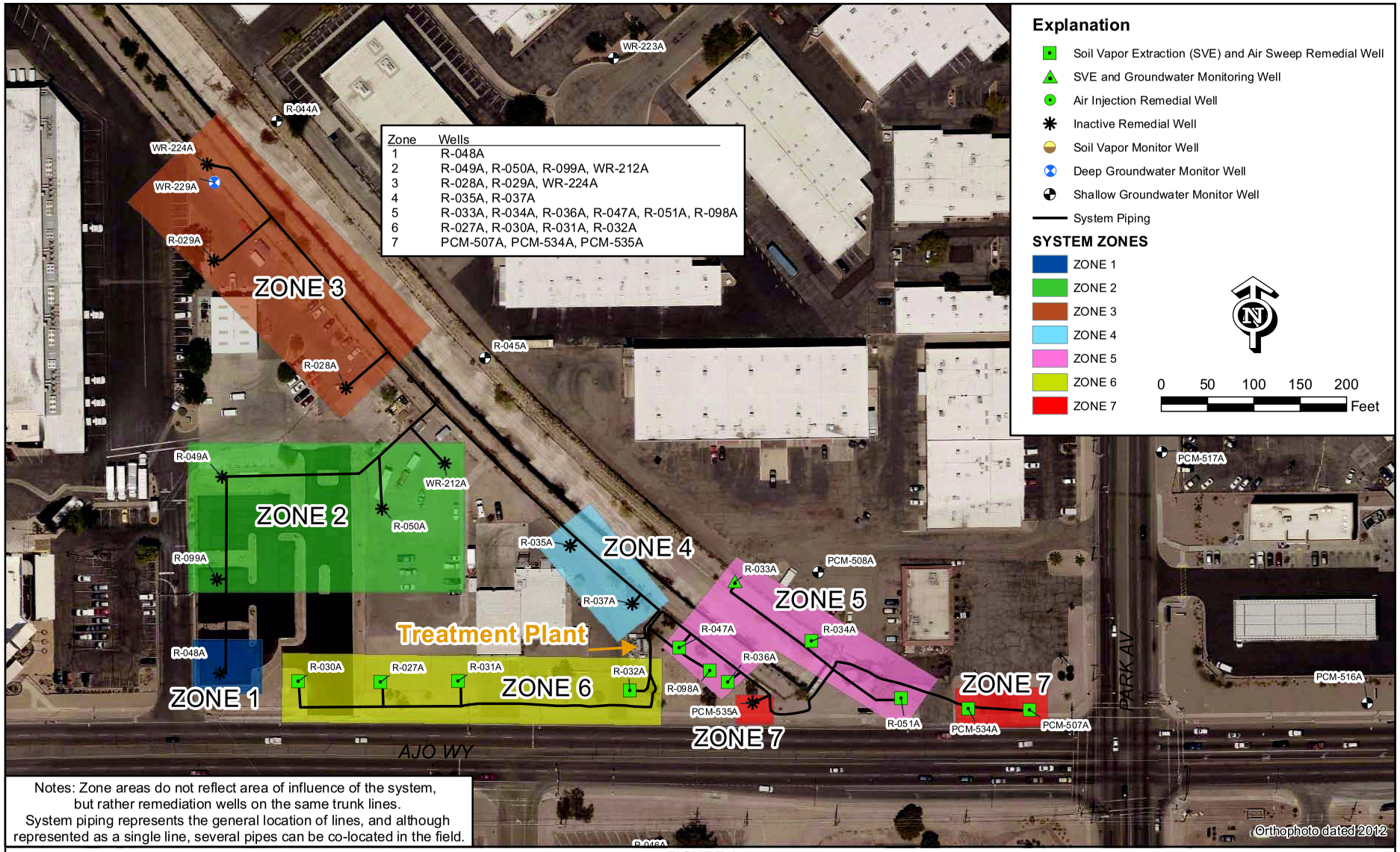
Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,

Justin T. Patton
Project Manager
for Cardno
Direct Line 602 909 3448
Email: justin.patton@cardno.com

Enclosures:

Figure 1	TFS-10 Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Influent Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Table 6	Manually Bailed NAPL Removal
Table 7	Annual NAPL Removal
Appendix A	Weekly Operation and Maintenance System Readings
Appendix B	Historical TPH mass removal table and graphs



Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines. System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

CITY OF TUCSON
ENVIRONMENTAL SERVICES

FIGURE 1
TFS-10 SITE LAYOUT AND WELL LOCATION MAP
THOMAS O. PRICE SERVICE CENTER
4004 South Park Avenue
Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

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TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Op Hours	Vacuum (Inches H_2O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
08/27/12	13,472	67	318	480	167
09/05/12	13,685	50	577	471	159
09/18/12	13,779	55	425	468	155
09/24/12	13,924	52	612	466	156
10/01/12	14,090	55	747	469	154
10/08/12	14,256	57	251	476	153
10/18/12	14,493	61	655	479	151
10/22/12	14,560	64	596	484	145
11/06/12	14,920	70	338	520	146
11/27/12	15,394	63	219	395	139
12/11/12	15,729	63	439	404	132
01/02/13	16,205	66	822	246	125
01/21/13	16,657	64	381	399	132
02/07/13	17,062	64	285	366	135
04/30/13	17,880	48	737	425	146
07/15/13	19,128	60	367	306	179
08/12/13	19,706	63	287	319	172
11/07/13	20,590	48	508	309	148
12/12/13	21,407	51	422	324	145
01/14/14	22,357	45	743	324	150
02/19/14	22,983	68	351	296	115
03/27/14	23,325	54	722	227	115
04/14/14	23,754	61	372	253	122
05/15/14	24,476	60	143	247	125
06/05/14	24,930	60	441	227	139
07/07/14	25,647	59	182	221	139
08/06/14	26,208	61	329	225	143
09/10/14	26,985	55	283	235	134
10/02/14	27,427	54	443	237	129
11/12/14	28,401	55	413	264	118
12/15/14	29,068	60	211	240	120
01/14/15	29,758	50	259	263	101
02/17/15	30,423	56	321	287	110
03/24/15	31,018	30	355	209	104
04/27/15	31,686	57	873	280	113
05/26/15	32,228	50	500	265	130
07/06/15	32,998	50	150	369	130
07/28/15	33,484	65	108	391	133

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Op Hours	Vacuum (Inches H_2O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
09/03/15	33,983	30	1322	310	123
09/28/15	34,558	50	73	426	127
Average		**56**	**440**	**340**	**136**

Notes:

VOC = Volatile organic compounds concentrations reported from PID.

ppmv = Parts per million by volume.

scfm = Standard cubic feet per minute.

Deg. F = Degree Fahrenheit.

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
08/27/12	12:50	9.9	9.9	2.0	8.2	630
09/05/12	9:36	14	17	3.2	12	810
09/18/12	10:55	8.5	12	3.2	16	880
09/24/12	1:00	19	15	2.0	8.5	900
10/01/12	11:10	23	20	2.5	15	1,100
10/08/12	10:30	4.4	3.7	<5.0	4.4	320
10/18/12	11:15	22	18	2.0	12	1,100
10/22/12	11:20	14	13	1.8	7.6	730
11/06/12	11:15	8.1	8.0	<5.0	3.9	460
11/27/12	12:50	5.6	2.9	0.99	7.4	440
12/11/12	12:50	10	8.8	1.3	6.9	590
01/02/13	10:50	18	20	2.8	12	760
01/21/13	11:50	8.5	7.7	1.7	7.8	460
02/07/13	11:35	4.7	3.7	1.2	6.9	370
04/30/13	11:28	17	14	1.7	8.0	900
07/15/13	9:15	3.89	9.42	<2.30	17.2	767
08/12/13	8:40	2.48	5.03	<1.15	13.4	579
11/07/13	10:20	7.43	18.2	2.96	16.7	891
12/12/13	10:25	4.20	12.5	2.11	14.2	619
01/14/14	8:48	8.48	25.0	4.27	25.9	1,210
02/19/14	11:23	4.62	15.5	3.13	16.8	765
03/27/14	11:07	7.73	23.2	3.63	30.1	1,350
04/14/14	9:50	3.48	8.20	1.83	21.1	705
05/15/14	8:50	2.2	4.50	<1.15	9.76	753
06/05/14	9:50	12.0	23.3	3.00	27.0	1,540
07/07/14	9:55	3.37	5.50	<1.15	8.69	658
08/06/14	9:30	5.61	10.6	1.95	16.9	958
09/10/14	11:25	8.36	26.6	4.86	21.0	965
10/02/14	10:23	7.88	21.9	3.13	27.2	1,260
11/12/14	10:43	5.82	19.2	4.40	28.5	1,010
12/15/14	8:20	1.13	3.32	0.40	4.34	398
01/14/15	10:25	2.69	10.5	2.14	9.3	358
02/16/15	10:10	19.6	37.6	4.78	23.8	1,410
03/24/15	10:00	2.6	11.0	2.53	11.8	463
04/27/15	11:00	11.9	25.7	4.18	20.7	979
05/26/15	12:45	1.22	2.64	0.54	4.40	298
07/06/15	1:00	2.65	5.05	0.62	3.82	319

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
07/28/15	11:00	0.61	1.08	0.23	3.02	162
09/03/15	12:00	16.4	62.0	10.9	47.5	1,280
09/28/15	11:15	0.54	1.21	0.24	2.65	160
Average		**8.13**	**12.8**	**2.39**	**13.2**	**758**

Notes:

ppmv = Part per million by volume.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
< = Below laboratory reporting limits.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
08/27/12	480	630	9.9	9.9	2.0	8.2	4.70	112.81	5.8E-02	1.4E+00	6.7E-02	1.6E+00	1.6E-02	3.8E-01	6.5E-02	1.6E+00
09/05/12	471	810	14	17	3.2	12	5.93	142.33	8.0E-02	1.9E+00	1.1E-01	2.7E+00	2.5E-02	6.0E-01	9.3E-02	2.2E+00
09/18/12	468	880	8.5	12	3.2	16	6.40	153.64	4.8E-02	1.2E+00	7.9E-02	1.9E+00	2.5E-02	5.9E-01	1.2E-01	3.0E+00
09/24/12	466	900	19	15	2.0	8.5	6.52	156.46	1.1E-01	2.6E+00	9.9E-02	2.4E+00	1.5E-02	3.7E-01	6.5E-02	1.6E+00
10/01/12	469	1,100	23	20	2.5	15	8.02	192.46	1.3E-01	3.1E+00	1.3E-01	3.2E+00	1.9E-02	4.6E-01	1.2E-01	2.8E+00
10/08/12	476	320	4.4	3.7	<5.0	4.4	2.37	56.82	2.5E-02	6.1E-01	2.5E-02	6.0E-01	3.9E-02	9.4E-01	3.5E-02	8.3E-01
10/18/12	479	1,100	22	18	2.0	12	8.19	196.57	1.3E-01	3.1E+00	1.2E-01	2.9E+00	1.6E-02	3.8E-01	9.5E-02	2.3E+00
10/22/12	484	730	14	13	1.8	7.6	5.49	131.81	8.2E-02	2.0E+00	8.9E-02	2.1E+00	1.4E-02	3.4E-01	6.1E-02	1.5E+00
11/06/12	520	460	8.1	8	<5.0	3.9	3.72	89.24	5.1E-02	1.2E+00	5.9E-02	1.4E+00	4.3E-02	1.0E+00	3.3E-02	8.0E-01
11/27/12	395	440	5.6	2.9	1.0	7.4	2.70	64.84	2.7E-02	6.4E-01	1.6E-02	3.9E-01	6.4E-03	1.5E-01	4.8E-02	1.2E+00
12/11/12	404	590	10	8.8	1.3	6.9	3.71	88.92	4.9E-02	1.2E+00	5.0E-02	1.2E+00	8.7E-03	2.1E-01	4.6E-02	1.1E+00
01/02/13	246	760	18	20	2.8	12	2.91	69.75	5.4E-02	1.3E+00	7.0E-02	1.7E+00	1.1E-02	2.7E-01	4.9E-02	1.2E+00
01/21/13	399	460	8.5	7.7	1.7	7.8	2.85	68.47	4.1E-02	9.9E-01	4.3E-02	1.0E+00	1.1E-02	2.7E-01	5.1E-02	1.2E+00
02/07/13	366	370	4.7	3.7	1.2	6.9	2.11	50.52	2.1E-02	5.0E-01	1.9E-02	4.6E-01	7.2E-03	1.7E-01	4.2E-02	1.0E+00
04/30/13	425	900	17	14	1.7	8.0	5.95	142.70	8.8E-02	2.1E+00	8.4E-02	2.0E+00	1.2E-02	2.9E-01	5.6E-02	1.3E+00
07/15/13	306	767	3.89	9.42	<2.30	17.2	3.65	87.56	1.4E-02	3.5E-01	4.1E-02	9.8E-01	1.2E-02	2.8E-01	8.7E-02	2.1E+00
08/12/13	319	579	2.48	5.03	<1.15	13.4	2.87	68.91	9.6E-03	2.3E-01	2.3E-02	5.4E-01	6.0E-03	1.5E-01	7.0E-02	1.7E+00
11/07/13	309	891	7.43	18.2	2.96	16.7	4.28	102.71	2.8E-02	6.7E-01	8.0E-02	1.9E+00	1.5E-02	3.6E-01	8.5E-02	2.0E+00
12/12/13	324	619	4.20	12.5	2.11	14.2	3.12	74.82	1.6E-02	4.0E-01	5.7E-02	1.4E+00	1.1E-02	2.7E-01	7.6E-02	1.8E+00
01/14/14	324	1,210	8.48	25.0	4.27	25.9	6.09	146.26	3.3E-02	8.0E-01	1.1E-01	2.7E+00	2.3E-02	5.5E-01	1.4E-01	3.3E+00
02/19/14	296	765	4.62	15.5	3.13	16.8	3.52	84.48	1.7E-02	4.0E-01	6.5E-02	1.6E+00	1.5E-02	3.7E-01	8.2E-02	2.0E+00
03/27/14	227	1,350	7.73	23.2	3.63	30.1	4.76	114.33	2.1E-02	5.1E-01	7.4E-02	1.8E+00	1.4E-02	3.3E-01	1.1E-01	2.7E+00
04/14/14	253	705	3.48	8.20	1.83	21.1	2.77	66.54	1.1E-02	2.6E-01	2.9E-02	7.0E-01	7.6E-03	1.8E-01	8.8E-02	2.1E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
05/15/14	247	753	2.23	4.50	1.15	9.76	2.89	69.39	6.7E-03	1.6E-01	1.6E-02	3.8E-01	4.7E-03	1.1E-01	4.0E-02	9.5E-01
06/05/14	227	1,540	12.0	23.3	3.00	27	5.43	130.42	3.3E-02	7.9E-01	7.5E-02	1.8E+00	1.1E-02	2.7E-01	1.0E-01	2.4E+00
07/07/14	221	658	3.37	5.50	1.15	8.69	2.26	54.25	9.0E-03	2.2E-01	1.7E-02	4.1E-01	4.2E-03	1.0E-01	3.2E-02	7.6E-01
08/06/14	225	958	5.61	10.6	1.95	16.9	3.35	80.41	1.5E-02	3.7E-01	3.4E-02	8.1E-01	7.2E-03	1.7E-01	6.3E-02	1.5E+00
09/10/14	235	965	8.36	26.6	4.86	21	3.53	84.60	2.4E-02	5.7E-01	8.8E-02	2.1E+00	1.9E-02	4.5E-01	8.1E-02	2.0E+00
10/02/14	237	1,260	7.88	21.9	3.13	27.2	4.64	111.40	2.3E-02	5.4E-01	7.3E-02	1.8E+00	1.2E-02	2.9E-01	1.1E-01	2.5E+00
11/12/14	264	1,010	5.82	19.2	4.40	28.5	4.14	99.47	1.9E-02	4.5E-01	7.2E-02	1.7E+00	1.9E-02	4.6E-01	1.2E-01	3.0E+00
12/15/14	240	398	1.13	3.32	0.40	4.34	1.48	35.63	3.3E-03	7.9E-02	1.1E-02	2.7E-01	1.6E-03	3.8E-02	1.7E-02	4.1E-01
01/14/15	263	358	2.69	10.5	2.14	9.27	1.46	35.13	8.6E-03	2.1E-01	3.9E-02	9.4E-01	9.3E-03	2.2E-01	4.0E-02	9.6E-01
02/16/15	287	1,410	19.6	37.6	4.78	23.8	6.29	150.97	6.8E-02	1.6E+00	1.5E-01	3.7E+00	2.3E-02	5.4E-01	1.1E-01	2.7E+00
03/24/15	209	463	2.60	11.0	2.53	11.8	1.50	36.10	6.6E-03	1.6E-01	3.3E-02	7.8E-01	8.7E-03	2.1E-01	4.1E-02	9.8E-01
04/27/15	280	979	11.9	25.7	4.18	20.7	4.26	102.26	4.0E-02	9.7E-01	1.0E-01	2.4E+00	1.9E-02	4.6E-01	9.6E-02	2.3E+00
05/26/15	265	298	1.22	2.64	0.54	4.4	1.23	29.46	3.9E-03	9.4E-02	9.9E-03	2.4E-01	2.4E-03	5.7E-02	1.9E-02	4.6E-01
07/06/15	369	319	2.65	5.05	0.62	3.82	1.83	43.91	1.2E-02	2.8E-01	2.6E-02	6.3E-01	3.8E-03	9.0E-02	2.3E-02	5.6E-01
07/28/15	391	162	0.61	1.08	0.23	3.02	0.98	23.63	2.9E-03	6.9E-02	6.0E-03	1.4E-01	1.5E-03	3.6E-02	1.9E-02	4.7E-01
09/03/15	310	1,280	16.4	62.0	10.9	47.5	6.17	148.03	6.2E-02	1.5E+00	2.7E-01	6.5E+00	5.6E-02	1.3E+00	2.4E-01	5.8E+00
09/28/15	426	160	0.54	1.21	0.24	2.65	1.06	25.43	2.8E-03	6.7E-02	7.3E-03	1.7E-01	1.7E-03	4.0E-02	1.9E-02	4.5E-01
AVERAGE	**340**	**758**	**8.13**	**12.8**	**2.39**	**13.2**	**3.88**	**93.09**	**3.7E-02**	**8.9E-01**	**6.5E-02**	**1.6E+00**	**1.4E-02**	**3.5E-01**	**7.2E-02**	**1.7E+00**

Notes:

TPH	=	Total petroleum hydrocarbons analyzed using EPA Method 8015.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
Lbs	=	Pounds.
scfm	=	Standard cubic feet per minute.
ppmv	=	Parts per million by volume.
<	=	Below minimum laboaratory reporting limits.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
08/27/12	3,321	**15,611**	**191.34**	**223.23**	**52.53**	**215.4**
09/05/12	213	**1,263**	**17.03**	**24.12**	**5.29**	**19.8**
09/18/12	94	**602**	**4.53**	**7.47**	**2.32**	**11.6**
09/24/12	145	**945**	**15.57**	**14.34**	**2.23**	**9.5**
10/01/12	166	**1,331**	**21.71**	**22.03**	**3.21**	**19.2**
10/08/12	166	**393**	**4.22**	**4.14**	**6.51**	**5.7**
10/18/12	237	**1,941**	**30.28**	**28.90**	**3.74**	**22.4**
10/22/12	67	**368**	**5.50**	**5.96**	**0.96**	**4.1**
11/06/12	360	**1,339**	**18.38**	**21.18**	**15.42**	**12.0**
11/27/12	474	**1,281**	**12.71**	**7.68**	**3.05**	**22.8**
12/11/12	335	**1,241**	**16.41**	**16.85**	**2.90**	**15.4**
01/02/13	476	**1,383**	**25.56**	**33.13**	**5.40**	**23.2**
01/21/13	452	**1,290**	**18.59**	**19.64**	**5.05**	**23.2**
02/07/13	405	**853**	**8.45**	**7.76**	**2.93**	**16.9**
04/30/13	818	**4,864**	**71.66**	**68.85**	**9.74**	**45.8**
07/15/13	1,248	**4,553**	**18.01**	**50.89**	**14.47**	**108.2**
08/12/13	578	**1,659**	**5.54**	**13.12**	**3.49**	**40.7**
11/07/13	884	**3,783**	**24.61**	**70.32**	**13.32**	**75.2**
12/12/13	817	**2,547**	**13.48**	**46.80**	**9.20**	**61.9**
01/14/14	950	**5,789**	**31.65**	**108.85**	**21.66**	**131.4**
02/19/14	626	**2,203**	**10.38**	**40.63**	**9.56**	**51.3**
03/27/14	342	**1,629**	**7.28**	**25.48**	**4.64**	**38.5**
04/14/14	429	**1,189**	**4.58**	**12.59**	**3.27**	**37.7**
05/15/14	722	**2,087**	**4.82**	**11.35**	**3.38**	**28.7**
06/05/14	454	**2,467**	**14.99**	**33.97**	**5.09**	**45.8**
07/07/14	717	**1,621**	**6.47**	**12.33**	**3.00**	**22.7**
08/06/14	561	**1,880**	**8.59**	**18.93**	**4.06**	**35.1**
09/10/14	777	**2,739**	**18.51**	**68.70**	**14.62**	**63.2**
10/02/14	442	**2,052**	**10.01**	**32.45**	**5.40**	**46.9**
11/12/14	974	**4,037**	**18.14**	**69.84**	**18.64**	**120.7**
12/15/14	667	**990**	**2.19**	**7.52**	**1.06**	**11.4**
01/14/15	690	**1,010**	**5.92**	**26.95**	**6.40**	**27.7**
02/17/15	665	**4,183**	**45.36**	**101.51**	**15.03**	**74.8**
03/24/15	595	**895**	**3.92**	**19.35**	**5.18**	**24.2**
04/27/15	668	**2,846**	**26.99**	**68.00**	**12.88**	**63.8**
05/26/15	542	**665**	**2.12**	**5.36**	**1.28**	**10.4**
07/06/15	770	**1,409**	**9.13**	**20.30**	**2.90**	**17.9**

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
07/28/15	486	**479**	**1.41**	**2.90**	**0.72**	**9.5**
09/03/15	499	**3,078**	**30.76**	**135.66**	**27.78**	**121.1**
09/28/15	575	**609**	**1.60**	**4.19**	**0.97**	**10.7**
TOTAL	**24,407**	**91,104**	**788.4**	**1,513**	**329.3**	**1,747**

Notes:

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.

lbs = Pounds.

OP Hours = Duration of SVE operation during period.

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs)[a]	Cumulative TPH (Lbs)	TPH (Gallons)[b]	Cumulative TPH (Gallons)[b]	Manually Bailed (Gallons)	Well Pumps (Gallons)[c]	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs)[d]	TPH (Gallons)[d]
04/03/12 - **08/27/12**	3321	15,611	15,611	2,602	2,602	83.50	520.00	603.50	1,277	23,270	3,878
08/27/12 - **09/05/12**	213	1,263	16,874	211	2,812	3.50	30.00	33.50	1,310	24,734	4,122
09/05/12 - **09/18/12**	94	602	17,476	100	2,913	6.25	33.50	39.75	1,350	25,575	4,262
09/18/12 - **09/24/12**	145	945	18,421	158	3,070	4.00	20.00	24.00	1,374	26,664	4,444
09/24/12 - **10/01/12**	166	1,331	19,752	222	3,292	3.50	23.25	26.75	1,401	28,156	4,693
10/01/12 - **10/08/12**	166	393	20,145	66	3,358	3.00	23.25	26.25	1,427	28,706	4,784
10/08/12 - **10/18/12**	237	1,941	22,086	324	3,681	3.00	33.00	36.00	1,463	30,863	5,144
10/18/12 - **10/22/12**	67	368	22,454	61	3,742	3.00	13.28	16.28	1,479	31,329	5,221
10/22/12 - **11/06/12**	360	1,339	23,793	223	3,965	9.25	50.00	59.25	1,538	33,023	5,504
11/06/12 - **11/27/12**	474	1,281	25,073	213	4,179	9.25	62.37	71.62	1,610	34,733	5,789
11/27/12 - **12/11/12**	335	1,241	26,315	207	4,386	9.50	36.52	46.02	1,656	36,251	6,042
12/11/12 - **01/02/13**	476	1,383	27,698	231	4,616	9.50	85.85	95.35	1,751	38,206	6,368
01/02/13 - **01/21/13**	452	1,290	28,987	215	4,831	9.50	72.56	82.06	1,833	39,988	6,665
01/21/13 - **02/07/13**	405	853	29,840	142	4,973	6.50	64.92	71.42	1,905	41,269	6,878
02/07/13 - **04/30/13**	818	4,864	34,704	811	5,784	13.50	191.00	204.50	2,109	47,360	7,893
04/30/13 - **07/15/13**	1248	4,553	39,257	759	6,543	8.25	---	8.25	2,118	51,962	8,660
07/15/13 - **08/12/13**	578	1,659	40,916	277	6,819	5.25	---	5.25	2,123	53,653	8,942
08/12/13 - **11/07/13**	884	3,783	44,699	631	7,450	6.75	---	6.75	2,130	57,477	9,579
11/07/13 - **12/12/13**	817	2,547	47,246	424	7,874	9.75	---	9.75	2,139	60,082	10,014
12/12/13 - **01/14/14**	950	5,789	53,036	965	8,839	14.25	---	14.25	2,154	65,957	10,993
01/14/14 - **02/19/14**	626	2,203	55,239	367	9,206	18.00	---	18.00	2,172	68,269	11,378
02/19/14 - **03/27/14**	342	1,629	56,868	272	9,478	0.00	---	0.00	2,172	69,898	11,650
03/27/14 - **04/14/14**	429	1,189	58,058	198	9,676	9.50	---	9.50	2,181	71,144	11,857
04/14/14 - **05/15/14**	722	2,087	60,145	348	10,024	4.75	---	4.75	2,186	73,260	12,210
05/15/14 - **06/05/14**	454	2,467	62,612	411	10,435	14.25	---	14.25	2,200	75,813	12,635

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs)[a]	Cumulative TPH (Lbs)	TPH (Gallons)[b]	Cumulative TPH (Gallons)[b]	Manually Bailed (Gallons)	Well Pumps (Gallons)[c]	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs)[d]	TPH (Gallons)[d]
06/05/14 - **07/07/14**	717	1,621	64,233	270	10,705	8.75	---	8.75	2,209	77,486	12,914
07/07/14 - **08/06/14**	561	1,880	66,112	313	11,019	8.75	---	8.75	2,218	79,418	13,236
08/06/14 - **09/10/14**	777	2,739	68,851	456	11,475	5.00	---	5.00	2,223	82,187	13,698
09/10/14 - **10/02/14**	442	2,052	70,903	342	11,817	4.50	---	4.50	2,227	84,266	14,044
10/02/14 - **11/12/14**	974	4,037	74,940	673	12,490	5.50	---	5.50	2,233	88,336	14,723
11/12/14 - **12/15/14**	667	990	75,930	165	12,655	15.25	---	15.25	2,248	89,417	14,903
12/15/14 - **01/14/15**	690	1,010	76,940	168	12,823	4.50	---	4.50	2,252	90,454	15,076
01/14/15 - **02/17/15**	665	4,183	81,123	697	13,521	3.75	---	3.75	2,256	94,660	15,777
02/17/15 - **03/24/15**	595	895	82,018	149	13,670	5.00	---	5.00	2,261	95,585	15,931
03/24/15 - **04/27/15**	668	2,846	84,865	474	14,144	4.25	---	4.25	2,265	98,457	16,409
04/27/15 - **05/26/15**	542	665	85,530	111	14,255	3.75	---	3.75	2,269	99,144	16,524
05/26/15 - **07/06/15**	770	1,409	86,939	235	14,490	10.00	---	10.00	2,279	100,613	16,769
07/06/15 - **07/28/15**	486	479	87,417	80	14,570	3.00	---	3.00	2,282	101,110	16,852
07/28/15 - **09/03/15**	499	3,078	90,495	513	15,083	5.00	---	5.00	2,287	104,218	17,370
09/03/15 - **09/28/15**	575	609	91,104	102	15,184	4.00	---	4.00	2,291	104,851	17,475

Notes:

BOLD	=	Sample collection date.
TPH	=	Total petroleum hydrocarbons analyzed using EPA Method 8015.
NAPL	=	Non-aqueous phase liquid.
Lbs	=	Pounds.
---	=	All skimmer pump extraction wells were converted to air-sparge technology.
a	=	TPH lbs are calculated from mass removal from SVE remediaiton system.
b	=	TPH gallons are converted to gallons using 6 lbs = 1 gallon of TPH.
c	=	Well pump totals are calculated by subtracting the total volume of NAPL (combination of manually bailed and pneumatically pumped from well) in the storage vessel minus the manually bailed NAPL and averaged over the NAPL collection period.
d	=	Cumulative TPH lbs and gallons are calculated by adding NAPL removed from wells to mass removal from SVE remediaiton system.

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
04/03/12	R-028A,PCM-516	4.00	4.00
04/17/12	PCM-516	2.25	6.25
05/01/12	PCM-516	4.25	10.50
05/10/12	PCM-516	2.50	13.00
05/17/12	R-32,PCM-516	3.50	16.50
05/25/12	R-017A, 018A, 028A, 035A, 037A, PCM-516, WR-215A	11.3	27.75
05/31/12	PCM-516	3.00	30.75
06/06/12	PCM-516,17,18	7.75	38.50
06/12/12	PCM-516,17,18	3.25	41.75
06/18/12	PCM-516	3.00	44.75
06/28/12	PCM-516,35,37	5.75	50.50
07/05/12	PCM-516, R-099	5.25	55.75
07/10/12	PCM-516	3.00	58.75
07/18/12	PCM-516, R-099	7.50	66.25
07/25/12	PCM-516	3.00	69.25
07/30/12	PCM-516	3.25	72.50
08/10/12	PCM-516	8.00	80.50
08/27/12	PCM-516	3.00	83.50
09/05/12	PCM-516	3.50	87.00
09/14/12	PCM-516	3.00	90.00
09/18/12	PCM-516	3.25	93.25
09/24/12	PCM-516	4.00	97.25
10/01/12	PCM-516	3.50	100.75
10/08/12	PCM-516	3.00	103.75
10/18/12	PCM-516	3.00	106.75
10/22/12	PCM-516	3.00	109.75
11/01/12	PCM-516	3.00	112.75
11/06/12	PCM-516	3.25	116.00
11/13/12	PCM-516	3.25	119.25
11/19/12	PCM-516	3.00	122.25
11/27/12	PCM-516	3.00	125.25
12/04/12	PCM-516	3.00	128.25
12/11/12	PCM-516	3.50	131.75
12/18/12	PCM-516	3.25	135.00
12/27/12	PCM-516	3.00	138.00
01/02/13	PCM-516	3.25	141.25
01/07/13	PCM-516	3.25	144.50
01/14/13	PCM-516	3.25	147.75
01/21/13	PCM-516	3.00	150.75
01/28/13	PCM-516	3.50	154.25
02/07/13	PCM-516	3.00	157.25
02/11/13	PCM-516	3.00	160.25
02/19/13	PCM-516	3.50	163.75
02/25/13	PCM-516	3.50	167.25
03/04/13	PCM-516	3.50	170.75
05/15/13	R-028A, 035A, 037A, 050A, PCM-516	4.00	174.75
06/13/13	PCM-516	2.25	177.00
06/24/13	PCM-516	2.00	179.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
07/31/13	PCM-516	1.75	180.75
08/05/13	PCM-516	2.00	182.75
08/12/13	PCM-516	1.50	184.25
08/19/13	PCM-516	1.00	185.25
09/04/13	PCM-516	1.25	186.50
10/10/13	PCM-516	1.75	188.25
10/21/13	PCM-516	0.75	189.00
10/30/13	PCM-516	1.00	190.00
11/07/13	PCM-516	1.00	191.00
11/11/13	PCM-516	1.00	192.00
11/25/13	PCM-516, WR-220A	5.00	197.00
12/02/13	PCM-516, WR-220A	3.75	200.75
12/18/13	PCM-516, WR-220A	3.25	204.00
01/02/14	PCM-516, WR-220A	4.00	208.00
01/07/14	PCM-516, WR-220A	3.50	211.50
01/14/14	PCM-516, WR-220A	3.50	215.00
01/22/14	PCM-516, WR-220A	3.25	218.25
02/03/14	PCM-516, WR-220A	4.00	222.25
02/10/14	PCM-516, WR-220A	4.00	226.25
02/19/14	PCM-516, WR-220A	3.25	229.50
04/03/14	PCM-516, WR-220A	5.00	234.50
04/07/14	PCM-516, WR-220A	4.50	239.00
04/25/14	PCM-516, WR-220A	4.75	243.75
05/19/14	PCM-516, WR-220A	5.00	248.75
05/27/14	PCM-516, WR-220A	4.50	253.25
06/05/14	PCM-516, WR-220A	4.75	258.00
06/16/14	PCM-516, WR-220A	4.00	262.00
07/07/14	PCM-516, WR-220A	4.75	266.75
07/14/14	PCM-516, WR-220A	4.25	271.00
07/23/14	PCM-516, WR-220A	4.50	275.50
08/06/14	PCM-516, WR-220A	5.00	280.50
10/02/14	PCM-516, WR-220A	4.50	285.00
10/08/14	PCM-516, WR-220A	5.50	290.50
11/25/14	R-031A, R-098, PCM-507, PCM-516, WR-220A	11.75	302.25
12/15/14	PCM-516, WR-220A	3.50	305.75
01/15/15	PCM-516, WR-220A	4.50	310.25
02/17/15	PCM-516, WR-220A	3.75	314.00
03/16/15	PCM-516, WR-220A	5.00	319.00
04/21/15	PCM-516, WR-220A	4.25	323.25
05/19/15	WR-220A	3.75	327.00
06/16/15	WR-220A	10.00	337.00
07/13/15	WR-220A	3.00	340.00
08/25/15	PCM-516, WR-220A	5.00	345.00
09/23/15	PCM-516, WR-220A	4.00	349.00

Notes:

NAPL = Non-aqueous phase liquid.

TABLE 7
ANNUAL NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Time Period	NAPL Removed Bailed/Pumped (Gallons)	Cummulative NAPL Removal (Gallons)
1998	86	86
1999	131	217
2000	45	262
2001	45	307
2002	28	335
2003	956	1,291
2004	1,210	2,501
2005	1,365	3,866
2006	923	4,789
2007	2,315	7,104
2008	2,577	9,681
2009	1,200	10,881
2010	1,703	12,584
2011	1,750	14,334
2012	1,690	16,024
2013	473	16,497
2014	133	16,630
2015	43	16,540

Notes:

NAPL = Non-aqueous phase liquid.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
04/03/12	10151	64	2700	134	211	252	0.7	619	82438	103776	4.00	N	N	run/o&m/run
04/09/12	10294	59	2800	145	215	306	1.3	601	82724	103806	0.00	N	N	run/o&m/run
05/01/12	10818	58	2400	146	184	164	4	624	83794	103918	4.25	N	N	run/o&m/run
05/08/12	10984	58	2400	137	186	246	4	614	84141	103954	0.00	N	N	run/o&m/run "see note 1"
	10985	57	2400	144	184	368	1	691	84143	103955		N	N	
	10988	85	4200[a]	166	311	395	1	696	84148	103955		N	N	
05/10/12	11033	67	4800	153	363	251	2	623	84241	103968	2.50	N	N	run/o&m/run
05/17/12	11109	65	4900	163	365	238	1	627	84388	103988	3.50	N	N	run/o&m/run "see note 2"
	11112	63	5000	169	369	263	4	630	84393	103989		N	N	
05/25/12	11304	63	NT[b]	160	450[b]	246	2	635	84765	104034	11.25	N	N	run/o&m/run
05/31/12	11443	55	NT	146	459	255	3	620	85034	104067	3.00	N	N	run/o&m/run "see note 2"
	11445	54	NT	155	458	435	0	704	85039	104067		N	N	
06/28/12	12066	60	NT	168	472	347	21	688	86299	104213	5.75	N	N	run/o&m/run
07/05/12	12237	77	NT	171	481	635	7	778	86647	104254	5.25	N	N	run/o&m/run
07/25/12	12701	62	NT	159	462	558	11	705	87525	104367	3.00	N	N	run/o&m/run
07/30/12	12820	63	NT	157	465	287	2	658	87754	104397	3.25	N	N	run/o&m/run
08/10/12	13070	59	NT	169	479	221	6	644	0004[c]	104459	8.00	N	N	run/o&m/run
08/14/12	13163	60	NT	171	485	233	13	653	00168	104484	0.00	N	N	run/o&m/run
08/20/12	13305	67	NT	169	483	256	16	654	00431	104521	8.00	N	N	run/o&m/run
08/27/12	13472	67	NT	167	480	318	11	685	00733	104565	3.00	N	Y	run/o&m/run
09/05/12	13683	68	NT	154	463	302	14	655	1119	104622	3.50	N	N	run/o&m/run "see note 2"
	13685	50	NT	159	471	577	9	619	1119	104622		N	Y	run/o&m/run "see note 2"
09/18/12	13779	55	NT	155	468	425	18	633	1297	104651	3.25	N	Y	run/o&m/run
09/24/12	13924	52	NT	156	466	612	10	622	1576	104685	4.00	N	Y	run/o&m/run
10/01/12	14090	55	NT	154	469	747	6	649	1910	104722	3.50	N	Y	run/o&m/run
10/08/12	14256	57	NT	153	476	251	0	647	2228	104764	3.00	N	Y	run/o&m/run
10/18/12	14493	61	NT	151	479	655	16	636	2688	104818	3.00	N	Y	run/o&m/run
10/22/12	14560	64	NT	145	484	596	7	638	2816	104837	3.00	N	Y	run/o&m/run
11/01/12	14800	74	NT	149	520	472	16	636	3277	104901	3.00	N	N	run/o&m/run
11/06/12	14920	70	NT	146	520	338	9	643	3504	104933	3.25	N	Y	run/o&m/run
11/13/12	15067	71	5150	140	398	481	9	644	3790	104972	3.25	N	N	run/o&m/run
11/19/12	15202	62	4950	141	382	231	2	628	4060	105009	3.00	N	N	run/o&m/run
11/27/12	15394	63	5100	139	395	219	6	614	4440	105061	3.00	N	Y	run/o&m/run
12/04/12	15559	65	5000	139	387	286	4	628	4771	105106	3.00	N	N	run/o&m/run
12/11/12	15729	63	5160	132	404	439	26	635	5118	105152	3.50	N	Y	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
12/18/12	15889	64	2460	130	193	276	0	618	5440	105192	3.25	N	N	run/o&m/run
12/27/12	16107	64	2600	127	205	959	12	636	5899	105246	3.00	N	N	run/o&m/run
01/02/13	16205	66	3100	125	246	822	12	627	6105	105274	3.25	N	Y	down/o&m,ted/run
01/07/13	16325	67	5255	128	414	359	6	642	6355	106307	3.25	N	N	run/o&m/run
01/14/13	16493	66	5150	120	411	346	21	625	6079	105354	3.25	N	N	run/o&m/run
01/16/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
01/21/13	16657	64	5100	132	399	381	6	637	7070	105398	3.00	N	Y	run/o&m,ted/run
01/28/13	16822	63	4900	125	388	305	9	626	7410	105443	3.50	N	N	run/o&m/run
02/07/13	17062	64	4700	135	366	285	7	690	7920	105509	3.00	N	Y	run/o&m,ted/run
02/11/13	17157	62	4736	125	375	165	4	687	8116	105535	3.00	N	N	run/o&m/run
02/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
02/19/13	17349	54	5100	127	403	243	27	620	8509	105588	3.50	N	N	run/o&m/run
02/25/13	17494	64	4950	124	393	266	5	640	8815	105627	3.50	N	N	run/o&m/run
03/04/13	17659	64	5150	127	407	256	28	1014	9167	105672	3.50	N	N	run/o&m/run
03/13/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	run/down "see note 3"
03/20/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
03/26/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down "see note 4"
04/09/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/19/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
04/23/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/25/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/30/13	17880	48	5560	146	425	737	32	690	9643	105750	0.00	N	Y	down/o&m/ted/down
05/15/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.00	NT	N	Down/monthly well
05/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/run "see note 5"
05/30/13	18050	33	8730	145	668	774	65	776	9978	105803	0.00	N	N	run/o&m/run "see note 6"
06/06/13	18218	54	9500	164	706	235	0	625	10289	105850	0.00	N	N	run/o&m/run
06/13/13	18387	64	9240	176	679	317	58	653	10589	105899	2.25	N	Y	run/o&m,ted/run
06/21/13	18574	72	9300	168	686	280	40	646	10907	105956	0.00	N	N	run/o&m/run
06/24/13	18647	73	9265	166	686	320	61	655	11033	105978	2.00	N	N	run/o&m/run
07/01/13	18792	64	5520	165	480	266	24	631	11284	106023	2.25	N	N	run/o&m/run
07/08/13	18959	58	4039	175	295	296	31	647	11550	106068	2.00	N	N	run/o&m/run
07/15/13	19128	60	4220	179	306	367	32	658	11821	106114	1.25	N	Y	run/o&m,ted/run
07/25/13	19363	61	4165	173	305	312	28	640	12213	106191	2.00	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
07/31/13	19418	60	4202	168	310	247	19	644	12302	106209	1.75	N	N	run/o&m/run
08/05/13	19538	64	4244	162	316	265	29	660	12498	106240	2.00	N	N	run/o&m/run
08/12/13	19706	63	4355	172	319	287	34	652	12772	106288	1.50	N	Y	run/o&m,ted/run
08/19/13	19874	64	4390	172	322	274	51	636	13045	106336	1.00	N	N	run/o&m/down "see note 7"
09/04/13	19877	60	4335	172	318	286	31	626	13052	106345	1.25	N	Y	down/o&m,ted/down
10/08/13	19879	60	4401	168	325	447	44	637	13054	106363	0.00	N	N	Down/O&M/run
10/10/13	19922	56	4567	152	346	1051	103	770	13125	106376	1.75	N	Y	run/o&m,ted/run
10/15/13	20046	54	4166	160	311	245	14	630	13334	106412	0.00	N	N	run/wells,o&m/run
10/21/13	20181	50	4000	153	302	459	19	667	13554	106449	0.75	N	N	run/o&m/run
10/30/13	20398	45	4065	153	307	377	24	636	13897	106505	1.00	N	N	run/o&m/run
11/07/13	20590	48	4063	148	309	508	4	682	14205	106556	1.00	N	Y	run/o&m,ted/run
11/11/13	20685	49	4100	149	312	296	11	631	14357	106578	1.00	N	N	run/o&m,well/down
11/19/13	20854	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	N	N	run/o&m/run
11/25/13	20997	49	4040	138	313	429	7	669	14870	106662	5.00	N	N	run/o&m/run
12/02/13	21165	48	4065	144	311	502	6	691	15149	106707	3.75	N	N	run/o&m/run
12/12/13	21407	51	4230	145	324	422	0	630	15550	106773	3.50	N	Y	run/o&m,ted/run
12/18/13	21523	49	4205	148	328	389	0	602	15746	106806	3.25	N	N	run/o&m/run
12/24/13	21668	49	4255	143	327	308	0	630	15971	106841	0.00	N	N	run/o&m/run
01/02/14	21881	48	4100	147	313	281	0	628	16294	106898	4.00	N	N	run/o&m/run
01/07/14	22004	49	4165	149	317	322	12	629	16485	NT	3.5	N	N	run/o&m/run
01/14/14	22169	45	4275	150	324	743	2	640	16734	106907	3.5	N	Y	run/o&m,ted/run
01/22/14	22357	48	4220	150	320	503	1	670	17016	107020	3.25	N	N	run/o&m/run
01/28/14	22497	46	4945	160	369	467	0	655	17223	107057	0	N	N	down/o&m/run
02/03/14	22601	40	4366	138	338	697	9	661	17361	107083	4	N	N	run/o&m/run
02/10/14	22768	65	3505	117	281	754	7	667	17663	107119	4	N	N	run/o&m/run
02/19/14	22983	68	3685	115	296	351	13	643	18072	107162	3.25	N	Y	run/o&m,ted/run
02/24/14	23012	NT	NT	NT	NT	NT	NT	NT	18126	107169	0	N	N	don/o&m/down
03/04/14	23106	58	3700	112	300	454	9	505	18305	107187	0	N	N	run/o&m/run
03/12/14	23250	NT	NT	NT	NT	NT	NT	NT	NT	NT	0	N	N	down for annual
03/27/14	23325	54	2820	115	227	722	1	552	18678	107223	0	N	Y	run/o&m,ted/run
04/03/14	23493	62	3330	114	269	410	7	642	18971	107253	5	N	N	run/o&m/run
04/07/14	23587	60	3285	118	263	527	4	662	19144	107270	4.5	N	N	run/o&m/run
04/14/14	23754	61	3175	122	253	372	7	645	19438	107303	0	N	Y	run/o&m,ted,wells/run
04/25/14	23992	61	3240	117	260	224	7	634	19866	107352	4.75	N	N	run/o&m/run
05/01/14	24136	64	3085	116	248	382	6	634	20133	107382	0	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
05/07/14	24282	61	3188	122	254	317	13	651	20391	107413	0	N	N	run/o&m/run
05/15/14	24476	60	3120	125	247	143	0	645	20747	107451	0	N	Y	run/o&m,ted,wells/run
09/19/14	24568	61	3165	123	252	282	0	639	20910	107468	5	N	N	run/o&m/run
05/27/14	247162	62	3210	127	253	376	14	651	21177	107495	4.5	N	N	run/o&m/run
06/05/14	24930	60	2930	139	227	441	17	650	21555	107528	4.75	N	Y	run/o&m,ted,wells/run
06/12/14	251002	60	2790	141	215	291	0	670	21856	107557	0	N	N	run/o&m/run
06/16/14	25195	58	2873	142	221	185	0	648	22026	107572	4	N	N	run/o&m/run
06/26/14	25431	60	2780	141	214	217	0	676	22449	107612	0	N	N	run/o&m/run
07/03/14	25591	60	2765	140	214	407	14	682	22743	107637	0	N	N	run/o&m/run
07/07/14	25647	59	2850	139	221	182	0	644	22850	107646	4.74	N	Y	down/o&m,ted/run
07/14/14	25819	60	2910	142	224	268	21	663	23154	107678	4.25	N	N	run/o&m/down
07/23/14	25871	60	2935	145	225	310	17	655	23242	107704	4.5	N	N	run/o&m/run
07/29/14	26014	60	3055	135	238	156	0	640	23492	107743	0	N	N	run/o&m/run
08/06/14	26208	61	2930	143	225	329	0	660	23841	107797	5	N	Y	run/o&m,ted/run
08/14/14	26398	55	2880	132	225	1000	0	657	24187	107850	0	N	N	run/o&m/run
08/19/14	26520	52	2860	137	222	1000	0	668	24408	107885	0	N	N	run/o&m/run
08/25/14	26663	59	2930	134	229	371	0	684	24667	107925	0	N	N	run/o&m/run
09/02/14	26814	52	2910	135	227	168	0.5	680	24935	107977	0	N	N	run/o&m/run
09/10/14	26985	55	3010	134	235	283	4	673	25233	108032	0	N	Y	run/o&m,ted/run
09/16/14	27068	54	3045	135	237	223	0	668	25379	108061	0	N	N	run/o&m/run
09/22/14	27211	54	3002	128	237	272	0	671	25628	108099	0	N	N	run/o&m/down
10/02/14	27427	54	3015	129	237	443	5	701	26007	108162	4.5	N	Y	run/o&m,ted/run
10/08/14	27570	57	2950	119	236	305	0.4	692	26262	108204	5.5	N	N	run/o&m/run
10/17/14	27786	56	2995	126	237	412	2.9	697	26651	108268	0	N	N	run/o&m/run
10/20/14	27858	55	2931	129	231	321	2.1	691	26780	108289	0	N	N	run/o&m/run
10/31/14	28113	55	3000	127	237	299	0.9	705	27245	108361	0	N	N	run/o&m/run
11/07/14	28281	57	2965	126	234	382	0.4	698	27556	108404	0	N	N	run/o&m/run
11/12/14	28401	55	3290	118	264	413	0.1	659	27772	108437	5	N	Y	run/o&m,ted/run
11/17/14	28427	45	2900	102	239	340	2.1	668	27817	108446	0	N	N	down/o&m/run
11/24/14	28594	60	3765	104	309	357	3.1	664	28170	108492	0	N	N	run/o&m/run
12/03/14	28785	58	3465	115	279	345	1.2	682	28559	108546	0	N	N	run/o&m/run
12/08/14	28905	57	3702	111	300	413	0.2	668	28808	108613	0	N	N	run/o&m/run
12/15/14	29068	60	3010	120	240	211	1.8	631	29157	108613	3.5	N	Y	run/o&m,ted,wells/down
12/24/14	29258	60	3951	99	327	291	9	664	29570	108669	0	N	N	run/o&m/run
12/29/14	29377	45	4130	89	348	314	12	690	29863	108704	0	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
01/07/15	29593	57	3630	108	296	528	4	677	30386	108767	0	N	N	run/o&m/run
01/14/15	29758	50	3190	101	263	259	7	647	30747	108821	0	N	Y	run/o&m,ted,wells/down
01/20/15	29879	60	3365	98	279	283	16	645	31001	108857	0	N	N	run/o&m/run
01/30/15	30066	55	3560	106	291	323	0.3	653	31397	108912	0	N	N	run/o&m/run
02/06/15	30236	52	3650	113	295	264	1.9	660	31789	108962	0	N	Y	run/o&m,ted,wells/down
02/12/15	30378	54	3585	106	293	316	0	669	32047	109003	0	N	N	run/o&m/run
02/17/15	30423	56	3527	110	287	321	8.6	642	32137	109017	3.75	N	Y	run/o&m,ted,wells/down
02/26/15	30616	55	3568	109	290	243	4.8	637	32528	109073	0	N	N	run/o&m/run
03/04/15	30760	55	3605	104	296	226	5.9	632	32818	109114	0	N	N	run/o&m/run
03/11/15	30928	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 8"
03/20/15	30929	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 9"
03/24/15	31018	30	2550	104	209	355	3.2	645	33372	109187	0	N	Y	run/o&m,ted/run
04/01/15	31212	55	3400	127	268	261	2.5	662	33969	109232	0	N	N	run/o&m/run
04/06/15	31331	58	3445	125	273	200	4.1	665	33739	109265	0	N	N	run/o&m/run
04/13/15	31499	62	3467	122	276	189	2.1	669	34329	109313	0	N	N	run/o&m/run
04/21/15	31663	59	3410	109	278	355	5.8	667	34696	109360	4.25	N	N	run/o&m/run
04/27/15	31686	57	3460	113	280	873	8.2	635	34747	109370	0	N	Y	run/o&m,ted/run
05/04/15	31771	NT	NT	NT	NT	NT	NT	NT	NT	109396	0	N	N	down/o&m/run
05/05/15	31772	NT	NT	NT	NT	NT	NT	NT	34918	109396	0	N	N	down/o&m/run
05/11/15	31893	65	3560	123	283	410	3.4	660	35179	109404	0	N	N	run/o&m/run
05/18/15	32081	60	3460	127	273	262	1.5	664	35579	109480	0	N	N	run/o&m/run
05/26/15	32228	50	3380	130	265	500	1.2	663	NT	109517	0	N	Y	run/o&m,ted/run
06/01/15	32373	50	3360	143	258	740	0.7	664	NT	109556	0	N	N	run/o&m/run
06/08/15	32540	60	3485	128	275	280	0.5	663	36556	109599	0	N	N	run/o&m/run
06/16/15	32731	64	4500	125	356	187	1.1	665	36760	109656	10	N	N	run/o&m/down
06/24/15	32852	50	4500	127	355	130	0.5	663	NT	109688	0	N	N	run/o&m/run
07/06/15	32998	50	4700	130	369	150	0.4	652	NT	NT	0	N	Y	run/o&m,ted/run
07/14/15	33165	52	4500	133	352	62.4	7	656	NT	109733	3	N	N	run/o&m/run
07/21/15	33314	54	4300	128	339	68	0.9	650	NT	109814	0	N	N	run/o&m/run
07/28/15	33484	65	5000	133	391	108	2.1	650	NT	109861	0	N	Y	run/o&m,ted/run
08/07/15	33646	65	5000	130	393	69.9	5	649	NT	109899	0	N	N	run/o&m/run
08/11/15	33740	60	4700	122	374	98.1	1.2	652	39114	109924	0	N	N	run/o&m/run
08/21/15	33952	50	4200	124	333	82.2	1.6	650	NT	109954	0	N	N	run/o&m/run
09/03/15	33983	30	3900	123	310	1322	8.1	656	NT	109961	0	N	Y	run/o&m,ted/run
09/09/15	34125	45	5000	122	398	351	9.3	653	NT	109990	0	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
09/15/15	34271	58	5000	128	394	78	1.8	656	NT	110024	0	N	N	run/o&m/run
09/22/15	34435	40	5500	125	436	33.3	4.4	656	NT	110064	0	N	N	run/o&m/run
09/24/15	34461	40	5300	123	421	48.1	0.5	653	40658	110070	4	N	N	run/o&m/run
09/28/15	34558	50	5400	127	426	73.4	1	645	NT	110093	0	N	Y	run/o&m,ted/run

[a] Reading was taken approximately 8-inches from the original location were the first two readings were collected.
[b] Reading was taken from system display screen.
[c] New natural gas meter was installed on August 10, 2012.
Note 1: Multiple system readings were collected with initial air sparge start up and optimize air sparge system.
Note 2: Multiple system readings were collected to optimize air sparge equipment.
Note 3: System was shutdown for City of Tucson sampling event and NAPL fingerprint assessment.
Note 4: Lori Ehman with City of Tucson was on-site and informed Cardno of upcoming well test and asked Cardno to postpone LNAPL until well testing is complete.
Note 5: Bill with the City of Tucson re-started the system with dilution open and Air Sparge system off.
Note 6: Re-started Air Sparge system.
Note 7: The remediation system was shut down due to poor destruction. Inspect the catalytic plate.
Note 8: Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling. OP hours were recorded and no additional readings were collected.
Note 9: After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additoinal readings were collected.
* Pre-compliance sample event, due to sample results from 8/12/13 showing poor destruction "NOT COMPLIANCE SAMPLE".
Highlighted cells indicate vapor sampling events.

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Aug-02	228	228	4,050	592	99	592	99
Solleco 500	Sep-02	324	552	6,500	1,501	250	2,093	349
Solleco 500	Oct-02	360	912	6,100	1,174	196	3,267	545
Solleco 500	Oct-02	344	1,256	4,400	750	125	4,016	670
Solleco 500	Oct-02	145	1,402	8,650	707	118	4,724	788
Solleco 500	Nov-02	339	1,741	4,100	798	133	5,522	921
Solleco 500	Dec-02	664	2,405	1,900	762	127	6,283	1,048
Solleco 500	Jan-03	359	2,764	1,900	489	82	6,772	1,129
Solleco 500	Feb-03	1,104	3,868	2,200	1,395	233	8,167	1,362
Solleco 500	Mar-03	454	4,322	3,650	986	164	9,153	1,526
Solleco 500	Oct-04	264	4,586	337	21,985	3,575	31,138	5,101
Solleco 500	Oct-04	408	4,994	447	784	131	31,922	5,231
Solleco 500	Nov-04	384	5,378	328	979	163	32,901	5,394
Solleco 500	Dec-04	336	5,714	118	629	105	33,530	5,499
Solleco 500	Dec-04	528	6,242	272	355	59	33,885	5,558
Solleco 500	Feb-05	312	6,554	455	484	81	34,369	5,639
Solleco 500	Mar-05	1,536	8,090	557	3,987	665	38,356	6,304
Solleco 500	May-05	840	8,930	220	2,669	445	41,025	6,748
Solleco 500	Jun-05	408	9,338	378	512	85	41,537	6,834
Solleco 500	Jul-05	720	10,058	1,500	1,553	259	43,090	7,093
Solleco 500	Aug-05	768	10,826	1,500	6,572	1,095	49,662	8,188
Solleco 500	Sep-05	744	11,570	1,508	6,367	638	56,029	8,826
Solleco 500	Oct-05	672	12,242	1,612	7,156	1,193	63,185	10,018
Solleco 500	Nov-05	624	12,866	988	4,073	679	67,258	10,697
Solleco 500	Dec-05	528	13,394	1,508	5,260	877	72,518	11,574
Solleco 500	Jan-06	864	14,258	1,196	6,827	1,138	79,345	12,712
Solleco 500	Feb-06	792	15,050	936	4,897	816	84,242	13,528
Solleco 500	Mar-06	720	15,770	1,101	5,237	873	89,479	14,401
Solleco 500	Apr-06	816	16,586	1,300	7,008	1,168	96,487	15,569
Solleco 500	May-06	552	17,138	1,508	5,499	917	101,986	16,485
Solleco 500	Jun-06	840	17,978	624	3,463	577	105,449	17,062
Solleco 500	Jul-06	792	18,770	1,326	6,938	1,156	112,387	18,219
Solleco 500	Aug-06	336	19,106	1,664	3,694	616	116,081	18,834
Solleco 500	Sep-06	984	20,090	2,800	18,528	3,088	134,609	21,922
Solleco 500	Jan-07	2,472	22,562	2,500	46,546	7,758	181,154	29,680
Solleco 500	Jan-07	312	22,874	3,500	5,875	979	187,029	30,659
Solleco 500	Mar-07	2,616	25,490	3,300	49,257	8,210	236,286	38,868
Solleco 500	Aug-07	2,736	28,226	8,500	76,619	12,770	312,905	51,638
Solleco 500	Oct-07	1,032	29,258	11,000	28,900	4,817	341,806	56,455
Solleco 500	Jan-08	2,376	31,634	910	66,538	11,090	408,344	67,545
Solleco 500	Mar-08	1,392	33,026	980	38,982	6,497	447,325	74,042
Solleco 500	Jun-08	864	33,890	610	24,453	4,076	471,778	78,117
Solleco 500	Sep-08	2,112	36,002	500	7,190	1,198	478,968	79,315

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 2 of 3)

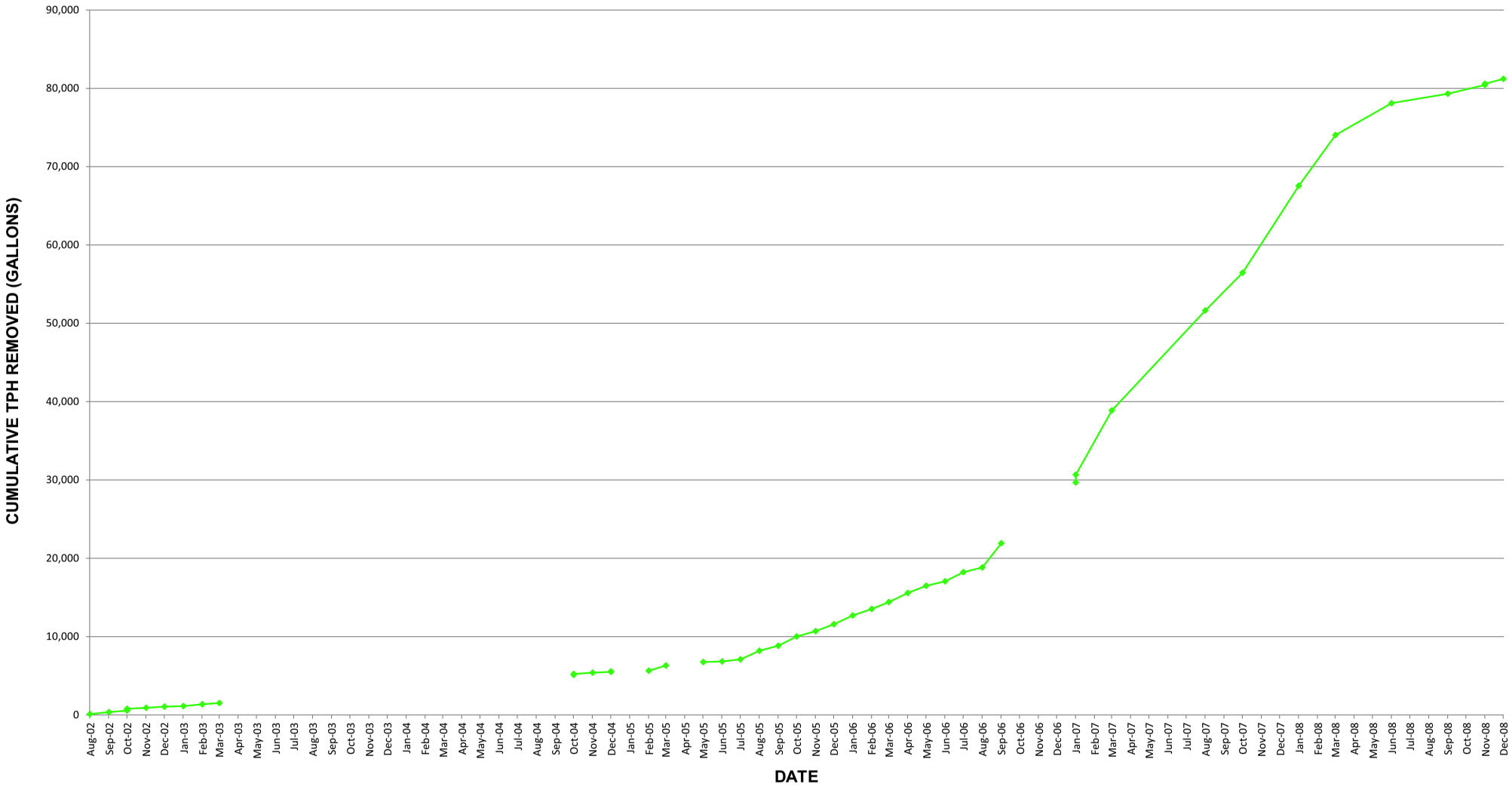
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Nov-08	1,248	37,250	800	6,798	1,133	485,766	80,448
Solleco 500	Nov-08	192	37,442	600	784	131	486,550	80,579
Solleco 500	Dec-08	816	38,258	690	3,833	639	490,383	81,218
Solleco 500	Jan-09	696	38,954	630	2,985	498	493,368	81,715
Solleco 500	Apr-09	2,624	41,578	320	5,716	953	499,084	82,668
Solleco 500	Aug-09	1,068	42,646	510	2,950	492	502,035	83,160
Solleco 500	Nov-09	2,232	44,878	560	6,166	1,028	508,201	84,187
Solleco 500	Mar-10	2,448	47,326	470	6,763	1,127	514,963	85,315
Solleco 500	Aug-10	2,712	50,038	330	7,492	1,249	522,455	86,563
Solleco 500	Nov-10	1,776	51,814	170	7,119	1,186	529,574	87,750
Solleco 500	Mar-11	2,784	54,598	207	11,159	1,860	540,733	89,610
Solleco 500	Jul-11	2,592	57,190	498	10,390	1,732	551,123	91,341
Solleco 500	Sep-11	1,680	58,870	1,160	6,734	1,122	557,857	92,464
Solleco 500	Dec-11	1,094	59,964	901	4,387	731	562,244	93,195
Solleco 500	Apr-12	96	60,060	252	77	13	562,320	93,208
Solleco 500	Apr-12	143	60,203	306	143	24	562,463	93,231
Solleco 500	May-12	524	60,727	164	262	44	562,725	93,275
Solleco 500	May-12	170	60,897	395	323	54	563,048	93,329
Solleco 500	May-12	45	60,942	251	63	11	563,111	93,339
Solleco 500	May-12	79	61,021	263	119	20	563,230	93,359
Solleco 500	May-12	192	61,213	263	288	48	563,518	93,407
Solleco 500	May-12	141	61,354	435	437	73	563,955	93,480
Solleco 500	Jun-12	144	61,498	236	173	29	564,128	93,509
Solleco 500	Jun-12	288	61,786	307	634	106	564,761	93,615
Solleco 500	Jun-12	189	61,975	347	473	79	565,234	93,693
Solleco 500	Aug-12	3,321	63,285	630	15,611	2,602	580,845	96,295
Solleco 500	Sep-12	213	63,498	810	1,263	211	582,108	96,506
Solleco 500	Sep-12	94	63,592	880	602	100	582,710	96,606
Solleco 500	Sep-12	145	63,737	900	945	158	583,655	96,764
Solleco 500	Oct-12	166	63,903	1,100	1,331	222	584,986	96,985
Solleco 500	Oct-12	166	64,069	320	393	66	585,379	97,051
Solleco 500	Oct-12	237	64,306	1,100	1,941	324	587,320	97,374
Solleco 500	Oct-12	67	64,373	730	368	61	587,688	97,436
Solleco 500	Nov-12	360	64,733	460	1,339	223	589,027	97,659
Solleco 500	Nov-12	474	65,207	440	1,281	214	590,308	97,872
Solleco 500	Dec-12	335	65,542	590	1,241	207	591,549	98,079
Solleco 500	Jan-13	476	66,018	760	1,383	231	592,932	98,310
Solleco 500	Jan-13	452	66,470	460	1,290	215	594,222	98,525
Solleco 500	Feb-13	405	66,875	370	853	142	595,075	98,667
Solleco 500	Apr-13	818	67,693	900	4,864	811	599,939	99,478
Solleco 500	Jul-13	1,248	68,941	767	4,553	759	604,492	100,236
Solleco 500	Aug-13	578	69,519	579	1,659	277	606,151	100,513
Solleco 500	Nov-13	884	70,403	891	3,783	631	609,934	101,143

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 3 of 3)

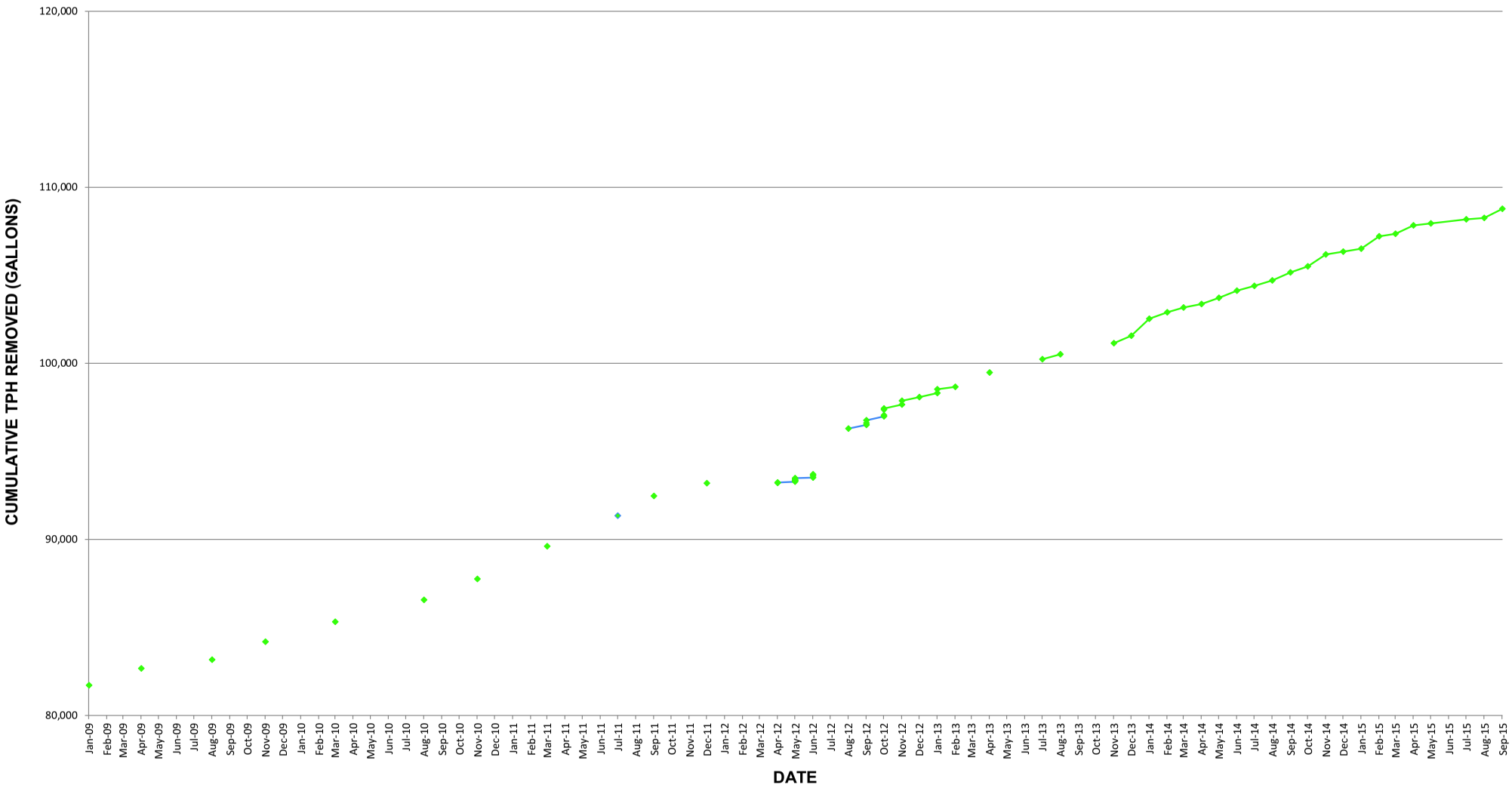
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Dec-13	817	71,220	619	2,547	425	612,481	101,568
Solleco 500	Jan-14	950	72,170	1,210	5,789	965	618,270	102,533
Solleco 500	Feb-14	626	72,796	765	2,203	367	620,473	102,900
Solleco 500	Mar-14	342	73,138	1,350	1,629	272	622,102	103,171
Solleco 500	Apr-14	429	73,567	705	1,189	198	623,291	103,370
Solleco 500	May-14	722	74,289	753	2,087	348	625,378	103,717
Solleco 500	Jun-14	454	74,743	1,540	2,467	411	627,845	104,129
Solleco 500	Jul-14	717	75,460	658	1,621	270	629,466	104,399
Solleco 500	Aug-14	561	76,021	958	1,880	313	631,346	104,712
Solleco 500	Sep-14	777	76,798	965	2,739	457	634,085	105,169
Solleco 500	Oct-14	442	77,240	1,260	2,052	342	636,137	105,511
Solleco 500	Nov-14	974	78,214	1,010	4,037	673	640,174	106,183
Solleco 500	Dec-14	667	78,881	398	990	165	641,164	106,348
Solleco 500	Jan-15	690	79,571	358	1,010	168	642,174	106,516
Solleco 500	Feb-15	665	80,236	1,410	4,183	697	646,357	107,213
Solleco 500	Mar-15	595	80,831	463	895	149	647,252	107,362
Solleco 500	Apr-15	668	81,499	979	2,846	474	650,098	107,836
Solleco 500	May-15	542	82,041	298	665	111	650,763	107,947
Solleco 500	Jul-15	770	82,811	319	1,409	235	652,172	108,182
Solleco 500	Aug-15	486	83,297	162	479	80	652,651	108,262
Solleco 500	Sep-15	499	83,796	1,280	3,078	513	655,729	108,775

(1) = Soil vapor extraction (SVE) well
(2) = Air infiltration/injection well
(3) = Nested vadose zone monitoring probe
(4) = System was shutdown November 1995 and was replaced with a 500-scfm
(5) = System was started on February 13, 1996
(6) = System was shutdown January 2001 and was replaced with a Paragon ET-150
(7) = System was shutdown September 4, 2002 and was restarted on November 4, 2002
(8) = System was shutdown December 31, 2002 for rebound recovery evaluation

Remediation information reported by Hydro Geo Chem
Remediation information reported by Groundwater Technology
Remediation information reported by Fluor Daniel GTI
Remediation information reported by The IT Group
Remediation information reported by SCS Engineers
Remediation information reported by Clear Creek Associates
Remediation information reported by City of Tucson
Average influent concentration
Remediation information reported by Cardno
Mass removal estimated using PID measurements



TFS-10 HISTORICAL TPH MASS REMOVAL
(2002 THROUGH 2008)



TFS-10 HISTORICAL TPH MASS REMOVAL
(2009 THROUGH 2015)

Cardno
Shaping the Future

Cardno

9977 North 90th Street,
Suite 150
Scottsdale, AZ 85258
USA

Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

March 16, 2016
I052000014.Q415TFS10

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Subject: **TFS-10 System Performance Summary**
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from October through December 2015. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

Fourth Quarter Field Activities

- Weekly system readings and equipment maintenance.
- Monthly well gauging, vapor monitoring, and non-aqueous phase liquid (NAPL) bailing.
- The remediation system has seven zones (1 through 7) which represent remediation wells on the same trunk lines; currently there are 23 wells connected to the seven remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remedial zones 1 through 4 were not operating; all of the remediation wells, excluding, well PCM-535A (zone 7) were operating in zones 5 through 7.
- Adjusted the bypass stingers to optimize the flow rate and vapor recovery in wells PCM-534A and PCM-507A (zone 7).
- On October 26th the AS/SVE system was shut down for routine maintenance on the equipment. The SVE system was restarted on November 24th, and due to low levels of NAPL in the monitor wells the AS system was not restarted.
- During the reporting period an estimated an estimated 1,912 pounds (approximately 319 gallons) of petroleum hydrocarbons were removed through the AS/SVE system.

- Manually bailed approximately 1.5 gallons of NAPL from monitor well PCM-516 and 11.5 gallons of NAPL from monitor well WR-220A. During the reporting period a cumulative 13.0 gallons (78 pounds) of NAPL was removed.
- An estimated 17,424 pounds (approximately 2,904 gallons) of petroleum hydrocarbons were removed through the AS/SVE remediation and NAPL removal activities during the reporting year of 2015.
- During the reporting period an estimated 1,990 pounds (approximately 332 gallons) of petroleum hydrocarbons were removed from the Site through AS/SVE remediation and NAPL removal activities. Since April 1, 2012 an estimated 106,840 pounds (approximately 17,807 gallons) of petroleum hydrocarbons have been removed from the Site through AS/SVE remediation and NAPL removal activities.

PROPOSED FIRST QUARTER 2016 SITE ACTIVITIES

- Continue weekly system readings, monthly well gauging, vapor monitoring, and NAPL bailing.
- Continue adjusting system to optimize vapor recovery.
- Continue adjusting bypass stingers to optimize flow rate and vapor recovery in wells PCM-534A and PCM-507A.

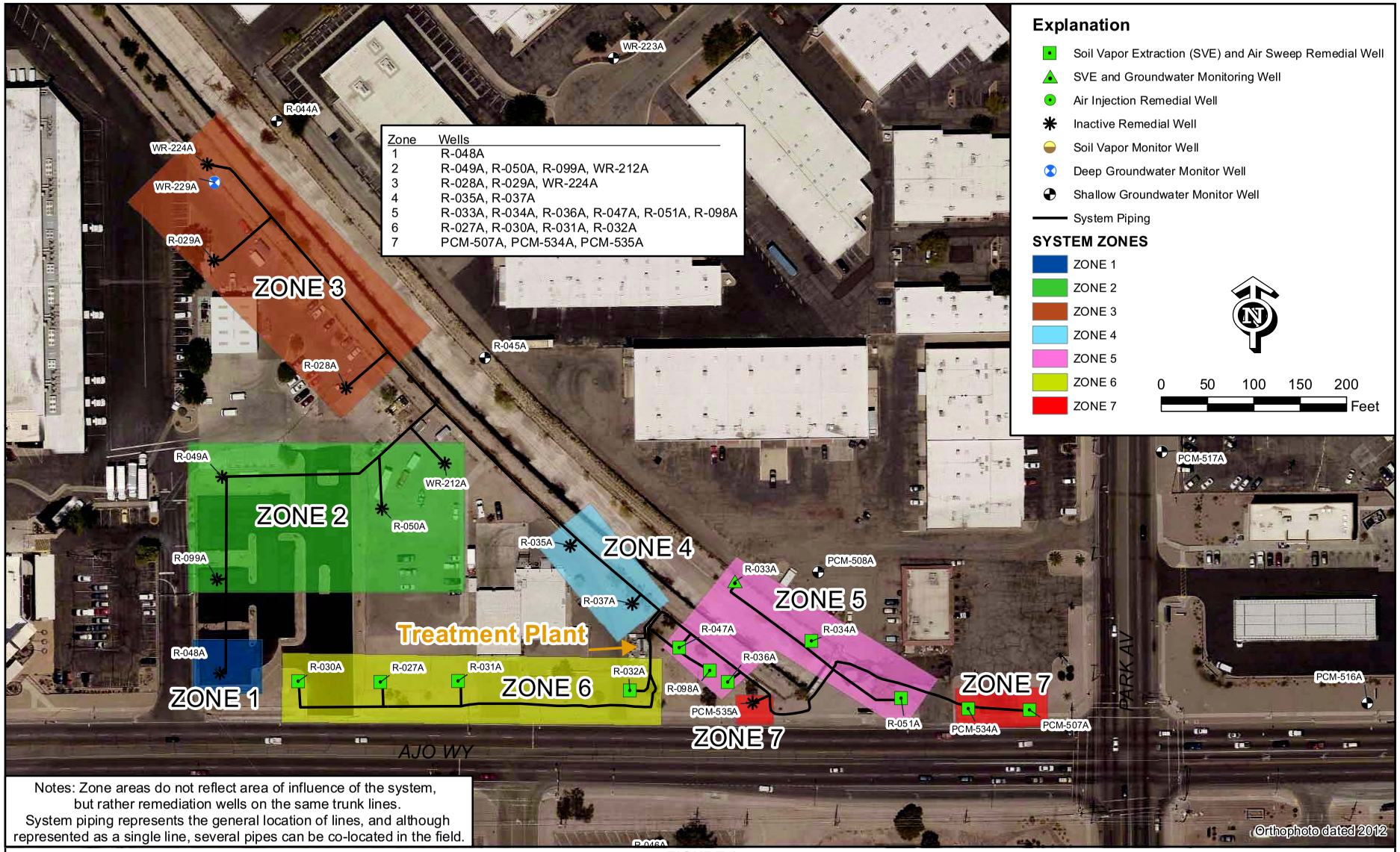
Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,

Justin T. Patton
Project Manager
for Cardno
Direct Line 602 909 3448
Email: justin.patton@cardno.com

Enclosures:

Figure 1	TFS-10 Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Influent Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Table 6	Manually Bailed NAPL Removal
Table 7	Annual NAPL Removal
Appendix A	Weekly Operation and Maintenance System Readings
Appendix B	Historical TPH mass removal table and graphs



Notes: Zone areas do not reflect area of influence of the system, but rather remediation wells on the same trunk lines. System piping represents the general location of lines, and although represented as a single line, several pipes can be co-located in the field.

CITY OF TUCSON
ENVIRONMENTAL SERVICES

FIGURE 1
TFS-10 SITE LAYOUT AND WELL LOCATION MAP
THOMAS O. PRICE SERVICE CENTER
4004 South Park Avenue
Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

J:\GIS\PRICE\2012\TFSSYS.mxd

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Op Hours	Vacuum (Inches H_2O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
08/27/12	13,472	67	318	480	167
09/05/12	13,685	50	577	471	159
09/18/12	13,779	55	425	468	155
09/24/12	13,924	52	612	466	156
10/01/12	14,090	55	747	469	154
10/08/12	14,256	57	251	476	153
10/18/12	14,493	61	655	479	151
10/22/12	14,560	64	596	484	145
11/06/12	14,920	70	338	520	146
11/27/12	15,394	63	219	395	139
12/11/12	15,729	63	439	404	132
01/02/13	16,205	66	822	246	125
01/21/13	16,657	64	381	399	132
02/07/13	17,062	64	285	366	135
04/30/13	17,880	48	737	425	146
07/15/13	19,128	60	367	306	179
08/12/13	19,706	63	287	319	172
11/07/13	20,590	48	508	309	148
12/12/13	21,407	51	422	324	145
01/14/14	22,357	45	743	324	150
02/19/14	22,983	68	351	296	115
03/27/14	23,325	54	722	227	115
04/14/14	23,754	61	372	253	122
05/15/14	24,476	60	143	247	125
06/05/14	24,930	60	441	227	139
07/07/14	25,647	59	182	221	139
08/06/14	26,208	61	329	225	143
09/10/14	26,985	55	283	235	134
10/02/14	27,427	54	443	237	129
11/12/14	28,401	55	413	264	118
12/15/14	29,068	60	211	240	120
01/14/15	29,758	50	259	263	101
02/17/15	30,423	56	321	287	110
03/24/15	31,018	30	355	209	104
04/27/15	31,686	57	873	280	113
05/26/15	32,228	50	500	265	130
07/06/15	32,998	50	150	369	130
07/28/15	33,484	65	108	391	133

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Op Hours	Vacuum (Inches H_2O)	VOC (ppmv)	Flow (scfm)	Temp (Deg. F)
09/03/15	33,983	30	1322	310	123
09/28/15	34,558	50	73	426	127
10/26/15	35,111	40	61	397	124
12/01/15	35,442	40	1100	265	98
01/05/16	36,255	42	1100	248	100
Average		**55**	**461**	**337**	**134**

Notes:

VOC	=	Volatile organic compounds concentrations reported from PID.
ppmv	=	Parts per million by volume.
scfm	=	Standard cubic feet per minute.
Deg. F	=	Degree Fahrenheit.

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
08/27/12	12:50	9.9	9.9	2.0	8.2	630
09/05/12	9:36	14	17	3.2	12	810
09/18/12	10:55	8.5	12	3.2	16	880
09/24/12	1:00	19	15	2.0	8.5	900
10/01/12	11:10	23	20	2.5	15	1,100
10/08/12	10:30	4.4	3.7	<5.0	4.4	320
10/18/12	11:15	22	18	2.0	12	1,100
10/22/12	11:20	14	13	1.8	7.6	730
11/06/12	11:15	8.1	8.0	<5.0	3.9	460
11/27/12	12:50	5.6	2.9	0.99	7.4	440
12/11/12	12:50	10	8.8	1.3	6.9	590
01/02/13	10:50	18	20	2.8	12	760
01/21/13	11:50	8.5	7.7	1.7	7.8	460
02/07/13	11:35	4.7	3.7	1.2	6.9	370
04/30/13	11:28	17	14	1.7	8.0	900
07/15/13	9:15	3.89	9.42	<2.30	17.2	767
08/12/13	8:40	2.48	5.03	<1.15	13.4	579
11/07/13	10:20	7.43	18.2	2.96	16.7	891
12/12/13	10:25	4.20	12.5	2.11	14.2	619
01/14/14	8:48	8.48	25.0	4.27	25.9	1,210
02/19/14	11:23	4.62	15.5	3.13	16.8	765
03/27/14	11:07	7.73	23.2	3.63	30.1	1,350
04/14/14	9:50	3.48	8.20	1.83	21.1	705
05/15/14	8:50	2.2	4.50	<1.15	9.76	753
06/05/14	9:50	12.0	23.3	3.00	27.0	1,540
07/07/14	9:55	3.37	5.50	<1.15	8.69	658
08/06/14	9:30	5.61	10.6	1.95	16.9	958
09/10/14	11:25	8.36	26.6	4.86	21.0	965
10/02/14	10:23	7.88	21.9	3.13	27.2	1,260
11/12/14	10:43	5.82	19.2	4.40	28.5	1,010
12/15/14	8:20	1.13	3.32	0.40	4.34	398
01/14/15	10:25	2.69	10.5	2.14	9.3	358
02/16/15	10:10	19.6	37.6	4.78	23.8	1,410
03/24/15	10:00	2.6	11.0	2.53	11.8	463
04/27/15	11:00	11.9	25.7	4.18	20.7	979
05/26/15	12:45	1.22	2.64	0.54	4.40	298
07/06/15	1:00	2.65	5.05	0.62	3.82	319

TABLE 2
INFLUENT VAPOR PROCESS STREAM ANALYTICAL RESULTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Time	B (ppmv)	T (ppmv)	E (ppmv)	X (ppmv)	TPH (ppmv)
07/28/15	11:00	0.61	1.08	0.23	3.02	162
09/03/15	12:00	16.4	62.0	10.9	47.5	1,280
09/28/15	11:15	0.54	1.21	0.24	2.65	160
10/26/15	11:15	0.49	1.14	0.25	1.92	65.5
12/01/15	9:45	0.56	13.2	4.95	19.7	222
01/05/16	12:00	<0.31	<0.27	0.30	4.35	442
Average		**7.59**	**12.3**	**2.35**	**12.9**	**737**

Notes:

ppmv = Part per million by volume.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
< = Below laboratory reporting limits.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
08/27/12	480	630	9.9	9.9	2.0	8.2	4.70	112.81	5.8E-02	1.4E+00	6.7E-02	1.6E+00	1.6E-02	3.8E-01	6.5E-02	1.6E+00
09/05/12	471	810	14	17	3.2	12	5.93	142.33	8.0E-02	1.9E+00	1.1E-01	2.7E+00	2.5E-02	6.0E-01	9.3E-02	2.2E+00
09/18/12	468	880	8.5	12	3.2	16	6.40	153.64	4.8E-02	1.2E+00	7.9E-02	1.9E+00	2.5E-02	5.9E-01	1.2E-01	3.0E+00
09/24/12	466	900	19	15	2.0	8.5	6.52	156.46	1.1E-01	2.6E+00	9.9E-02	2.4E+00	1.5E-02	3.7E-01	6.5E-02	1.6E+00
10/01/12	469	1,100	23	20	2.5	15	8.02	192.46	1.3E-01	3.1E+00	1.3E-01	3.2E+00	1.9E-02	4.6E-01	1.2E-01	2.8E+00
10/08/12	476	320	4.4	3.7	<5.0	4.4	2.37	56.82	2.5E-02	6.1E-01	2.5E-02	6.0E-01	3.9E-02	9.4E-01	3.5E-02	8.3E-01
10/18/12	479	1,100	22	18	2.0	12	8.19	196.57	1.3E-01	3.1E+00	1.2E-01	2.9E+00	1.6E-02	3.8E-01	9.5E-02	2.3E+00
10/22/12	484	730	14	13	1.8	7.6	5.49	131.81	8.2E-02	2.0E+00	8.9E-02	2.1E+00	1.4E-02	3.4E-01	6.1E-02	1.5E+00
11/06/12	520	460	8.1	8	<5.0	3.9	3.72	89.24	5.1E-02	1.2E+00	5.9E-02	1.4E+00	4.3E-02	1.0E+00	3.3E-02	8.0E-01
11/27/12	395	440	5.6	2.9	1.0	7.4	2.70	64.84	2.7E-02	6.4E-01	1.6E-02	3.9E-01	6.4E-03	1.5E-01	4.8E-02	1.2E+00
12/11/12	404	590	10	8.8	1.3	6.9	3.71	88.92	4.9E-02	1.2E+00	5.0E-02	1.2E+00	8.7E-03	2.1E-01	4.6E-02	1.1E+00
01/02/13	246	760	18	20	2.8	12	2.91	69.75	5.4E-02	1.3E+00	7.0E-02	1.7E+00	1.1E-02	2.7E-01	4.9E-02	1.2E+00
01/21/13	399	460	8.5	7.7	1.7	7.8	2.85	68.47	4.1E-02	9.9E-01	4.3E-02	1.0E+00	1.1E-02	2.7E-01	5.1E-02	1.2E+00
02/07/13	366	370	4.7	3.7	1.2	6.9	2.11	50.52	2.1E-02	5.0E-01	1.9E-02	4.6E-01	7.2E-03	1.7E-01	4.2E-02	1.0E+00
04/30/13	425	900	17	14	1.7	8.0	5.95	142.70	8.8E-02	2.1E+00	8.4E-02	2.0E+00	1.2E-02	2.9E-01	5.6E-02	1.3E+00
07/15/13	306	767	3.89	9.42	<2.30	17.2	3.65	87.56	1.4E-02	3.5E-01	4.1E-02	9.8E-01	1.2E-02	2.8E-01	8.7E-02	2.1E+00
08/12/13	319	579	2.48	5.03	<1.15	13.4	2.87	68.91	9.6E-03	2.3E-01	2.3E-02	5.4E-01	6.0E-03	1.5E-01	7.0E-02	1.7E+00
11/07/13	309	891	7.43	18.2	2.96	16.7	4.28	102.71	2.8E-02	6.7E-01	8.0E-02	1.9E+00	1.5E-02	3.6E-01	8.5E-02	2.0E+00
12/12/13	324	619	4.20	12.5	2.11	14.2	3.12	74.82	1.6E-02	4.0E-01	5.7E-02	1.4E+00	1.1E-02	2.7E-01	7.6E-02	1.8E+00
01/14/14	324	1,210	8.48	25.0	4.27	25.9	6.09	146.26	3.3E-02	8.0E-01	1.1E-01	2.7E+00	2.3E-02	5.5E-01	1.4E-01	3.3E+00
02/19/14	296	765	4.62	15.5	3.13	16.8	3.52	84.48	1.7E-02	4.0E-01	6.5E-02	1.6E+00	1.5E-02	3.7E-01	8.2E-02	2.0E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/27/14	227	1,350	7.73	23.2	3.63	30.1	4.76	114.33	2.1E-02	5.1E-01	7.4E-02	1.8E+00	1.4E-02	3.3E-01	1.1E-01	2.7E+00
04/14/14	253	705	3.48	8.20	1.83	21.1	2.77	66.54	1.1E-02	2.6E-01	2.9E-02	7.0E-01	7.6E-03	1.8E-01	8.8E-02	2.1E+00
05/15/14	247	753	2.23	4.50	1.15	9.76	2.89	69.39	6.7E-03	1.6E-01	1.6E-02	3.8E-01	4.7E-03	1.1E-01	4.0E-02	9.5E-01
06/05/14	227	1,540	12.0	23.3	3.00	27	5.43	130.42	3.3E-02	7.9E-01	7.5E-02	1.8E+00	1.1E-02	2.7E-01	1.0E-01	2.4E+00
07/07/14	221	658	3.37	5.50	1.15	8.69	2.26	54.25	9.0E-03	2.2E-01	1.7E-02	4.1E-01	4.2E-03	1.0E-01	3.2E-02	7.6E-01
08/06/14	225	958	5.61	10.6	1.95	16.9	3.35	80.41	1.5E-02	3.7E-01	3.4E-02	8.1E-01	7.2E-03	1.7E-01	6.3E-02	1.5E+00
09/10/14	235	965	8.36	26.6	4.86	21	3.53	84.60	2.4E-02	5.7E-01	8.8E-02	2.1E+00	1.9E-02	4.5E-01	8.1E-02	2.0E+00
10/02/14	237	1,260	7.88	21.9	3.13	27.2	4.64	111.40	2.3E-02	5.4E-01	7.3E-02	1.8E+00	1.2E-02	2.9E-01	1.1E-01	2.5E+00
11/12/14	264	1,010	5.82	19.2	4.40	28.5	4.14	99.47	1.9E-02	4.5E-01	7.2E-02	1.7E+00	1.9E-02	4.6E-01	1.2E-01	3.0E+00
12/15/14	240	398	1.13	3.32	0.40	4.34	1.48	35.63	3.3E-03	7.9E-02	1.1E-02	2.7E-01	1.6E-03	3.8E-02	1.7E-02	4.1E-01
01/14/15	263	358	2.69	10.5	2.14	9.27	1.46	35.13	8.6E-03	2.1E-01	3.9E-02	9.4E-01	9.3E-03	2.2E-01	4.0E-02	9.6E-01
02/16/15	287	1,410	19.6	37.6	4.78	23.8	6.29	150.97	6.8E-02	1.6E+00	1.5E-01	3.7E+00	2.3E-02	5.4E-01	1.1E-01	2.7E+00
03/24/15	209	463	2.60	11.0	2.53	11.8	1.50	36.10	6.6E-03	1.6E-01	3.3E-02	7.8E-01	8.7E-03	2.1E-01	4.1E-02	9.8E-01
04/27/15	280	979	11.9	25.7	4.18	20.7	4.26	102.26	4.0E-02	9.7E-01	1.0E-01	2.4E+00	1.9E-02	4.6E-01	9.6E-02	2.3E+00
05/26/15	265	298	1.22	2.64	0.54	4.4	1.23	29.46	3.9E-03	9.4E-02	9.9E-03	2.4E-01	2.4E-03	5.7E-02	1.9E-02	4.6E-01
07/06/15	369	319	2.65	5.05	0.62	3.82	1.83	43.91	1.2E-02	2.8E-01	2.6E-02	6.3E-01	3.8E-03	9.0E-02	2.3E-02	5.6E-01
07/28/15	391	162	0.61	1.08	0.23	3.02	0.98	23.63	2.9E-03	6.9E-02	6.0E-03	1.4E-01	1.5E-03	3.6E-02	1.9E-02	4.7E-01
09/03/15	310	1,280	16.4	62.0	10.9	47.5	6.17	148.03	6.2E-02	1.5E+00	2.7E-01	6.5E+00	5.6E-02	1.3E+00	2.4E-01	5.8E+00
09/28/15	426	160	0.54	1.21	0.24	2.65	1.06	25.43	2.8E-03	6.7E-02	7.3E-03	1.7E-01	1.7E-03	4.0E-02	1.9E-02	4.5E-01
10/26/15	397	65.5	0.49	1.14	0.25	1.92	0.40	9.70	2.4E-03	5.7E-02	6.4E-03	1.5E-01	1.6E-03	3.9E-02	1.3E-02	3.0E-01
12/01/15	265	222	0.56	13.2	4.95	19.7	0.91	21.95	1.8E-03	4.3E-02	4.9E-02	1.2E+00	2.2E-02	5.2E-01	8.6E-02	2.1E+00

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

Date	Flow (scfm)	Hydrocarbon Concentration (ppmv)					TPH (Lbs)		Benzene (Lbs)		Toluene (Lbs)		Ethylbenzene (Lbs)		Total Xylenes (Lbs)	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
01/05/16	248	442	0.31	0.27	0.30	4.35	1.70	40.89	9.3E-04	2.2E-02	9.5E-04	2.3E-02	1.2E-03	2.9E-02	1.8E-02	4.3E-01
AVERAGE	**337**	**737**	**7.59**	**12.3**	**2.35**	**12.9**	**3.68**	**88.28**	**3.5E-02**	**8.3E-01**	**6.1E-02**	**1.5E+00**	**1.4E-02**	**3.4E-01**	**7.0E-02**	**1.7E+00**

Notes:

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.

Lbs = Pounds.

scfm = Standard cubic feet per minute.

ppmv = Parts per million by volume.

< = Below minimum laboaratory reporting limits.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
08/27/12	3,321	**15,611**	**191.34**	**223.23**	**52.53**	**215.4**
09/05/12	213	**1,263**	**17.03**	**24.12**	**5.29**	**19.8**
09/18/12	94	**602**	**4.53**	**7.47**	**2.32**	**11.6**
09/24/12	145	**945**	**15.57**	**14.34**	**2.23**	**9.5**
10/01/12	166	**1,331**	**21.71**	**22.03**	**3.21**	**19.2**
10/08/12	166	**393**	**4.22**	**4.14**	**6.51**	**5.7**
10/18/12	237	**1,941**	**30.28**	**28.90**	**3.74**	**22.4**
10/22/12	67	**368**	**5.50**	**5.96**	**0.96**	**4.1**
11/06/12	360	**1,339**	**18.38**	**21.18**	**15.42**	**12.0**
11/27/12	474	**1,281**	**12.71**	**7.68**	**3.05**	**22.8**
12/11/12	335	**1,241**	**16.41**	**16.85**	**2.90**	**15.4**
01/02/13	476	**1,383**	**25.56**	**33.13**	**5.40**	**23.2**
01/21/13	452	**1,290**	**18.59**	**19.64**	**5.05**	**23.2**
02/07/13	405	**853**	**8.45**	**7.76**	**2.93**	**16.9**
04/30/13	818	**4,864**	**71.66**	**68.85**	**9.74**	**45.8**
07/15/13	1,248	**4,553**	**18.01**	**50.89**	**14.47**	**108.2**
08/12/13	578	**1,659**	**5.54**	**13.12**	**3.49**	**40.7**
11/07/13	884	**3,783**	**24.61**	**70.32**	**13.32**	**75.2**
12/12/13	817	**2,547**	**13.48**	**46.80**	**9.20**	**61.9**
01/14/14	950	**5,789**	**31.65**	**108.85**	**21.66**	**131.4**
02/19/14	626	**2,203**	**10.38**	**40.63**	**9.56**	**51.3**
03/27/14	342	**1,629**	**7.28**	**25.48**	**4.64**	**38.5**
04/14/14	429	**1,189**	**4.58**	**12.59**	**3.27**	**37.7**
05/15/14	722	**2,087**	**4.82**	**11.35**	**3.38**	**28.7**
06/05/14	454	**2,467**	**14.99**	**33.97**	**5.09**	**45.8**
07/07/14	717	**1,621**	**6.47**	**12.33**	**3.00**	**22.7**
08/06/14	561	**1,880**	**8.59**	**18.93**	**4.06**	**35.1**
09/10/14	777	**2,739**	**18.51**	**68.70**	**14.62**	**63.2**
10/02/14	442	**2,052**	**10.01**	**32.45**	**5.40**	**46.9**
11/12/14	974	**4,037**	**18.14**	**69.84**	**18.64**	**120.7**
12/15/14	667	**990**	**2.19**	**7.52**	**1.06**	**11.4**
01/14/15	690	**1,010**	**5.92**	**26.95**	**6.40**	**27.7**
02/17/15	665	**4,183**	**45.36**	**101.51**	**15.03**	**74.8**
03/24/15	595	**895**	**3.92**	**19.35**	**5.18**	**24.2**
04/27/15	668	**2,846**	**26.99**	**68.00**	**12.88**	**63.8**
05/26/15	542	**665**	**2.12**	**5.36**	**1.28**	**10.4**
07/06/15	770	**1,409**	**9.13**	**20.30**	**2.90**	**17.9**

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
07/28/15	486	**479**	**1.41**	**2.90**	**0.72**	**9.5**
09/03/15	499	**3,078**	**30.76**	**135.66**	**27.78**	**121.1**
09/28/15	575	**609**	**1.60**	**4.19**	**0.97**	**10.7**
10/26/15	553	**224**	**1.30**	**3.54**	**0.90**	**6.9**
12/01/15	331	**303**	**0.60**	**16.38**	**7.15**	**28.5**
01/05/16	813	**1,385**	**0.76**	**0.77**	**1.00**	**14.5**
TOTAL	**26,104**	**93,016**	**791.0**	**1,534**	**338.4**	**1,797**

Notes:

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.

lbs = Pounds.

OP Hours = Duration of SVE operation during period.

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs)[a]	Cumulative TPH (Lbs)	TPH (Gallons)[b]	Cumulative TPH (Gallons)[b]	Manually Bailed (Gallons)	Well Pumps (Gallons)[c]	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs)[d]	TPH (Gallons)[d]
04/03/12 - **08/27/12**	3321	15,611	15,611	2,602	2,602	83.50	520.00	603.50	1,277	23,270	3,878
08/27/12 - **09/05/12**	213	1,263	16,874	211	2,812	3.50	30.00	33.50	1,310	24,734	4,122
09/05/12 - **09/18/12**	94	602	17,476	100	2,913	6.25	33.50	39.75	1,350	25,575	4,262
09/18/12 - **09/24/12**	145	945	18,421	158	3,070	4.00	20.00	24.00	1,374	26,664	4,444
09/24/12 - **10/01/12**	166	1,331	19,752	222	3,292	3.50	23.25	26.75	1,401	28,156	4,693
10/01/12 - **10/08/12**	166	393	20,145	66	3,358	3.00	23.25	26.25	1,427	28,706	4,784
10/08/12 - **10/18/12**	237	1,941	22,086	324	3,681	3.00	33.00	36.00	1,463	30,863	5,144
10/18/12 - **10/22/12**	67	368	22,454	61	3,742	3.00	13.28	16.28	1,479	31,329	5,221
10/22/12 - **11/06/12**	360	1,339	23,793	223	3,965	9.25	50.00	59.25	1,538	33,023	5,504
11/06/12 - **11/27/12**	474	1,281	25,073	213	4,179	9.25	62.37	71.62	1,610	34,733	5,789
11/27/12 - **12/11/12**	335	1,241	26,315	207	4,386	9.50	36.52	46.02	1,656	36,251	6,042
12/11/12 - **01/02/13**	476	1,383	27,698	231	4,616	9.50	85.85	95.35	1,751	38,206	6,368
01/02/13 - **01/21/13**	452	1,290	28,987	215	4,831	9.50	72.56	82.06	1,833	39,988	6,665
01/21/13 - **02/07/13**	405	853	29,840	142	4,973	6.50	64.92	71.42	1,905	41,269	6,878
02/07/13 - **04/30/13**	818	4,864	34,704	811	5,784	13.50	191.00	204.50	2,109	47,360	7,893
04/30/13 - **07/15/13**	1248	4,553	39,257	759	6,543	8.25	---	8.25	2,118	51,962	8,660
07/15/13 - **08/12/13**	578	1,659	40,916	277	6,819	5.25	---	5.25	2,123	53,653	8,942
08/12/13 - **11/07/13**	884	3,783	44,699	631	7,450	6.75	---	6.75	2,130	57,477	9,579
11/07/13 - **12/12/13**	817	2,547	47,246	424	7,874	9.75	---	9.75	2,139	60,082	10,014
12/12/13 - **01/14/14**	950	5,789	53,036	965	8,839	14.25	---	14.25	2,154	65,957	10,993
01/14/14 - **02/19/14**	626	2,203	55,239	367	9,206	18.00	---	18.00	2,172	68,269	11,378
02/19/14 - **03/27/14**	342	1,629	56,868	272	9,478	0.00	---	0.00	2,172	69,898	11,650
03/27/14 - **04/14/14**	429	1,189	58,058	198	9,676	9.50	---	9.50	2,181	71,144	11,857
04/14/14 - **05/15/14**	722	2,087	60,145	348	10,024	4.75	---	4.75	2,186	73,260	12,210
05/15/14 - **06/05/14**	454	2,467	62,612	411	10,435	14.25	---	14.25	2,200	75,813	12,635

TABLE 5
CUMULATIVE TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Duration of SVE (Hours)	SVE System Removal				NAPL Removal				SVE and NAPL Removal	
		TPH (Lbs)[a]	Cumulative TPH (Lbs)	TPH (Gallons)[b]	Cumulative TPH (Gallons)[b]	Manually Bailed (Gallons)	Well Pumps (Gallons)[c]	Bailed/Pumped (Gallons)	Cumulative NAPL (Gallons)	TPH (Lbs)[d]	TPH (Gallons)[d]
06/05/14 - **07/07/14**	717	1,621	64,233	270	10,705	8.75	---	8.75	2,209	77,486	12,914
07/07/14 - **08/06/14**	561	1,880	66,112	313	11,019	8.75	---	8.75	2,218	79,418	13,236
08/06/14 - **09/10/14**	777	2,739	68,851	456	11,475	5.00	---	5.00	2,223	82,187	13,698
09/10/14 - **10/02/14**	442	2,052	70,903	342	11,817	4.50	---	4.50	2,227	84,266	14,044
10/02/14 - **11/12/14**	974	4,037	74,940	673	12,490	5.50	---	5.50	2,233	88,336	14,723
11/12/14 - **12/15/14**	667	990	75,930	165	12,655	15.25	---	15.25	2,248	89,417	14,903
12/15/14 - **01/14/15**	690	1,010	76,940	168	12,823	4.50	---	4.50	2,252	90,454	15,076
01/14/15 - **02/17/15**	665	4,183	81,123	697	13,521	3.75	---	3.75	2,256	94,660	15,777
02/17/15 - **03/24/15**	595	895	82,018	149	13,670	5.00	---	5.00	2,261	95,585	15,931
03/24/15 - **04/27/15**	668	2,846	84,865	474	14,144	4.25	---	4.25	2,265	98,457	16,409
04/27/15 - **05/26/15**	542	665	85,530	111	14,255	3.75	---	3.75	2,269	99,144	16,524
05/26/15 - **07/06/15**	770	1,409	86,939	235	14,490	10.00	---	10.00	2,279	100,613	16,769
07/06/15 - **07/28/15**	486	479	87,417	80	14,570	3.00	---	3.00	2,282	101,110	16,852
07/28/15 - **09/03/15**	499	3,078	90,495	513	15,083	5.00	---	5.00	2,287	104,218	17,370
09/03/15 - **09/28/15**	575	609	91,104	102	15,184	4.00	---	4.00	2,291	104,851	17,475
09/28/15 - **10/26/15**	331	224	91,328	37	15,221	5.00	---	5.00	2,296	105,104	17,517
10/26/15 - **12/01/15**	542	303	91,631	50	15,272	3.50	---	3.50	2,300	105,428	17,571
12/01/15 - **01/05/16**	813	1,385	93,016	231	15,503	4.50	---	4.50	2,304	106,840	17,807

Notes:

BOLD	=	Sample collection date.
TPH	=	Total petroleum hydrocarbons analyzed using EPA Method 8015.
NAPL	=	Non-aqueous phase liquid.
Lbs	=	Pounds.
---	=	All skimmer pump extraction wells were converted to air-sparge technology.
a	=	TPH lbs are calculated from mass removal from SVE remediaiton system.
b	=	TPH gallons are converted to gallons using 6 lbs = 1 gallon of TPH.
c	=	Well pump totals are calculated by subtracting the total volume of NAPL (combination of manually bailed and pneumatically pumped from well) in the storage vessel minus the manually bailed NAPL and averaged over the NAPL collection period.
d	=	Cumulative TPH lbs and gallons are calculated by adding NAPL removed from wells to mass removal from SVE remediaiton system.

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
04/03/12	R-028A,PCM-516	4.00	4.00
04/17/12	PCM-516	2.25	6.25
05/01/12	PCM-516	4.25	10.50
05/10/12	PCM-516	2.50	13.00
05/17/12	R-32,PCM-516	3.50	16.50
05/25/12	R-017A, 018A, 028A, 035A, 037A, PCM-516, WR-215A	11.3	27.75
05/31/12	PCM-516	3.00	30.75
06/06/12	PCM-516,17,18	7.75	38.50
06/12/12	PCM-516,17,18	3.25	41.75
06/18/12	PCM-516	3.00	44.75
06/28/12	PCM-516,35,37	5.75	50.50
07/05/12	PCM-516, R-099	5.25	55.75
07/10/12	PCM-516	3.00	58.75
07/18/12	PCM-516, R-099	7.50	66.25
07/25/12	PCM-516	3.00	69.25
07/30/12	PCM-516	3.25	72.50
08/10/12	PCM-516	8.00	80.50
08/27/12	PCM-516	3.00	83.50
09/05/12	PCM-516	3.50	87.00
09/14/12	PCM-516	3.00	90.00
09/18/12	PCM-516	3.25	93.25
09/24/12	PCM-516	4.00	97.25
10/01/12	PCM-516	3.50	100.75
10/08/12	PCM-516	3.00	103.75
10/18/12	PCM-516	3.00	106.75
10/22/12	PCM-516	3.00	109.75
11/01/12	PCM-516	3.00	112.75
11/06/12	PCM-516	3.25	116.00
11/13/12	PCM-516	3.25	119.25
11/19/12	PCM-516	3.00	122.25
11/27/12	PCM-516	3.00	125.25
12/04/12	PCM-516	3.00	128.25
12/11/12	PCM-516	3.50	131.75
12/18/12	PCM-516	3.25	135.00
12/27/12	PCM-516	3.00	138.00
01/02/13	PCM-516	3.25	141.25
01/07/13	PCM-516	3.25	144.50
01/14/13	PCM-516	3.25	147.75
01/21/13	PCM-516	3.00	150.75
01/28/13	PCM-516	3.50	154.25
02/07/13	PCM-516	3.00	157.25
02/11/13	PCM-516	3.00	160.25
02/19/13	PCM-516	3.50	163.75
02/25/13	PCM-516	3.50	167.25
03/04/13	PCM-516	3.50	170.75
05/15/13	R-028A, 035A, 037A, 050A, PCM-516	4.00	174.75
06/13/13	PCM-516	2.25	177.00
06/24/13	PCM-516	2.00	179.00

TABLE 6
MANUALLY BAILED NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 2)

Date	Wells Bailed	NAPL Removed Gallons	Cummulative NAPL Gallons
07/31/13	PCM-516	1.75	180.75
08/05/13	PCM-516	2.00	182.75
08/12/13	PCM-516	1.50	184.25
08/19/13	PCM-516	1.00	185.25
09/04/13	PCM-516	1.25	186.50
10/10/13	PCM-516	1.75	188.25
10/21/13	PCM-516	0.75	189.00
10/30/13	PCM-516	1.00	190.00
11/07/13	PCM-516	1.00	191.00
11/11/13	PCM-516	1.00	192.00
11/25/13	PCM-516, WR-220A	5.00	197.00
12/02/13	PCM-516, WR-220A	3.75	200.75
12/18/13	PCM-516, WR-220A	3.25	204.00
01/02/14	PCM-516, WR-220A	4.00	208.00
01/07/14	PCM-516, WR-220A	3.50	211.50
01/14/14	PCM-516, WR-220A	3.50	215.00
01/22/14	PCM-516, WR-220A	3.25	218.25
02/03/14	PCM-516, WR-220A	4.00	222.25
02/10/14	PCM-516, WR-220A	4.00	226.25
02/19/14	PCM-516, WR-220A	3.25	229.50
04/03/14	PCM-516, WR-220A	5.00	234.50
04/07/14	PCM-516, WR-220A	4.50	239.00
04/25/14	PCM-516, WR-220A	4.75	243.75
05/19/14	PCM-516, WR-220A	5.00	248.75
05/27/14	PCM-516, WR-220A	4.50	253.25
06/05/14	PCM-516, WR-220A	4.75	258.00
06/16/14	PCM-516, WR-220A	4.00	262.00
07/07/14	PCM-516, WR-220A	4.75	266.75
07/14/14	PCM-516, WR-220A	4.25	271.00
07/23/14	PCM-516, WR-220A	4.50	275.50
08/06/14	PCM-516, WR-220A	5.00	280.50
10/02/14	PCM-516, WR-220A	4.50	285.00
10/08/14	PCM-516, WR-220A	5.50	290.50
11/25/14	R-031A, R-098, PCM-507, PCM-516, WR-220A	11.75	302.25
12/15/14	PCM-516, WR-220A	3.50	305.75
01/15/15	PCM-516, WR-220A	4.50	310.25
02/17/15	PCM-516, WR-220A	3.75	314.00
03/16/15	PCM-516, WR-220A	5.00	319.00
04/21/15	PCM-516, WR-220A	4.25	323.25
05/19/15	WR-220A	3.75	327.00
06/16/15	WR-220A	10.00	337.00
07/13/15	WR-220A	3.00	340.00
08/25/15	PCM-516, WR-220A	5.00	345.00
09/23/15	PCM-516, WR-220A	4.00	349.00
10/21/15	PCM-516, WR-220A	5.00	354.00
11/18/15	PCM-516, WR-220A	3.50	357.50
12/23/15	PCM-516, WR-220A	4.50	362.00

Notes:

NAPL = Non-aqueous phase liquid.

TABLE 7
ANNUAL NAPL REMOVAL
Thomas O. Price Service Center - TFS-10 System
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 1)

Time Period	NAPL Removed Bailed/Pumped (Gallons)	Cummulative NAPL Removal (Gallons)
1998	86	86
1999	131	217
2000	45	262
2001	45	307
2002	28	335
2003	956	1,291
2004	1,210	2,501
2005	1,365	3,866
2006	923	4,789
2007	2,315	7,104
2008	2,577	9,681
2009	1,200	10,881
2010	1,703	12,584
2011	1,750	14,334
2012	1,690	16,024
2013	473	16,497
2014	133	16,630
2015	56	16,553

Notes:

NAPL = Non-aqueous phase liquid.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
04/03/12	10151	64	2700	134	211	252	0.7	619	82438	103776	4.00	N	N	run/o&m/run
04/09/12	10294	59	2800	145	215	306	1.3	601	82724	103806	0.00	N	N	run/o&m/run
05/01/12	10818	58	2400	146	184	164	4	624	83794	103918	4.25	N	N	run/o&m/run
05/08/12	10984	58	2400	137	186	246	4	614	84141	103954	0.00	N	N	run/o&m/run "see note 1"
	10985	57	2400	144	184	368	1	691	84143	103955		N	N	
	10988	85	4200[a]	166	311	395	1	696	84148	103955		N	N	
05/10/12	11033	67	4800	153	363	251	2	623	84241	103968	2.50	N	N	run/o&m/run
05/17/12	11109	65	4900	163	365	238	1	627	84388	103988	3.50	N	N	run/o&m/run "see note 2"
	11112	63	5000	169	369	263	4	630	84393	103989		N	N	
05/25/12	11304	63	NT[b]	160	450[b]	246	2	635	84765	104034	11.25	N	N	run/o&m/run
05/31/12	11443	55	NT	146	459	255	3	620	85034	104067	3.00	N	N	run/o&m/run "see note 2"
	11445	54	NT	155	458	435	0	704	85039	104067		N	N	
06/28/12	12066	60	NT	168	472	347	21	688	86299	104213	5.75	N	N	run/o&m/run
07/05/12	12237	77	NT	171	481	635	7	778	86647	104254	5.25	N	N	run/o&m/run
07/25/12	12701	62	NT	159	462	558	11	705	87525	104367	3.00	N	N	run/o&m/run
07/30/12	12820	63	NT	157	465	287	2	658	87754	104397	3.25	N	N	run/o&m/run
08/10/12	13070	59	NT	169	479	221	6	644	0004[c]	104459	8.00	N	N	run/o&m/run
08/14/12	13163	60	NT	171	485	233	13	653	00168	104484	0.00	N	N	run/o&m/run
08/20/12	13305	67	NT	169	483	256	16	654	00431	104521	8.00	N	N	run/o&m/run
08/27/12	13472	67	NT	167	480	318	11	685	00733	104565	3.00	N	Y	run/o&m/run
09/05/12	13683	68	NT	154	463	302	14	655	1119	104622	3.50	N	N	run/o&m/run "see note 2"
	13685	50	NT	159	471	577	9	619	1119	104622		N	Y	run/o&m/run "see note 2"
09/18/12	13779	55	NT	155	468	425	18	633	1297	104651	3.25	N	Y	run/o&m/run
09/24/12	13924	52	NT	156	466	612	10	622	1576	104685	4.00	N	Y	run/o&m/run
10/01/12	14090	55	NT	154	469	747	6	649	1910	104722	3.50	N	Y	run/o&m/run
10/08/12	14256	57	NT	153	476	251	0	647	2228	104764	3.00	N	Y	run/o&m/run
10/18/12	14493	61	NT	151	479	655	16	636	2688	104818	3.00	N	Y	run/o&m/run
10/22/12	14560	64	NT	145	484	596	7	638	2816	104837	3.00	N	Y	run/o&m/run
11/01/12	14800	74	NT	149	520	472	16	636	3277	104901	3.00	N	N	run/o&m/run
11/06/12	14920	70	NT	146	520	338	9	643	3504	104933	3.25	N	Y	run/o&m/run
11/13/12	15067	71	5150	140	398	481	9	644	3790	104972	3.25	N	N	run/o&m/run
11/19/12	15202	62	4950	141	382	231	2	628	4060	105009	3.00	N	N	run/o&m/run
11/27/12	15394	63	5100	139	395	219	6	614	4440	105061	3.00	N	Y	run/o&m/run
12/04/12	15559	65	5000	139	387	286	4	628	4771	105106	3.00	N	N	run/o&m/run
12/11/12	15729	63	5160	132	404	439	26	635	5118	105152	3.50	N	Y	run/o&m/run
12/18/12	15889	64	2460	130	193	276	0	618	5440	105192	3.25	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
12/27/12	16107	64	2600	127	205	959	12	636	5899	105246	3.00	N	N	run/o&m/run
01/02/13	16205	66	3100	125	246	822	12	627	6105	105274	3.25	N	Y	down/o&m,ted/run
01/07/13	16325	67	5255	128	414	359	6	642	6355	106307	3.25	N	N	run/o&m/run
01/14/13	16493	66	5150	120	411	346	21	625	6079	105354	3.25	N	N	run/o&m/run
01/16/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
01/21/13	16657	64	5100	132	399	381	6	637	7070	105398	3.00	N	Y	run/o&m,ted/run
01/28/13	16822	63	4900	125	388	305	9	626	7410	105443	3.50	N	N	run/o&m/run
02/07/13	17062	64	4700	135	366	285	7	690	7920	105509	3.00	N	Y	run/o&m,ted/run
02/11/13	17157	62	4736	125	375	165	4	687	8116	105535	3.00	N	N	run/o&m/run
02/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
02/19/13	17349	54	5100	127	403	243	27	620	8509	105588	3.50	N	N	run/o&m/run
02/25/13	17494	64	4950	124	393	266	5	640	8815	105627	3.50	N	N	run/o&m/run
03/04/13	17659	64	5150	127	407	256	28	1014	9167	105672	3.50	N	N	run/o&m/run
03/13/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	run/down "see note 3"
03/20/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
03/26/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down "see note 4"
04/09/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/18/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/19/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/monthly well
04/23/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/25/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	down/down
04/30/13	17880	48	5560	146	425	737	32	690	9643	105750	0.00	N	Y	down/o&m/ted/down
05/15/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	4.00	NT	N	Down/monthly well
05/24/13	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	NT	N	Down/run "see note 5"
05/30/13	18050	33	8730	145	668	774	65	776	9978	105803	0.00	N	N	run/o&m/run "see note 6"
06/06/13	18218	54	9500	164	706	235	0	625	10289	105850	0.00	N	N	run/o&m/run
06/13/13	18387	64	9240	176	679	317	58	653	10589	105899	2.25	N	Y	run/o&m,ted/run
06/21/13	18574	72	9300	168	686	280	40	646	10907	105956	0.00	N	N	run/o&m/run
06/24/13	18647	73	9265	166	686	320	61	655	11033	105978	2.00	N	N	run/o&m/run
07/01/13	18792	64	5520	165	480	266	24	631	11284	106023	2.25	N	N	run/o&m/run
07/08/13	18959	58	4039	175	295	296	31	647	11550	106068	2.00	N	N	run/o&m/run
07/15/13	19128	60	4220	179	306	367	32	658	11821	106114	1.25	N	Y	run/o&m,ted/run
07/25/13	19363	61	4165	173	305	312	28	640	12213	106191	2.00	N	N	run/o&m/run
07/31/13	19418	60	4202	168	310	247	19	644	12302	106209	1.75	N	N	run/o&m/run
08/05/13	19538	64	4244	162	316	265	29	660	12498	106240	2.00	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
08/12/13	19706	63	4355	172	319	287	34	652	12772	106288	1.50	N	Y	run/o&m,ted/run
08/19/13	19874	64	4390	172	322	274	51	636	13045	106336	1.00	N	N	run/o&m/down "see note 7"
09/04/13	19877	60	4335	172	318	286	31	626	13052	106345	1.25	N	Y	down/o&m,ted/down
10/08/13	19879	60	4401	168	325	447	44	637	13054	106363	0.00	N	N	Down/O&M/run
10/10/13	19922	56	4567	152	346	1051	103	770	13125	106376	1.75	N	Y	run/o&m,ted/run
10/15/13	20046	54	4166	160	311	245	14	630	13334	106412	0.00	N	N	run/wells,o&m/run
10/21/13	20181	50	4000	153	302	459	19	667	13554	106449	0.75	N	N	run/o&m/run
10/30/13	20398	45	4065	153	307	377	24	636	13897	106505	1.00	N	N	run/o&m/run
11/07/13	20590	48	4063	148	309	508	4	682	14205	106556	1.00	N	Y	run/o&m,ted/run
11/11/13	20685	49	4100	149	312	296	11	631	14357	106578	1.00	N	N	run/o&m,well/down
11/19/13	20854	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00	N	N	run/o&m/run
11/25/13	20997	49	4040	138	313	429	7	669	14870	106662	5.00	N	N	run/o&m/run
12/02/13	21165	48	4065	144	311	502	6	691	15149	106707	3.75	N	N	run/o&m/run
12/12/13	21407	51	4230	145	324	422	0	630	15550	106773	3.50	N	Y	run/o&m,ted/run
12/18/13	21523	49	4205	148	328	389	0	602	15746	106806	3.25	N	N	run/o&m/run
12/24/13	21668	49	4255	143	327	308	0	630	15971	106841	0.00	N	N	run/o&m/run
01/02/14	21881	48	4100	147	313	281	0	628	16294	106898	4.00	N	N	run/o&m/run
01/07/14	22004	49	4165	149	317	322	12	629	16485	NT	3.5	N	N	run/o&m/run
01/14/14	22169	45	4275	150	324	743	2	640	16734	106907	3.5	N	Y	run/o&m,ted/run
01/22/14	22357	48	4220	150	320	503	1	670	17016	107020	3.25	N	N	run/o&m/run
01/28/14	22497	46	4945	160	369	467	0	655	17223	107057	0	N	N	down/o&m/run
02/03/14	22601	40	4366	138	338	697	9	661	17361	107083	4	N	N	run/o&m/run
02/10/14	22768	65	3505	117	281	754	7	667	17663	107119	4	N	N	run/o&m/run
02/19/14	22983	68	3685	115	296	351	13	643	18072	107162	3.25	N	Y	run/o&m,ted/run
02/24/14	23012	NT	NT	NT	NT	NT	NT	NT	18126	107169	0	N	N	don/o&m/down
03/04/14	23106	58	3700	112	300	454	9	505	18305	107187	0	N	N	run/o&m/run
03/12/14	23250	NT	NT	NT	NT	NT	NT	NT	NT	NT	0	N	N	down for annual
03/27/14	23325	54	2820	115	227	722	1	552	18678	107223	0	N	Y	run/o&m,ted/run
04/03/14	23493	62	3330	114	269	410	7	642	18971	107253	5	N	N	run/o&m/run
04/07/14	23587	60	3285	118	263	527	4	662	19144	107270	4.5	N	N	run/o&m/run
04/14/14	23754	61	3175	122	253	372	7	645	19438	107303	0	N	Y	run/o&m,ted,wells/run
04/25/14	23992	61	3240	117	260	224	7	634	19866	107352	4.75	N	N	run/o&m/run
05/01/14	24136	64	3085	116	248	382	6	634	20133	107382	0	N	N	run/o&m/run
05/07/14	24282	61	3188	122	254	317	13	651	20391	107413	0	N	N	run/o&m/run
05/15/14	24476	60	3120	125	247	143	0	645	20747	107451	0	N	Y	run/o&m,ted,wells/run
09/19/14	24568	61	3165	123	252	282	0	639	20910	107468	5	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
05/27/14	247162	62	3210	127	253	376	14	651	21177	107495	4.5	N	N	run/o&m/run
06/05/14	24930	60	2930	139	227	441	17	650	21555	107528	4.75	N	Y	run/o&m,ted,wells/run
06/12/14	251002	60	2790	141	215	291	0	670	21856	107557	0	N	N	run/o&m/run
06/16/14	25195	58	2873	142	221	185	0	648	22026	107572	4	N	N	run/o&m/run
06/26/14	25431	60	2780	141	214	217	0	676	22449	107612	0	N	N	run/o&m/run
07/03/14	25591	60	2765	140	214	407	14	682	22743	107637	0	N	N	run/o&m/run
07/07/14	25647	59	2850	139	221	182	0	644	22850	107646	4.74	N	Y	down/o&m,ted/run
07/14/14	25819	60	2910	142	224	268	21	663	23154	107678	4.25	N	N	run/o&m/down
07/23/14	25871	60	2935	145	225	310	17	655	23242	107704	4.5	N	N	run/o&m/run
07/29/14	26014	60	3055	135	238	156	0	640	23492	107743	0	N	N	run/o&m/run
08/06/14	26208	61	2930	143	225	329	0	660	23841	107797	5	N	Y	run/o&m,ted/run
08/14/14	26398	55	2880	132	225	1000	0	657	24187	107850	0	N	N	run/o&m/run
08/19/14	26520	52	2860	137	222	1000	0	668	24408	107885	0	N	N	run/o&m/run
08/25/14	26663	59	2930	134	229	371	0	684	24667	107925	0	N	N	run/o&m/run
09/02/14	26814	52	2910	135	227	168	0.5	680	24935	107977	0	N	N	run/o&m/run
09/10/14	26985	55	3010	134	235	283	4	673	25233	108032	0	N	Y	run/o&m,ted/run
09/16/14	27068	54	3045	135	237	223	0	668	25379	108061	0	N	N	run/o&m/run
09/22/14	27211	54	3002	128	237	272	0	671	25628	108099	0	N	N	run/o&m/down
10/02/14	27427	54	3015	129	237	443	5	701	26007	108162	4.5	N	Y	run/o&m,ted/run
10/08/14	27570	57	2950	119	236	305	0.4	692	26262	108204	5.5	N	N	run/o&m/run
10/17/14	27786	56	2995	126	237	412	2.9	697	26651	108268	0	N	N	run/o&m/run
10/20/14	27858	55	2931	129	231	321	2.1	691	26780	108289	0	N	N	run/o&m/run
10/31/14	28113	55	3000	127	237	299	0.9	705	27245	108361	0	N	N	run/o&m/run
11/07/14	28281	57	2965	126	234	382	0.4	698	27556	108404	0	N	N	run/o&m/run
11/12/14	28401	55	3290	118	264	413	0.1	659	27772	108437	5	N	Y	run/o&m,ted/run
11/17/14	28427	45	2900	102	239	340	2.1	668	27817	108446	0	N	N	down/o&m/run
11/24/14	28594	60	3765	104	309	357	3.1	664	28170	108492	0	N	N	run/o&m/run
12/03/14	28785	58	3465	115	279	345	1.2	682	28559	108546	0	N	N	run/o&m/run
12/08/14	28905	57	3702	111	300	413	0.2	668	28808	108613	0	N	N	run/o&m/run
12/15/14	29068	60	3010	120	240	211	1.8	631	29157	108613	3.5	N	Y	run/o&m,ted,wells/down
12/24/14	29258	60	3951	99	327	291	9	664	29570	108669	0	N	N	run/o&m/run
12/29/14	29377	45	4130	89	348	314	12	690	29863	108704	0	N	N	run/o&m/run
01/07/15	29593	57	3630	108	296	528	4	677	30386	108767	0	N	N	run/o&m/run
01/14/15	29758	50	3190	101	263	259	7	647	30747	108821	0	N	Y	run/o&m,ted,wells/down
01/20/15	29879	60	3365	98	279	283	16	645	31001	108857	0	N	N	run/o&m/run
01/30/15	30066	55	3560	106	291	323	0.3	653	31397	108912	0	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
02/06/15	30236	52	3650	113	295	264	1.9	660	31789	108962	0	N	Y	run/o&m,ted,wells/down
02/12/15	30378	54	3585	106	293	316	0	669	32047	109003	0	N	N	run/o&m/run
02/17/15	30423	56	3527	110	287	321	8.6	642	32137	109017	3.75	N	Y	run/o&m,ted,wells/down
02/26/15	30616	55	3568	109	290	243	4.8	637	32528	109073	0	N	N	run/o&m/run
03/04/15	30760	55	3605	104	296	226	5.9	632	32818	109114	0	N	N	run/o&m/run
03/11/15	30928	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 8"
03/20/15	30929	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	"see note 9"
03/24/15	31018	30	2550	104	209	355	3.2	645	33372	109187	0	N	Y	run/o&m,ted/run
04/01/15	31212	55	3400	127	268	261	2.5	662	33969	109232	0	N	N	run/o&m/run
04/06/15	31331	58	3445	125	273	200	4.1	665	33739	109265	0	N	N	run/o&m/run
04/13/15	31499	62	3467	122	276	189	2.1	669	34329	109313	0	N	N	run/o&m/run
04/21/15	31663	59	3410	109	278	355	5.8	667	34696	109360	4.25	N	N	run/o&m/run
04/27/15	31686	57	3460	113	280	873	8.2	635	34747	109370	0	N	Y	run/o&m,ted/run
05/04/15	31771	NT	NT	NT	NT	NT	NT	NT	NT	109396	0	N	N	down/o&m/run
05/05/15	31772	NT	NT	NT	NT	NT	NT	NT	34918	109396	0	N	N	down/o&m/run
05/11/15	31893	65	3560	123	283	410	3.4	660	35179	109404	0	N	N	run/o&m/run
05/18/15	32081	60	3460	127	273	262	1.5	664	35579	109480	0	N	N	run/o&m/run
05/26/15	32228	50	3380	130	265	500	1.2	663	NT	109517	0	N	Y	run/o&m,ted/run
06/01/15	32373	50	3360	143	258	740	0.7	664	NT	109556	0	N	N	run/o&m/run
06/08/15	32540	60	3485	128	275	280	0.5	663	36556	109599	0	N	N	run/o&m/run
06/16/15	32731	64	4500	125	356	187	1.1	665	36760	109656	10	N	N	run/o&m/down
06/24/15	32852	50	4500	127	355	130	0.5	663	NT	109688	0	N	N	run/o&m/run
07/06/15	32998	50	4700	130	369	150	0.4	652	NT	NT	0	N	Y	run/o&m,ted/run
07/14/15	33165	52	4500	133	352	62.4	7	656	NT	109733	3	N	N	run/o&m/run
07/21/15	33314	54	4300	128	339	68	0.9	650	NT	109814	0	N	N	run/o&m/run
07/28/15	33484	65	5000	133	391	108	2.1	650	NT	109861	0	N	Y	run/o&m,ted/run
08/07/15	33646	65	5000	130	393	69.9	5	649	NT	109899	0	N	N	run/o&m/run
08/11/15	33740	60	4700	122	374	98.1	1.2	652	39114	109924	0	N	N	run/o&m/run
08/21/15	33952	50	4200	124	333	82.2	1.6	650	NT	109954	0	N	N	run/o&m/run
09/03/15	33983	30	3900	123	310	1322	8.1	656	NT	109961	0	N	Y	run/o&m,ted/run
09/09/15	34125	45	5000	122	398	351	9.3	653	NT	109990	0	N	N	run/o&m/run
09/15/15	34271	58	5000	128	394	78	1.8	656	NT	110024	0	N	N	run/o&m/run
09/22/15	34435	40	5500	125	436	33.3	4.4	656	NT	110064	0	N	N	run/o&m/run
09/24/15	34461	40	5300	123	421	48.1	0.5	653	40658	110070	4	N	N	run/o&m/run
09/28/15	34558	50	5400	127	426	73.4	1	645	NT	110093	0	N	Y	run/o&m,ted/run
10/05/15	34727	45	5300	125	420	65.8	0.8	650	41253	110133	0	N	N	run/o&m/run

PSC: TFS-10

O&M
CLIENT NAME: CTES Job # 041300 SYSTEM READINGS
SITE LOCATION: TFS-10

SOLLECO			4" Pipe											
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Electric	LNAPL	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Reading	Bailed	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)			Gallons	Y/N	Y/N	
10/12/15	34802	58	5000	123	397	62.6	0.1	650	41712	110151	0	N	N	run/o&m/run
10/19/15	34969	50	3500	132	274	91.7	0.2	650	NT	110191	0	N	N	run/o&m/run
10/26/15	35111	40	5000	124	397	60.8	0	650	NT	110221	0	N	Y	run/o&m,ted/down
11/24/15	35278	47	4400	116	354	2200	1.7	650	NT	NT	0	N	N	run/o&m/run
12/01/15	35442	40	3200	98	265	1100	1.5	651	NT	NT	0	N	Y	run/o&m,ted/down
12/11/15	35681	35	4300	92	361	720	1.8	650	NT	NT	0	N	N	run/o&m/run
12/14/15	35730	35	4300	89	362	680	1.6	650	NT	NT	0	N	N	run/o&m/run
12/21/15	35899	40	3200	91	269	1000	1.9	653	NT	NT	0	N	N	run/o&m/run
12/28/15	36062	42	3000	90	252	440	0.3	656	NT	NT	0	N	N	run/o&m/run
01/05/16	36255	42	3000	100	248	1100	200	650	44284	NT	0	N	Y	run/o&m,ted/down

[a] Reading was taken approximately 8-inches from the original location were the first two readings were collected.
[b] Reading was taken from system display screen.
[c] New natural gas meter was installed on August 10, 2012.
Note 1: Multiple system readings were collected with initial air sparge start up and optimize air sparge system.
Note 2: Multiple system readings were collected to optimize air sparge equipment.
Note 3: System was shutdown for City of Tucson sampling event and NAPL fingerprint assessment.
Note 4: Lori Ehman with City of Tucson was on-site and informed Cardno of upcoming well test and asked Cardno to postpone LNAPL until well testing is complete.
Note 5: Bill with the City of Tucson re-started the system with dilution open and Air Sparge system off.
Note 6: Re-started Air Sparge system.
Note 7: The remediation system was shut down due to poor destruction. Inspect the catalytic plate.
Note 8: Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling. OP hours were recorded and no additional readings were collected.
Note 9: After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additoinal readings were collected.
* Pre-compliance sample event, due to sample results from 8/12/13 showing poor destruction "NOT COMPLIANCE SAMPLE".
Highlighted cells indicate vapor sampling events.

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Aug-02	228	228	4,050	592	99	592	99
Solleco 500	Sep-02	324	552	6,500	1,501	250	2,093	349
Solleco 500	Oct-02	360	912	6,100	1,174	196	3,267	545
Solleco 500	Oct-02	344	1,256	4,400	750	125	4,016	670
Solleco 500	Oct-02	145	1,402	8,650	707	118	4,724	788
Solleco 500	Nov-02	339	1,741	4,100	798	133	5,522	921
Solleco 500	Dec-02	664	2,405	1,900	762	127	6,283	1,048
Solleco 500	Jan-03	359	2,764	1,900	489	82	6,772	1,129
Solleco 500	Feb-03	1,104	3,868	2,200	1,395	233	8,167	1,362
Solleco 500	Mar-03	454	4,322	3,650	986	164	9,153	1,526
Solleco 500	Oct-04	264	4,586	337	21,985	3,575	31,138	5,101
Solleco 500	Oct-04	408	4,994	447	784	131	31,922	5,231
Solleco 500	Nov-04	384	5,378	328	979	163	32,901	5,394
Solleco 500	Dec-04	336	5,714	118	629	105	33,530	5,499
Solleco 500	Dec-04	528	6,242	272	355	59	33,885	5,558
Solleco 500	Feb-05	312	6,554	455	484	81	34,369	5,639
Solleco 500	Mar-05	1,536	8,090	557	3,987	665	38,356	6,304
Solleco 500	May-05	840	8,930	220	2,669	445	41,025	6,748
Solleco 500	Jun-05	408	9,338	378	512	85	41,537	6,834
Solleco 500	Jul-05	720	10,058	1,500	1,553	259	43,090	7,093
Solleco 500	Aug-05	768	10,826	1,500	6,572	1,095	49,662	8,188
Solleco 500	Sep-05	744	11,570	1,508	6,367	638	56,029	8,826
Solleco 500	Oct-05	672	12,242	1,612	7,156	1,193	63,185	10,018
Solleco 500	Nov-05	624	12,866	988	4,073	679	67,258	10,697
Solleco 500	Dec-05	528	13,394	1,508	5,260	877	72,518	11,574
Solleco 500	Jan-06	864	14,258	1,196	6,827	1,138	79,345	12,712
Solleco 500	Feb-06	792	15,050	936	4,897	816	84,242	13,528
Solleco 500	Mar-06	720	15,770	1,101	5,237	873	89,479	14,401
Solleco 500	Apr-06	816	16,586	1,300	7,008	1,168	96,487	15,569
Solleco 500	May-06	552	17,138	1,508	5,499	917	101,986	16,485
Solleco 500	Jun-06	840	17,978	624	3,463	577	105,449	17,062
Solleco 500	Jul-06	792	18,770	1,326	6,938	1,156	112,387	18,219
Solleco 500	Aug-06	336	19,106	1,664	3,694	616	116,081	18,834
Solleco 500	Sep-06	984	20,090	2,800	18,528	3,088	134,609	21,922
Solleco 500	Jan-07	2,472	22,562	2,500	46,546	7,758	181,154	29,680
Solleco 500	Jan-07	312	22,874	3,500	5,875	979	187,029	30,659
Solleco 500	Mar-07	2,616	25,490	3,300	49,257	8,210	236,286	38,868
Solleco 500	Aug-07	2,736	28,226	8,500	76,619	12,770	312,905	51,638
Solleco 500	Oct-07	1,032	29,258	11,000	28,900	4,817	341,806	56,455
Solleco 500	Jan-08	2,376	31,634	910	66,538	11,090	408,344	67,545
Solleco 500	Mar-08	1,392	33,026	980	38,982	6,497	447,325	74,042
Solleco 500	Jun-08	864	33,890	610	24,453	4,076	471,778	78,117
Solleco 500	Sep-08	2,112	36,002	500	7,190	1,198	478,968	79,315

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 2 of 3)

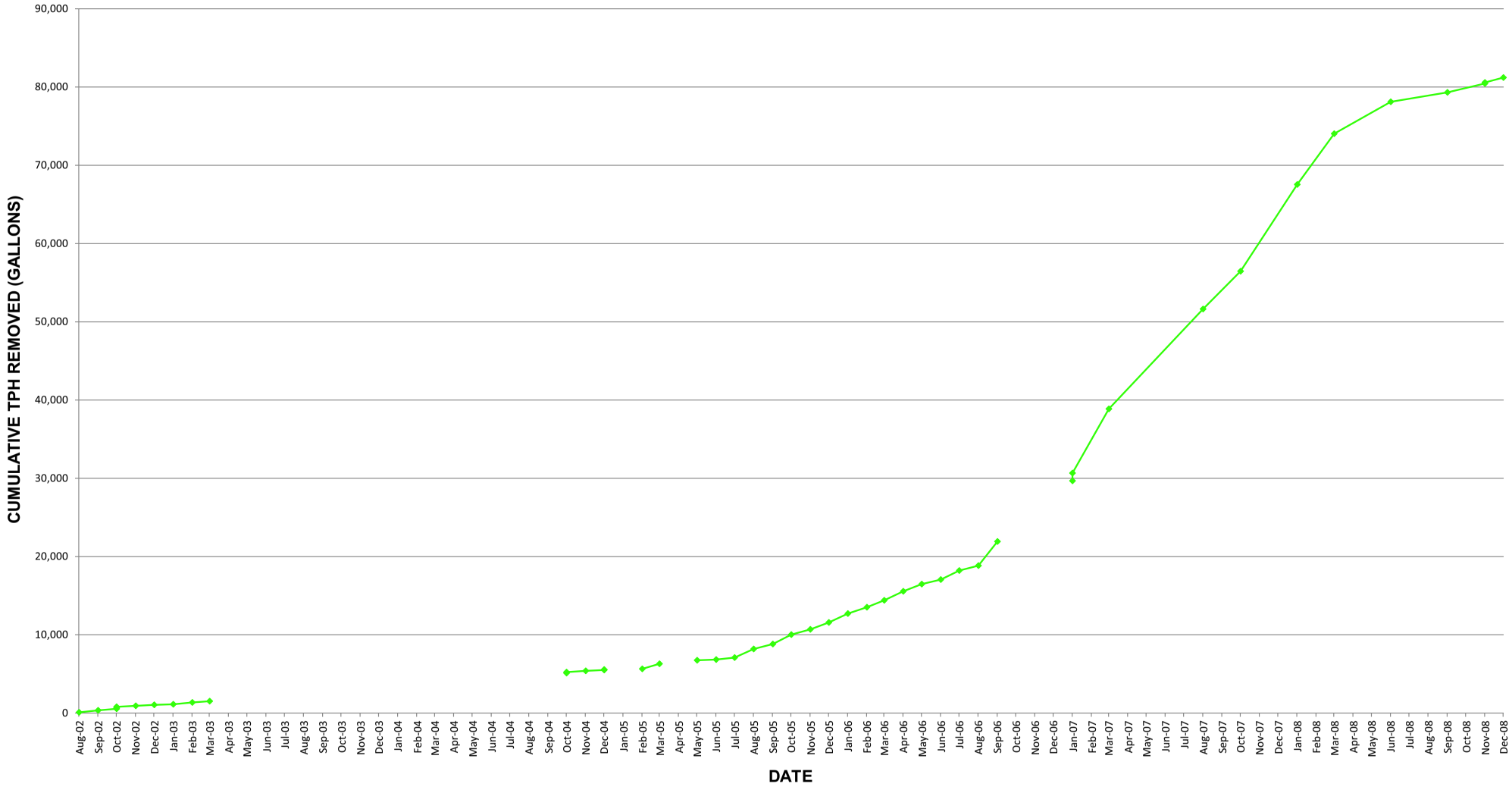
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Nov-08	1,248	37,250	800	6,798	1,133	485,766	80,448
Solleco 500	Nov-08	192	37,442	600	784	131	486,550	80,579
Solleco 500	Dec-08	816	38,258	690	3,833	639	490,383	81,218
Solleco 500	Jan-09	696	38,954	630	2,985	498	493,368	81,715
Solleco 500	Apr-09	2,624	41,578	320	5,716	953	499,084	82,668
Solleco 500	Aug-09	1,068	42,646	510	2,950	492	502,035	83,160
Solleco 500	Nov-09	2,232	44,878	560	6,166	1,028	508,201	84,187
Solleco 500	Mar-10	2,448	47,326	470	6,763	1,127	514,963	85,315
Solleco 500	Aug-10	2,712	50,038	330	7,492	1,249	522,455	86,563
Solleco 500	Nov-10	1,776	51,814	170	7,119	1,186	529,574	87,750
Solleco 500	Mar-11	2,784	54,598	207	11,159	1,860	540,733	89,610
Solleco 500	Jul-11	2,592	57,190	498	10,390	1,732	551,123	91,341
Solleco 500	Sep-11	1,680	58,870	1,160	6,734	1,122	557,857	92,464
Solleco 500	Dec-11	1,094	59,964	901	4,387	731	562,244	93,195
Solleco 500	Apr-12	96	60,060	252	77	13	562,320	93,208
Solleco 500	Apr-12	143	60,203	306	143	24	562,463	93,231
Solleco 500	May-12	524	60,727	164	262	44	562,725	93,275
Solleco 500	May-12	170	60,897	395	323	54	563,048	93,329
Solleco 500	May-12	45	60,942	251	63	11	563,111	93,339
Solleco 500	May-12	79	61,021	263	119	20	563,230	93,359
Solleco 500	May-12	192	61,213	263	288	48	563,518	93,407
Solleco 500	May-12	141	61,354	435	437	73	563,955	93,480
Solleco 500	Jun-12	144	61,498	236	173	29	564,128	93,509
Solleco 500	Jun-12	288	61,786	307	634	106	564,761	93,615
Solleco 500	Jun-12	189	61,975	347	473	79	565,234	93,693
Solleco 500	Aug-12	3,321	63,285	630	15,611	2,602	580,845	96,295
Solleco 500	Sep-12	213	63,498	810	1,263	211	582,108	96,506
Solleco 500	Sep-12	94	63,592	880	602	100	582,710	96,606
Solleco 500	Sep-12	145	63,737	900	945	158	583,655	96,764
Solleco 500	Oct-12	166	63,903	1,100	1,331	222	584,986	96,985
Solleco 500	Oct-12	166	64,069	320	393	66	585,379	97,051
Solleco 500	Oct-12	237	64,306	1,100	1,941	324	587,320	97,374
Solleco 500	Oct-12	67	64,373	730	368	61	587,688	97,436
Solleco 500	Nov-12	360	64,733	460	1,339	223	589,027	97,659
Solleco 500	Nov-12	474	65,207	440	1,281	214	590,308	97,872
Solleco 500	Dec-12	335	65,542	590	1,241	207	591,549	98,079
Solleco 500	Jan-13	476	66,018	760	1,383	231	592,932	98,310
Solleco 500	Jan-13	452	66,470	460	1,290	215	594,222	98,525
Solleco 500	Feb-13	405	66,875	370	853	142	595,075	98,667
Solleco 500	Apr-13	818	67,693	900	4,864	811	599,939	99,478
Solleco 500	Jul-13	1,248	68,941	767	4,553	759	604,492	100,236
Solleco 500	Aug-13	578	69,519	579	1,659	277	606,151	100,513
Solleco 500	Nov-13	884	70,403	891	3,783	631	609,934	101,143

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center - TFS-10
4004 South Park Avenue
Tucson, Arizona
(Page 3 of 3)

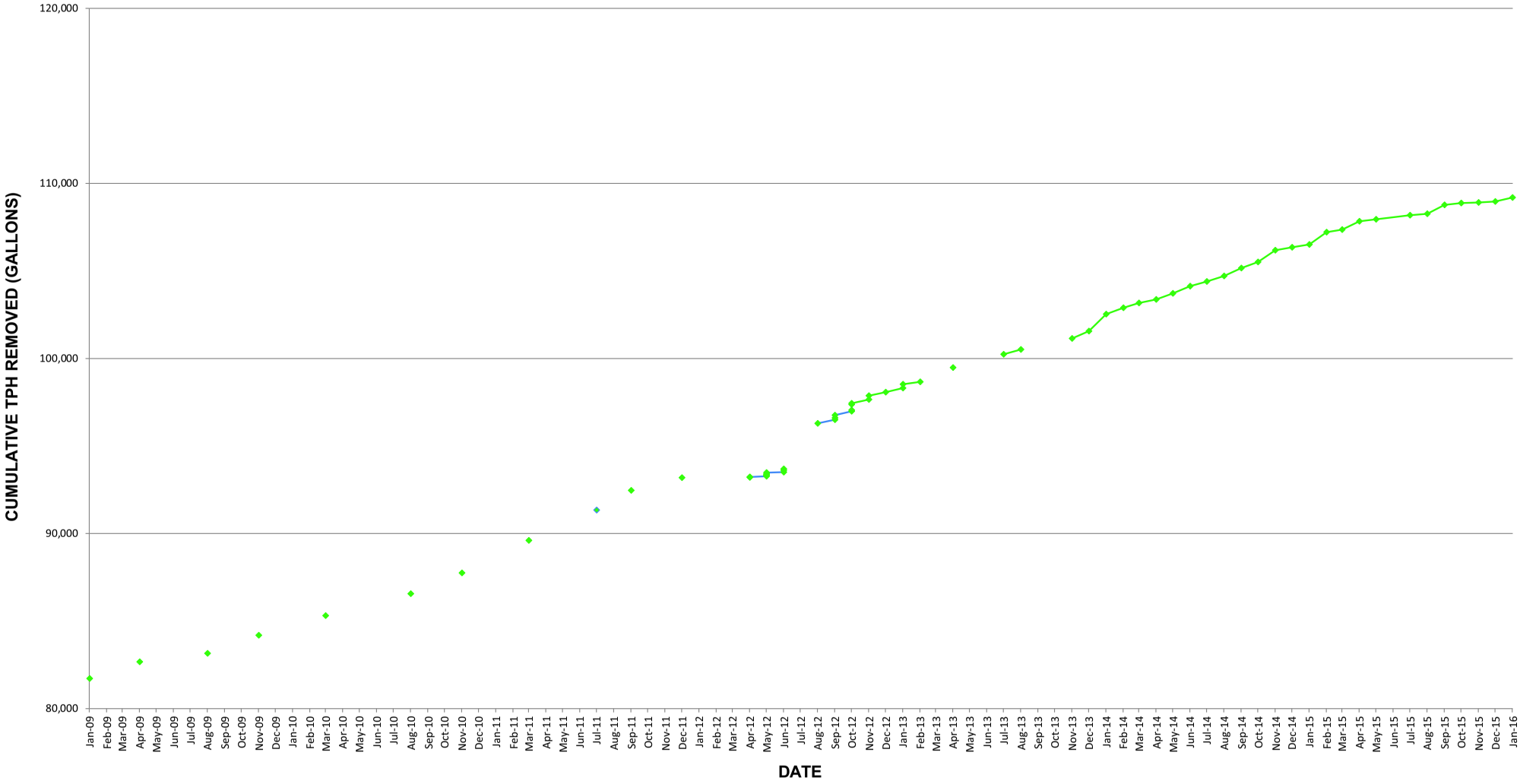
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Solleco 500	Dec-13	817	71,220	619	2,547	425	612,481	101,568
Solleco 500	Jan-14	950	72,170	1,210	5,789	965	618,270	102,533
Solleco 500	Feb-14	626	72,796	765	2,203	367	620,473	102,900
Solleco 500	Mar-14	342	73,138	1,350	1,629	272	622,102	103,171
Solleco 500	Apr-14	429	73,567	705	1,189	198	623,291	103,370
Solleco 500	May-14	722	74,289	753	2,087	348	625,378	103,717
Solleco 500	Jun-14	454	74,743	1,540	2,467	411	627,845	104,129
Solleco 500	Jul-14	717	75,460	658	1,621	270	629,466	104,399
Solleco 500	Aug-14	561	76,021	958	1,880	313	631,346	104,712
Solleco 500	Sep-14	777	76,798	965	2,739	457	634,085	105,169
Solleco 500	Oct-14	442	77,240	1,260	2,052	342	636,137	105,511
Solleco 500	Nov-14	974	78,214	1,010	4,037	673	640,174	106,183
Solleco 500	Dec-14	667	78,881	398	990	165	641,164	106,348
Solleco 500	Jan-15	690	79,571	358	1,010	168	642,174	106,516
Solleco 500	Feb-15	665	80,236	1,410	4,183	697	646,357	107,213
Solleco 500	Mar-15	595	80,831	463	895	149	647,252	107,362
Solleco 500	Apr-15	668	81,499	979	2,846	474	650,098	107,836
Solleco 500	May-15	542	82,041	298	665	111	650,763	107,947
Solleco 500	Jul-15	770	82,811	319	1,409	235	652,172	108,182
Solleco 500	Aug-15	486	83,297	162	479	80	652,651	108,262
Solleco 500	Sep-15	499	83,796	1,280	3,078	513	655,729	108,775
Solleco 500	Oct-15	575	84,371	160	609	102	656,338	108,877
Solleco 500	Nov-15	331	84,702	65.5	224	37	656,562	108,914
Solleco 500	Dec-15	542	85,244	222	303	50	656,865	108,964
Solleco 500	Jan-16	813	86,057	442	1,385	231	658,250	109,195

(1) = Soil vapor extraction (SVE) well
(2) = Air infiltration/injection well
(3) = Nested vadose zone monitoring probe
(4) = System was shutdown November 1995 and was replaced with a 500-scfm
(5) = System was started on February 13, 1996
(6) = System was shutdown January 2001 and was replaced with a Paragon ET-150
(7) = System was shutdown September 4, 2002 and was restarted on November 4, 2002
(8) = System was shutdown December 31, 2002 for rebound recovery evaluation

Remediation information reported by Hydro Geo Chem
Remediation information reported by Groundwater Technology
Remediation information reported by Fluor Daniel GTI
Remediation information reported by The IT Group
Remediation information reported by SCS Engineers
Remediation information reported by Clear Creek Associates
Remediation information reported by City of Tucson
Average influent concentration
Remediation information reported by Cardno
Mass removal estimated using PID measurements



TFS-10 HISTORICAL TPH MASS REMOVAL
(2002 THROUGH 2008)



TFS-10 HISTORICAL TPH MASS REMOVAL
(2009 THROUGH 2015)

APPENDIX H

2015 Paragon Quarterly System Performance Summary Reports,
By Cardno

Cardno
Shaping the Future

Cardno

9977 North 90th Street,
Suite 150
Scottsdale, AZ 85258
USA

Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

May 6, 2015
I052000016.Q115PSC

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Subject: **Paragon System Performance Summary**
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from January through March 2015. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

First Quarter Field Activities

- Weekly System readings and monthly well gauging and vapor monitoring.
- The remediation system has three zones (A through C) which represent remediation wells on the same trunk lines; currently there are 15 wells connected to the three remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remediation wells R-017A, R-018A, and R-019A (zone A), and air injections wells AIR-01 through AIR-04 were operating; the remaining remediation wells located in zones A, B, and C were not operating during the reporting period.
- Removed an estimated 143 pounds (approximately 24 gallons) of petroleum hydrocarbons through the SVE system during the first quarter. An estimated 7,824 pounds (approximately 1,304 gallons) of petroleum hydrocarbons has been removed since August 18, 2009. Tables 1 through 5 summarize the operations and performance of the hydrocarbon removal and remediation system.

PROPOSED FIELD ACTIVITIES

- Continue weekly system readings, NAPL bailing, and monthly well gauging and vapor monitoring.
- Continue adjusting system to optimize vapor recovery.

Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,

Justin T. Patton
Project Manager
for Cardno
Direct Line 602 909 3448
Email: justin.patton@cardno.com

Enclosures:

Figure 1	Paragon Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Appendix A	Weekly Operation and Maintenance System Readings
Appendix B	Historical TPH mass removal table and graphs

Explanation

- Soil Vapor Extraction (SVE) and Air Sweep Remedial Well
- SVE and Groundwater Monitoring Well
- Air Injection Remedial Well
- Inactive Remedial Well
- Soil Vapor Monitor Well
- Deep Groundwater Monitor Well
- Shallow Groundwater Monitor Well

SYSTEM PIPING

- Air Injection Line
- SVE Piping

SYSTEM ZONES

- ZONE A
- ZONE B
- ZONE C

0 50 100 150 200 Feet

CITY OF TUCSON
ENVIRONMENTAL SERVICES

FIGURE 1
PARAGON SITE LAYOUT AND WELL LOCATION MAP
THOMAS O. PRICE SERVICE CENTER
4004 South Park Avenue
Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

J:\GIS\PRICE\2012\PSCSYS.mxd

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	Op Hours	Operating Conditions			
		Vacuum (Inches H_2O)	VOC* (ppmv)	Flow (scfm)	Temp (Deg. F)
03/04/13[a]	6410	52	NT	107	162
06/13/13	6720	53	92	108	186
07/15/13	7464	57	66	90	190
08/12/13	7601	44	48	93	174
09/26/13	7842	51	NT	96	160
10/21/13	8439	52	262	89	161
11/07/13	8845	47	144	94	156
12/12/13	9540	54	132	83	175
01/14/14	10154	56	57	99	143
02/19/14	11013	56	56	88	160
03/27/14	11463	44	178	92	148
04/14/14	12005	48	116	92	166
05/15/14	12725	53	49	95	158
07/07/14	13277	34	114	63	156
08/06/14	13929	34	73	71	164
09/10/14	14691	35	67	81	124
10/02/14	15109	35	48	80	134
11/12/14	15973	36	44	88	121
12/15/14	16677	39	106	82	108
01/14/15	17320	43	47	78	122
02/17/15	18033	40	51	76	121
03/24/15	18494	30	39	69	136
AVERAGE		**45**	**89**	**87**	**151**

Notes:

*	=	VOC concentrations reported from PID.
NT	=	Not Taken.
[a]	=	System data results prior to 05/31/13 provided by City of Tucson.

TABLE 2
VAPOR PROCESS STREAM ANALYTICAL RESULTS
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	Time	Influent (ppmv)				
		B	T	E	X	TPH
03/04/13[a]	8:10	0.85	2.06	0.59	6.25	174
06/13/13	11:20	0.67	1.1	<0.46	4.7	180
07/15/13	11:44	0.41	0.92	0.35	3.42	135
08/12/13	10:05	0.65	1.15	0.32	5.72	143
09/26/13	9:15	0.47	0.95	0.59	5.24	143
10/21/13	9:58	0.43	0.88	0.57	4.76	132
11/07/13	11:30	0.43	0.95	0.47	5.35	168
12/12/13	12:28	<0.31	0.32	<0.23	3.04	113
01/14/14	11:27	<0.31	0.36	0.26	3.16	135
02/19/14	13:50	<0.31	0.33	<0.23	2.91	123
03/27/14	11:40	0.87	2.13	0.78	12.7	342
04/14/14	12:40	<0.31	<0.27	<0.23	2.7	100
05/15/14	12:20	<0.31	<0.36	<0.23	3.00	126
07/07/14	10:44	<0.31	<0.27	<0.23	1.97	99.0
08/06/14	12:35	<0.31	0.36	<0.23	3.12	112
09/10/14	12:18	<0.31	<0.27	<0.23	2.38	98.7
10/02/14	11:13	<0.31	<0.27	<0.23	3.34	81.2
11/12/14	11:17	<0.31	<0.27	<0.23	2.06	59.7
12/15/14	11:17	<0.31	<0.27	<0.23	2.06	59.7
01/14/15	11:45	<0.31	<0.27	<0.23	1.32	62.3
02/17/15	11:35	<0.31	0.33	0.23	4.04	97.1
03/24/15	11:30	<0.31	<0.27	<0.23	0.99	<23.3
AVERAGE		**0.41**	**0.65**	**0.34**	**3.83**	**145**

Notes:

ppmv = Part per million by volume.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
< = Below laboratory reporting limits.
[a] = Sample data results prior to 05/31/13 provided by City of Tucson.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	Flow (SCFM)	Hydrocarbon Concentration (ppmv)					Lbs TPH		Lbs Benzene		Lbs Toluene		Lbs Ethylbenzene		Lbs Total Xylenes	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/04/13[a]	107	174	0.85	2.06	0.59	6.25	0.29	6.95	1.1E-03	2.6E-02	3.1E-03	7.5E-02	1.0E-03	2.5E-02	1.1E-02	2.6E-01
06/13/13	108	180	0.67	1.1	0.46	4.7	0.30	7.25	8.8E-04	2.1E-02	1.7E-03	4.0E-02	8.2E-04	2.0E-02	8.4E-03	2.0E-01
07/15/13	90	135	0.4	0.9	0.35	3.4	0.19	4.53	4.5E-04	1.1E-02	1.2E-03	2.8E-02	5.2E-04	1.2E-02	5.1E-03	1.2E-01
08/12/13	93	143	0.7	1.2	0.32	5.7	0.21	4.96	7.3E-04	1.8E-02	1.5E-03	3.6E-02	4.9E-04	1.2E-02	8.8E-03	2.1E-01
09/26/13	96	143	0.47	0.95	0.59	5.24	0.21	5.12	5.5E-04	1.3E-02	1.3E-03	3.1E-02	9.3E-04	2.2E-02	8.3E-03	2.0E-01
10/21/13	89	132	0.43	0.88	0.57	4.76	0.18	4.38	4.6E-04	1.1E-02	1.1E-03	2.7E-02	8.4E-04	2.0E-02	7.0E-03	1.7E-01
11/07/13	94	168	0.43	0.95	0.47	5.35	0.25	5.89	4.9E-04	1.2E-02	1.3E-03	3.0E-02	7.3E-04	1.7E-02	8.3E-03	2.0E-01
12/12/13	83	113	0.31	0.32	0.23	3.04	0.15	3.50	3.1E-04	7.5E-03	3.8E-04	9.0E-03	3.1E-04	7.5E-03	4.2E-03	1.0E-01
01/14/14	99	135	0.31	0.36	0.26	3.16	0.21	4.99	3.7E-04	8.9E-03	5.0E-04	1.2E-02	4.2E-04	1.0E-02	5.2E-03	1.2E-01
02/19/14	88	123	0.31	0.33	0.23	2.91	0.17	4.04	3.3E-04	7.9E-03	4.1E-04	9.9E-03	3.3E-04	8.0E-03	4.2E-03	1.0E-01
03/27/14	92	342	0.87	2.13	0.78	12.7	0.49	11.74	9.7E-04	2.3E-02	2.8E-03	6.7E-02	1.2E-03	2.8E-02	1.9E-02	4.6E-01
04/14/14	92	100	0.31	0.27	0.23	2.7	0.14	3.43	3.5E-04	8.3E-03	3.5E-04	8.4E-03	3.5E-04	8.4E-03	4.1E-03	9.8E-02
05/15/14	95	126	0.31	0.36	0.23	3.00	0.19	4.47	3.6E-04	8.6E-03	4.8E-04	1.2E-02	3.6E-04	8.6E-03	4.7E-03	1.1E-01
07/07/14	63	99.0	0.31	0.27	0.23	1.97	0.10	2.33	2.4E-04	5.7E-03	2.4E-04	5.8E-03	2.4E-04	5.7E-03	2.0E-03	4.9E-02
08/06/14	71	112	0.31	0.36	0.23	3.12	0.12	2.97	2.7E-04	6.4E-03	3.6E-04	8.7E-03	2.7E-04	6.5E-03	3.6E-03	8.8E-02
09/10/14	81	98.7	0.31	0.27	0.23	2.38	0.12	2.98	3.0E-04	7.3E-03	3.1E-04	7.4E-03	3.1E-04	7.4E-03	3.2E-03	7.6E-02
10/02/14	80	81.2	0.31	0.27	0.23	3.34	0.10	2.42	3.0E-04	7.2E-03	3.1E-04	7.3E-03	3.0E-04	7.3E-03	4.4E-03	1.1E-01
11/12/14	88	59.7	0.31	0.27	0.23	2.06	0.08	1.96	3.3E-04	7.9E-03	3.4E-04	8.1E-03	3.3E-04	8.0E-03	3.0E-03	7.2E-02
12/15/14	82	59.7	0.31	0.27	0.23	2.06	0.08	1.83	3.1E-04	7.4E-03	3.1E-04	7.5E-03	3.1E-04	7.5E-03	2.8E-03	6.7E-02
01/14/15	78	62.3	0.31	0.27	0.23	1.32	0.08	1.81	2.9E-04	7.0E-03	3.0E-04	7.1E-03	3.0E-04	7.1E-03	1.7E-03	4.1E-02
02/17/15	76	97.1	0.31	0.33	0.23	4.04	0.11	2.75	2.9E-04	6.9E-03	3.5E-04	8.5E-03	2.9E-04	6.9E-03	5.1E-03	1.2E-01
03/24/15	69	23.3	0.31	0.27	0.23	0.99	0.02	0.60	2.6E-04	6.2E-03	2.6E-04	6.3E-03	2.6E-04	6.3E-03	1.1E-03	2.7E-02
AVERAGE	**87**	**123**	**0.41**	**0.65**	**0.34**	**3.83**	**0.17**	**4.13**	**4.5E-04**	**1.1E-02**	**8.6E-04**	**2.1E-02**	**5.0E-04**	**1.2E-02**	**5.7E-03**	**1.4E-01**

Notes:

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.

Lbs = Pounds.

< = Below minimum laboaratory reporting limits.

[a] = System data results prior to 05/31/13 provided by City of Tucson.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
03/04/13[a]	1755	**508**	**1.94**	**5.47**	**1.83**	**19.34**
06/13/13	310	**94**	**0.27**	**0.52**	**0.25**	**2.59**
07/15/13	744	**141**	**0.33**	**0.87**	**0.39**	**3.77**
08/12/13	137	**28**	**0.10**	**0.21**	**0.07**	**1.20**
09/26/13	241	**51**	**0.13**	**0.31**	**0.22**	**2.00**
10/21/13	597	**109**	**0.28**	**0.66**	**0.50**	**4.17**
11/07/13	376	**92**	**0.18**	**0.47**	**0.27**	**3.12**
12/12/13	695	**101**	**0.22**	**0.26**	**0.22**	**2.89**
01/14/14	614	**128**	**0.23**	**0.31**	**0.26**	**3.16**
02/19/14	859	**145**	**0.28**	**0.35**	**0.29**	**3.62**
03/27/14	450	**220**	**0.44**	**1.25**	**0.53**	**8.66**
04/14/14	542	**78**	**0.19**	**0.19**	**0.19**	**2.22**
05/15/14	720	**134**	**0.26**	**0.35**	**0.26**	**3.38**
07/07/14	552	**54**	**0.13**	**0.13**	**0.13**	**1.13**
08/06/14	652	**81**	**0.17**	**0.24**	**0.18**	**2.38**
09/10/14	762	**95**	**0.23**	**0.24**	**0.23**	**2.42**
10/02/14	418	**42**	**0.13**	**0.13**	**0.13**	**1.84**
11/12/14	864	**71**	**0.29**	**0.29**	**0.29**	**2.58**
12/15/14	864	**66**	**0.27**	**0.27**	**0.27**	**2.40**
01/14/15	643	**49**	**0.19**	**0.19**	**0.19**	**1.09**
02/17/15	713	**82**	**0.20**	**0.25**	**0.21**	**3.61**
03/24/15	461	**12**	**0.12**	**0.12**	**0.12**	**0.52**
TOTAL	**13,969**	**2,377**	**6.57**	**13.09**	**7.02**	**78.10**

Notes:

TPH	=	Total petroleum hydrocarbons analyzed using EPA Method 8015.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
lbs	=	Pounds.
OP Hours	=	Duration of SVE operation during period.
[a]	=	System data results prior to 05/31/13 provided by City of Tucson.

TABLE 5
CUMMULATIVE TPH MASS REMOVAL
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	Duration of SVE (Hours)	Removal				
		TPH (lbs)	TPH (gallons)	Average (lbs/hour)	TPH (Cumulative lbs)	TPH (Cumulative gallons)
2009 - 2010[ab]	7,248	862	144	0.12	862	144
2011[ab]	---	---	---	---	862	144
2012[a]	5,184	4,584	764	0.88	5,446	908
11/28/12[a] - **03/04/13**	1,755	508	85	0.29	5,954	992
05/31/13 - **06/13/13**	310	94	16	0.30	6,048	1,008
06/13/13[c] - **07/15/13**	744	141	23	0.19	6,188	1,031
07/15/13[d] - **08/12/13**	137	28	5	0.21	6,216	1,036
08/12/13 - **09/26/13**	241	51	9	0.21	6,268	1,045
09/26/13 - **10/21/13**	597	109	18	0.18	6,377	1,063
10/21/13 - **11/07/13**	376	92	15	0.25	6,469	1,078
11/07/13 - **12/12/13**	695	101	17	0.15	6,570	1,095
12/12/13 - **01/14/14**	614	128	21	0.21	6,698	1,116
01/14/14 - **02/19/14**	859	145	24	0.17	6,843	1,140
02/19/14 - **03/27/14**	450	220	37	0.49	7,063	1,177
03/27/14 - **04/14/14**	542	78	13	0.14	7,140	1,190
04/14/14 - **05/15/14**	720	134	22	0.19	7,274	1,212
05/15/14 - **07/07/14**	552	54	9	0.10	7,328	1,221
07/07/14 - **08/06/14**	652	81	14	0.12	7,409	1,235
08/06/14 - **09/10/14**	762	95	16	0.12	7,503	1,251
09/10/14 - **10/02/14**	418	42	7	0.10	7,546	1,258
10/02/14 - **11/12/14**	864	71	12	0.08	7,616	1,269
11/15/14 - **12/15/14**	864	66	11	0.08	7,682	1,280
12/15/14 - **01/14/15**	643	49	8	0.08	7,730	1,288
01/14/15 - **02/17/15**	713	82	14	0.11	7,812	1,302
02/17/15 - **03/24/15**	461	12	2	0.02	7,824	1,304
03/24/15 - **04/27/15**	789	39	7	0.05	7,863	1,310
04/27/15 - **05/26/15**	671	31	5	0.05	7,894	1,316
05/26/15 - **06/24/15**	319	9	2	0.03	7,903	1,317

Notes:

BOLD	=	Sample collection date.
lbs	=	Pounds.
gallons	=	Converted to gallons using 6 lbs = 1 gallon of TPH.
[a]	=	System data results prior to 05/31/13 provided by City of Tucson.
[b]	=	System was shutdown between September 2010 through March 2012 due to low inlet VOC concentrations.
[c]	=	System was started on 05/31/13 following shut down for retrofits and repairs.
[d]	=	System was shutdown on 07/15/13 for electrical repairs and restarted on 08/08/13.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: Paragon

O&M
CLIENT NAME: CTES Job # I052000016 SYSTEM READINGS
TE LOCATION: PSC

Paragon			3" Pipe									
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)		Y/N	Y/N	
05/31/13	6410	60	3540	153	150	75	0	NT	35681	N	N	run/o&m/run
06/06/13	6550	61	3700	165	154	57	0	712	35873	N	N	run/o&m/run
06/13/13	6720	53	2680	186	108	92	0	713	36102	N	Y	run/o&m,ted/run
06/21/13	6885	61	3250	148	139	82	0	744	36324	N	N	run/o&m/run
06/24/13	6959	60	3350	156	141	86	0	740	36425	N	N	run/o&m/run
07/01/13	7125	62	3110	147	271	74	0	747	36650	N	N	run/o&m/run
07/08/13	7294	56	2317	185	93	61	0	721	36874	N	N	run/o&m/run
07/15/13	7464	57	2242	190	90	66	0	711	37097	N	Y	run/o&m,ted/run
07/16/13	7465	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	DOWN "see note 1"
07/25/13	7465	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	DOWN "see note 1"
08/08/13	7510	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	RUN/RUN
08/12/13	7601	44	2278	174	93	48	0	707	37274	N	Y	run/o&m,ted/run
08/19/13	7630	45	2227	171	92	68	0	426	37378	N	N	run/o&m/run
09/04/13	7630	41	2193	183	89	61	0	450	37620	N	N	run/o&m/run
09/10/13	7630	42	2239	170	92	54	0	427	37710	N	N	run/o&m/run
09/17/13	7630/0 *	40	2176	172	89	58	0	434	NT	N	N	run/o&m/run
09/26/13	212	51	2297	160	96	NT	NT	751	38095	N	Y	run/o&m,ted/run
10/03/13	382	51	2180	169	90	NT	NT	707	38315	N	N	run/o&m/run
10/07/13	477	50	2099	166	87	68	0	752	38439	N	N	run/o&m/run
10/16/13	692	50	2445	156	103	123	0	720	38719	N	N	run/o&m,wells/run
10/21/13	809	52	2127	161	89	262	0	751	38870	N	Y	run/o&m,ted/run
10/30/13	1021	52	2261	138	98	167	0	750	39142	N	N	down/o&m/run
11/07/13	1215	47	2227	156	94	71	0	750	39391	N	Y	run/o&m,ted/run
11/11/13	1310	48	2242	149	96	144	0	750	39512	N	N	run/o&m,wells/down
11/19/13	1475	NT	NT	NT	NT	NT	NT	NT	NT	N	N	run/o&m/run
11/25/13	1616	46	2202	147	94	217	0	750	39878	N	N	run/o&m/run
12/02/13	1785	46	1759	195	70	106	0	753	40085	N	N	run/o&m/run
12/12/13	1910	54	2025	175	83	132	0	751	40234	N	Y	run/o&m,ted/run
12/18/13	1986	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	Down

PSC: Paragon

O&M
CLIENT NAME: CTES Job # I052000016 SYSTEM READINGS
TE LOCATION: PSC

Paragon			3" Pipe									
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)		Y/N	Y/N	
12/24/13	2075	55	2375	154	100	108	0	750	40451	N	N	run/o&m/run
01/02/14	2262	54	2308	141	100	158	0	755	40683	N	N	run/o&m/run
01/07/14	2381	56	2225	140	97	70	11	745	40833	N	N	run/o&m/run
01/14/14	2524	56	2293	143	99	57	0	741	41019	N	Y	run/o&m,ted/run
01/22/14	2709	55	2325	148	100	84	0	747	41253	N	N	run/o&m/run
01/28/14	2854	55	2240	157	95	62	0	749	41438	N	N	run/o&m/run
02/03/14	2995	55	2285	152	97	74	0	746	41616	N	N	run/o&m/run
02/10/14	3167	55	2190	159	92	93	0	749	41834	N	N	run/o&m/run
02/19/14	3383	56	2090	160	88	56	1	748	42106	N	Y	run/o&m,ted/run
02/24/14	3502	55	2155	159	91	39	0	749	42258	N	N	run/o&m/run
03/04/14	3691	58	1823	150	78	46	0	750	42493	N	N	run/o&m/run
03/12/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	N	Down for annual
03/27/14	3833	44	2150	148	92	178	0	746	42824	N	Y	run/o&m,ted/run
04/03/14	4109	47	2310	157	98	84	2	752	43035	N	N	run/o&m/run
04/07/14	4204	45	2230	163	93	91	0	750	43157	N	N	run/o&m/run
04/14/14	4375	48	2210	166	92	116	0	754	43369	N	Y	run/o&m,ted/run
04/25/14	4612	51	2300	164	96	48	0	754	43665	N	N	run/o&m/run
05/01/14	4756	54	2231	150	95	85	0	754	43845	N	N	run/o&m/run
05/07/14	4901	52	2267	159	96	71	0	755	44027	N	N	run/o&m/run
05/15/14	5095	53	2246	158	95	49	0	754	44267	N	Y	run/o&m,ted/run
05/19/14	5190	53	2292	167	95	55	0	751	44376	N	N	run/o&m/run "see note 2"
06/26/14	5386	51	2275	181	93	84	0	754	44590	N	N	run/o&m/run
07/03/14	5550	34	1620	157	68	29	0	751	44771	N	N	run/o&m/run
07/07/14	5647	34	1495	156	63	114	0	752	44879	N	Y	run/o&m,ted/run
07/14/14	5818	34	1471	162	62	46	0	750	45068	N	N	run/o&m/run
07/23/14	5961	34	1530	161	64	83	0	751	45229	N	N	run/o&m/run
07/29/14	6103	34	1650	151	70	51	0	750	45389	N	N	run/o&m/run
08/06/14	6299	34	1690	164	71	73	0	752	45609	N	Y	run/o&m,ted/run
08/14/14	6488	32	1680	158	71	140	0	750	45819	N	N	run/o&m/run

PSC: Paragon

O&M
CLIENT NAME: CTES Job # I052000016 SYSTEM READINGS
TE LOCATION: PSC

Paragon			3" Pipe									
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)		Y/N	Y/N	
08/19/14	6609	32	1630	142	71	200	0	751	45956	N	N	run/o&m/run
08/25/14	6751	33	1675	155	71	92	0	750	46116	N	N	run/o&m/down
09/02/14	6917	32	1550	158	65	50	0	753	46301	N	N	run/o&m/down
09/10/14	7061	35	1810	124	81	67	0	754	46463	N	Y	run/o&m,ted/run
09/16/14	7204	36	1770	131	78	106	0	755	46623	N	N	run/o&m/run
09/22/14	7325	36	1795	129	79	74	0	752	46759	N	N	run/o&m/down
10/02/14	7479	35	1823	134	80	48	0	750	46932	N	Y	run/o&m,ted/run
10/08/14	7621	34	2800	126	125	55	0.2	753	47093	N	N	run/o&m/run
10/17/14	7837	34	1965	124	88	92	0	752	47335	N	N	run/o&m,wells/run
10/20/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	N	DOWN
10/31/14	8052	33	1840	126	82	48	0	750	47577	N	N	run/o&m/run
11/07/14	8221	38	2025	125	90	31	0	750	47766	N	N	run/o&m/run
11/12/14	8343	36	1955	121	88	44	0	750	47906	N	Y	run/o&m,ted/run
11/17/14	8439	34	1760	130	78	51	0.2	751	48015	N	N	run/o&m/run
11/24/14	8606	35	1755	128	78	68	0	750	48204	N	N	run/o&m/run
12/03/14	8809	35	1800	133	79	53	0	750	48434	N	N	run/o&m/run
12/08/14	8892	35	1730	129	77	48	0.2	750	48530	N	N	run/o&m/run
12/15/14	9047	39	1780	108	82	106	0	752	48706	N	Y	run/o&m,ted/down
12/24/14	9234	38	1805	112	82	81	0	750	48921	N	N	run/o&m/run
12/29/14	9329	40	1620	114	74	52	0	750	49029	N	N	run/o&m/run
01/07/15	9520	39	1720	115	78	34	0	750	49250	N	N	run/o&m/run
01/14/15	9690	43	1745	122	78	47	0	751	49438	N	Y	run/o&m,ted/down
01/20/15	9812	42	1710	116	77	41	0	750	49574	N	N	run/o&m/run
01/30/15	10051	40	1730	120	78	51	0	747	49841	N	N	run/o&m/run
02/06/15	10220	40	1752	131	77	48	0	752	50031	N	Y	run/o&m,ted/down
02/12/15	10357	42	1725	121	77	34	0	751	50185	N	N	run/o&m/run
02/17/15	10403	40	1690	121	76	51	0.4	754	50237	N	Y	run/o&m,ted/down
02/26/15	10594	42	1730	126	77	66	0	752	50453	N	N	run/o&m/run
03/04/15	10605	40	1695	118	76	59	0	751	50466	N	N	run/o&m/run

PSC: Paragon

O&M
CLIENT NAME: CTES Job # I052000016 SYSTEM READINGS
TE LOCATION: PSC

Paragon			3" Pipe									
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)		Y/N	Y/N	
03/11/15	10696	NT	NT	NT	NT	NT	NT	NT	NT	N	N	"see note 3"
03/20/15	10697	NT	NT	NT	NT	NT	NT	NT	NT	N	N	"see note 4"
03/24/15	10864	30	1580	136	69	39	0.1	750	50764	N	Y	run/o&m,ted/run

Note 1:	Bill with the City of Tucson called Norman Buxton on 07/16/13 and informed him that the system was down. When Bill tried to restart
	the system it kept blowing fuses. System is down until an electrician can troubleshoot and repair fuse box.
Note 2:	The system was shutdown on 05/20/14 for system repairs.
Note 3:	Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling.
	OP hours were recorded and no additional readings were collected.
Note 4:	After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additoinal
	readings were collected.
*	OP hour meter was replaced.
	Highlighted cells indicate vapor sampling events.

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Paragon Extra-Therm 150 (4)	Apr-95	732	732	---	6,250	1,042	6,250	1,042
Paragon Extra-Therm 150 (4)	May-95	732	1,464	---	6,250	1,042	12,500	2,083
Paragon Extra-Therm 150 (4)	Jun-95	732	2,196	---	6,250	1,042	18,750	3,125
Paragon Extra-Therm 150 (4)	Jul-95	732	2,928	---	6,250	1,042	25,000	4,167
Paragon Extra-Therm 150 (4)	Aug-95	732	3,660	---	6,250	1,042	31,250	5,208
Paragon Extra-Therm 150 (4)	Sep-95	732	4,392	---	6,250	1,042	37,500	6,250
Paragon Extra-Therm 150 (4)	Oct-95	732	5,124	---	6,250	1,042	43,750	7,292
Paragon Extra-Therm 150 (4)	Nov-95	732	5,856	---	6,250	1,042	50,000	8,333
Thermal Oxidation 500-scfm (5)	Feb-96	229	6,085	3,844	4,725	788	54,725	9,121
Thermal Oxidation 500-scfm (5)	Mar-96	672	6,757	5,137	6,419	1,070	61,144	10,191
Thermal Oxidation 500-scfm (5)	Apr-96	615	7,372	4,450	9,702	1,617	70,846	11,808
Thermal Oxidation 500-scfm (5)	May-96	624	7,996	8,850	18,844	3,141	89,690	14,948
Thermal Oxidation 500-scfm (5)	Jun-96	624	8,620	10,175	17,532	2,922	107,222	17,870
Thermal Oxidation 500-scfm (5)	Jul-96	888	9,508	7,333	29,937	4,990	137,159	22,860
Thermal Oxidation 500-scfm (5)	Aug-96	304	9,812	4,220	9,213	1,536	146,372	24,395
Thermal Oxidation 500-scfm (5)	Sep-96	672	10,484	4,220	24,929	4,155	171,301	28,550
Thermal Oxidation 500-scfm (5)	Oct-96	712	11,196	6,933	41,506	6,918	212,807	35,468
Thermal Oxidation 500-scfm (5)	Nov-96	648	11,844	5,775	12,043	2,007	224,850	37,475
Thermal Oxidation 500-scfm (5)	Dec-96	519	12,363	5,039	30,403	5,067	255,253	42,542
Thermal Oxidation 500-scfm (5)	Jan-97	974	13,337	5,235	19,127	3,188	274,380	45,730
Thermal Oxidation 500-scfm (5)	Feb-97	665	14,002	8,342	28,324	4,721	302,704	50,451
Thermal Oxidation 500-scfm (5)	Mar-97	365	14,367	5,500	19,031	3,172	321,735	53,623
Thermal Oxidation 500-scfm (5)	Apr-97	670	15,037	4,940	21,624	3,604	343,359	57,227
Thermal Oxidation 500-scfm (5)	May-97	695	15,732	5,533	26,207	4,368	369,566	61,594
Thermal Oxidation 500-scfm (5)	Jun-97	864	16,596	4,350	16,413	2,736	385,979	64,330
Thermal Oxidation 500-scfm (5)	Jul-97	626	17,222	3,500	15,130	2,522	401,109	66,852
Thermal Oxidation 500-scfm (5)	Aug-97	806	18,028	3,077	15,308	2,551	416,417	69,403
Thermal Oxidation 500-scfm (5)	Sep-97	658	18,686	3,760	19,031	3,172	435,448	72,575
Thermal Oxidation 500-scfm (5)	Oct-97	668	19,354	3,321	10,893	1,816	446,341	74,390
Thermal Oxidation 500-scfm (5)	Nov-97	454	19,808	3,503	12,644	2,107	458,985	76,498
Thermal Oxidation 500-scfm (5)	Dec-97	1,000	20,808	3,050	9,449	1,575	468,434	78,072
Thermal Oxidation 500-scfm (5)	Jan-98	943	21,751	---	6,217	1,036	474,651	79,109
Thermal Oxidation 500-scfm (5)	Feb-98	456	22,207	5,190	5,518	920	480,169	80,028
Thermal Oxidation 500-scfm (5)	Mar-98	493	22,700	4,740	15,366	2,561	495,535	82,589
Thermal Oxidation 500-scfm (5)	Apr-98	823	23,523	4,967	21,699	3,617	517,234	86,206
Thermal Oxidation 500-scfm (5)	May-98	644	24,167	3,074	13,584	2,264	530,818	88,470
Thermal Oxidation 500-scfm (5)	Jun-98	286	24,453	4,070	15,923	2,654	546,741	91,124
Thermal Oxidation 500-scfm (5)	Jul-98	947	25,400	5,428	22,466	3,744	569,207	94,868
Thermal Oxidation 500-scfm (5)	Aug-98	700	26,100	3,770	12,137	2,023	581,344	96,891
Thermal Oxidation 500-scfm (5)	Sep-98	464	26,564	3,528	10,866	1,811	592,210	98,702
Thermal Oxidation 500-scfm (5)	Oct-98	662	27,226	4,194	14,938	2,490	607,148	101,191
Thermal Oxidation 500-scfm (5)	Nov-98	792	28,018	---	7,948	1,325	615,096	102,516

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

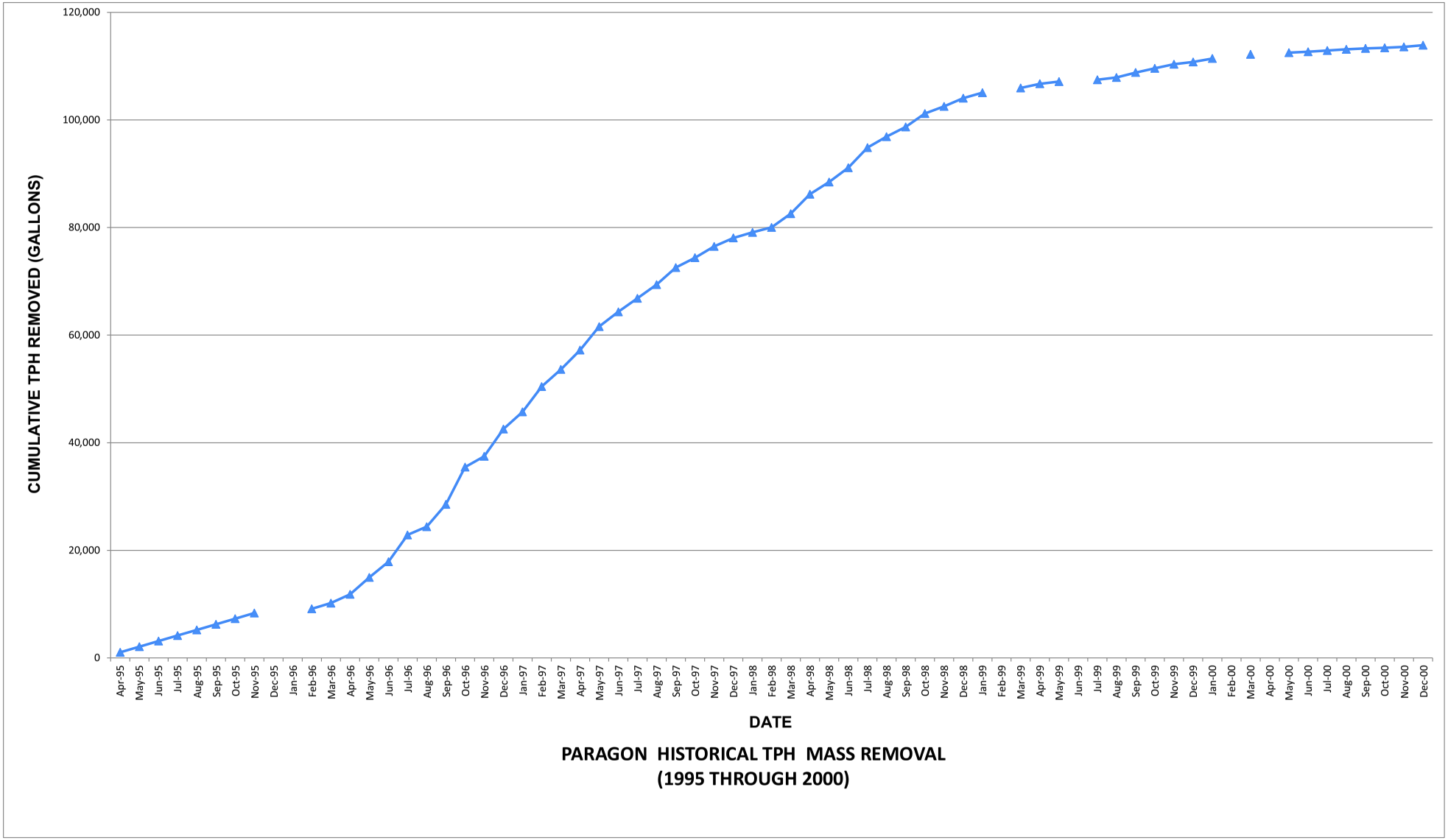
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Thermal Oxidation 500-scfm (5)	Dec-98	744	28,762	---	9,234	1,539	624,330	104,055
Thermal Oxidation 500-scfm (5)	Jan-99	599	29,361	2,260	6,089	1,015	630,419	105,070
Thermal Oxidation 500-scfm (5)	Mar-99	671	30,032	1,767	5,261	877	635,680	105,947
Thermal Oxidation 500-scfm (5)	Apr-99	843	30,875	1,202	4,659	777	640,339	106,723
Thermal Oxidation 500-scfm (5)	May-99	466	31,341	1,151	2,491	415	642,830	107,138
Thermal Oxidation 500-scfm (5)	Jul-99	567	31,908	1,030	2,053	342	644,883	107,481
Thermal Oxidation 500-scfm (5)	Aug-99	557	32,465	1,321	2,478	413	647,361	107,894
Thermal Oxidation 500-scfm (5)	Sep-99	679	33,144	1,275	5,542	924	652,903	108,817
Thermal Oxidation 500-scfm (5)	Oct-99	555	33,699	1,540	4,609	768	657,512	109,585
Thermal Oxidation 500-scfm (5)	Nov-99	645	34,344	1,253	4,615	769	662,127	110,355
Thermal Oxidation 500-scfm (5)	Dec-99	477	34,821	1,023	2,541	424	664,668	110,778
Thermal Oxidation 500-scfm (5)	Jan-00	694	35,515	819	3,850	642	668,518	111,420
Thermal Oxidation 500-scfm (5)	Mar-00	838	36,353	1,051	4,638	773	673,156	112,193
Thermal Oxidation 500-scfm (5)	May-00	670	37,023	550	1,862	310	675,018	112,503
Thermal Oxidation 500-scfm (5)	Jun-00	632	37,655	527	993	166	676,011	112,669
Thermal Oxidation 500-scfm (5)	Jul-00	336	37,991	678	1,399	233	677,410	112,902
Thermal Oxidation 500-scfm (5)	Aug-00	745	38,736	323	1,446	241	678,856	113,143
Thermal Oxidation 500-scfm (5)	Sep-00	674	39,410	257	937	156	679,793	113,299
Thermal Oxidation 500-scfm (5)	Oct-00	548	39,958	289	680	113	680,473	113,412
Thermal Oxidation 500-scfm (5)	Nov-00	697	40,655	292	1,065	178	681,538	113,590
Thermal Oxidation 500-scfm (5)	Dec-00	510	41,165	458	1,812	302	683,350	113,892
Thermal Oxidation 500-scfm (5,6)	Jan-01	538	41,703	331	631	105	683,981	113,997
Paragon ET-150 (6)	Aug-01	672	42,375	188	148	25	684,129	114,022
Paragon ET-150 (6)	Sep-01	672	43,047	367	288	48	684,417	114,070
Paragon ET-150 (6)	Oct-01	672	43,719	364	253	42	684,670	114,112
Paragon ET-150 (6)	Nov-01	672	44,391	1,809	1,253	209	685,923	114,321
Paragon ET-150 (6)	Dec-01	636	45,027	460	318	53	686,241	114,374
Paragon ET-150 (6)	Jan-02	322	45,349	528	139	23	686,380	114,397
Paragon ET-150 (6)	Feb-02	622	45,971	359	228	38	686,608	114,435
Paragon ET-150 (6)	Mar-02	1,008	46,979	455	315	53	686,923	114,487
Paragon ET-150 (6)	Apr-02	635	47,614	364	238	40	687,161	114,527
Paragon ET-150 (6)	May-02	672	48,286	364	252	42	687,413	114,569
Paragon ET-150 (6)	Jun-02	648	48,934	615	389	65	687,802	114,634
Paragon ET-150 (6)	Jul-02	1,007	49,941	536	371	62	688,173	114,696
Paragon ET-150 (6,7)	Aug-02	660	50,601	318	217	36	688,390	114,732
Paragon ET-150 (6)	Nov-02	1,027	51,628	1,034	1,042	174	689,432	114,905
Paragon ET-150 (6,8)	Dec-02	312	51,940	161	166	28	689,598	114,933
Paragon ET-150	Jul-06	1,776	53,716	161	1,709	285	691,307	115,218
Paragon ET-150	Aug-06	432	54,148	624	560	93	691,867	115,311
Paragon ET-150	Sep-06	984	55,132	280	701	117	692,568	115,428
Paragon ET-150	Jan-07	2,472	57,604	260	1,761	294	694,329	115,722
Paragon ET-150	Jan-07	312	57,916	530	222	37	694,552	115,759
Paragon ET-150	Apr-07	2,032	59,948	99	1,448	241	696,000	116,000

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

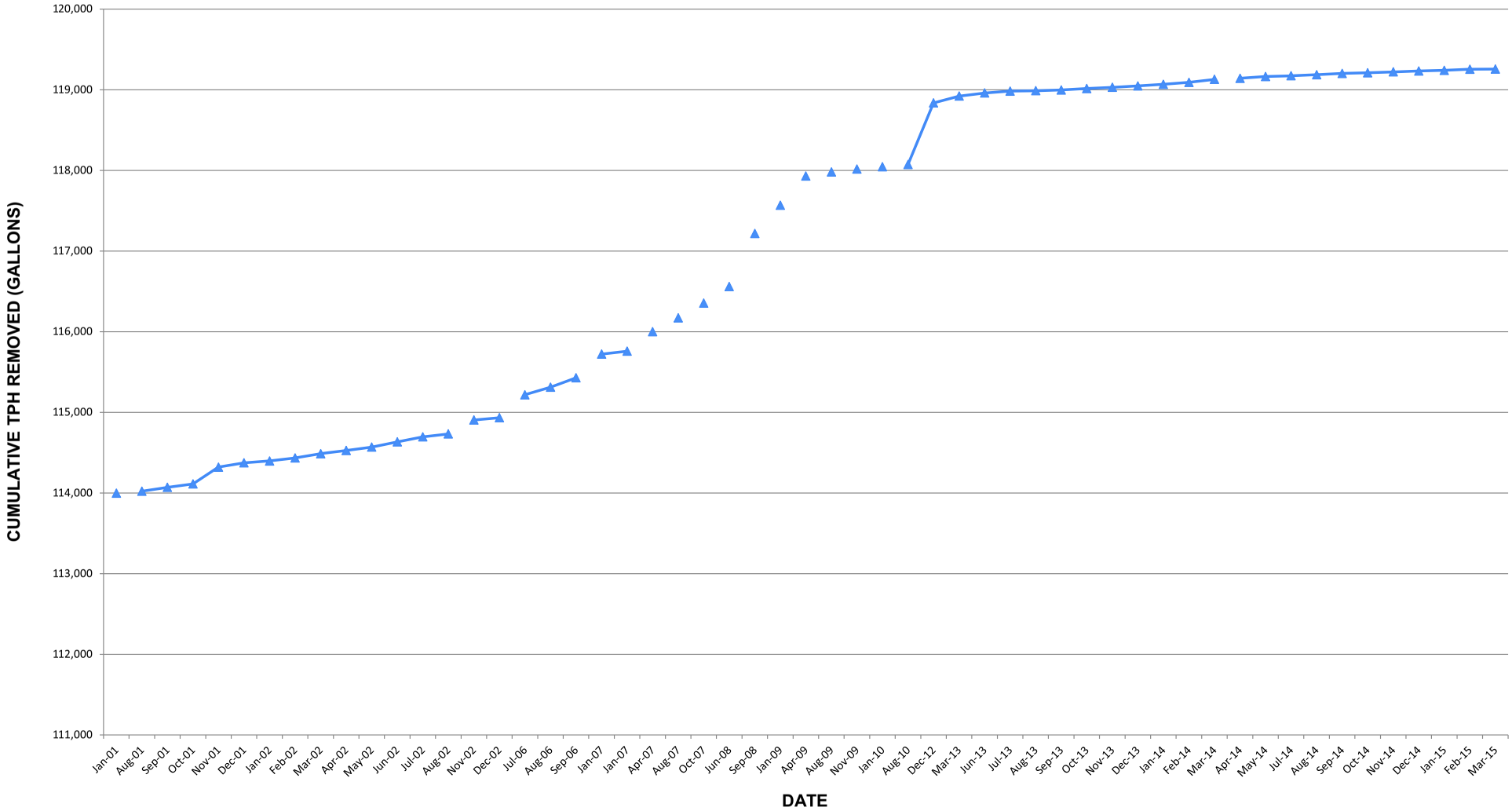
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Paragon ET-150	Aug-07	960	60,908	460	1,032	172	697,032	116,172
Paragon ET-150	Oct-07	1,032	61,940	850	1,097	183	698,128	116,355
Paragon ET-150	Jun-08	1,152	63,092	100	1,224	204	699,352	116,559
Paragon ET-150	Sep-08	2,112	65,204	91	3,952	659	703,304	117,217
Paragon ET-150	Jan-09	3,120	68,324	210	2,100	350	705,404	117,567
Paragon ET-150	Apr-09	1,407	69,731	17	2,183	364	707,587	117,931
Paragon ET-150	Aug-09	2,952	72,683	77	295	49	707,882	117,980
Paragon ET-150	Nov-09	2,232	74,915	46	223	37	708,105	118,018
Paragon ET-150	Jan-10	1,680	76,595	33	168	28	708,273	118,046
Paragon ET-150	Aug-10	1,632	78,227	34	163	27	708,437	118,073
Paragon ET-150	Dec-12	5,184	83,411	---	4,584	764	713,021	118,837
Paragon ET-150	Mar-13	1,755	85,166	174	508	85	713,529	118,921
Paragon ET-150	Jun-13	765	85,931	180	231	39	713,760	118,960
Paragon ET-150	Jul-13	744	86,675	135	141	24	713,901	118,983
Paragon ET-150	Aug-13	137	86,812	143	28	5	713,929	118,988
Paragon ET-150	Sep-13	241	87,053	143	51	8	713,980	118,997
Paragon ET-150	Oct-13	597	87,650	132	109	18	714,089	119,015
Paragon ET-150	Nov-13	406	88,056	168	92	15	714,181	119,030
Paragon ET-150	Dec-13	695	88,751	113	101	17	714,282	119,047
Paragon ET-150	Jan-14	614	89,365	135	128	21	714,410	119,068
Paragon ET-150	Feb-14	859	90,224	123	145	24	714,555	119,092
Paragon ET-150	Mar-14	450	90,674	342	220	37	714,775	119,129
Paragon ET-150	Apr-14	542	91,216	100	78	13	714,853	119,142
Paragon ET-150	May-14	720	91,936	126	134	22	714,987	119,164
Paragon ET-150	Jul-14	552	92,488	99	54	9	715,041	119,173
Paragon ET-150	Aug-14	652	93,140	112	81	14	715,122	119,187
Paragon ET-150	Sep-14	762	93,902	99	95	16	715,217	119,203
Paragon ET-150	Oct-14	418	94,320	81	42	7	715,259	119,210
Paragon ET-150	Nov-14	864	95,184	60	71	12	715,330	119,222
Paragon ET-150	Dec-14	704	95,888	41	66	11	715,396	119,233
Paragon ET-150	Jan-15	643	96,531	62	49	8	715,445	119,241
Paragon ET-150	Feb-15	713	97,244	97	82	14	715,527	119,254
Paragon ET-150	Mar-15	461	97,705	23	12	2	715,539	119,256

(1) = Soil vapor extraction (SVE) well
(2) = Air infiltration/injection well
(3) = Nested vadose zone monitoring probe
(4) = System was shutdown November 1995 and was replaced with a 500-scfm
(5) = System was started on February 13, 1996
(6) = System was shutdown January 2001 and was replaced with a Paragon ET-150
(7) = System was shutdown September 4, 2002 and was restarted on November 4, 2002
(8) = System was shutdown December 31, 2002 for rebound recovery evaluation

Remediation information reported by Hydro Geo Chem
Remediation information reported by Groundwater Technology
Remediation information reported by Fluor Daniel GTI
Remediation information reported by The IT Group
Remediation information reported by SCS Engineers
Remediation information reported by Clear Creek Associates
Remediation information reported by City of Tucson
Annual 2012 total mass removal data and remediation information provided by the City of Tucson
Average influent concentration
Remediation information reported by Cardno



PARAGON HISTORICAL TPH MASS REMOVAL
(1995 THROUGH 2000)



PARAGON HISTORICAL TPH MASS REMOVAL
(2001 THROUGH 2015)

Cardno
Shaping the Future

Cardno

9977 North 90th Street,
Suite 150
Scottsdale, AZ 85258
USA

Phone 602 977 8000
Fax 602 977 8099
www.cardno.com

August 26, 2015
I052000016.Q215PSC

Mr. Richard Byrd
City of Tucson - Environmental Services
P.O. Box 27210
Tucson, AZ 85726-7210

Subject: **Paragon System Performance Summary**
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona 85714
Facility ID: 0-005160, LUST No. 0767.01-.05

Mr. Byrd:

At the request of City of Tucson – Environmental Services (COT-ES), Cardno is submitting this remedial summary for the Air Sparge/Soil Vapor Extraction (AS/SVE) with catalytic oxidation abatement system at the above referenced Site, for activities performed by Cardno from April through June 2015. Relevant figures, tables, and appendices are attached.

SUMMARY OF FIELD ACTIVITIES

Second Quarter Field Activities

- Weekly System readings and monthly well gauging and vapor monitoring.
- The remediation system has three zones (A through C) which represent remediation wells on the same trunk lines; currently there are 15 wells connected to the three remedial zones. The wells and zones are depicted on Figure 1. During the reporting period, remediation wells R-017A, R-018A, and R-019A (zone A), and air injections wells AIR-01 through AIR-04 were operating; the remaining remediation wells located in zones A, B, and C were not operating during the reporting period.
- Removed an estimated 79 pounds (approximately 13 gallons) of petroleum hydrocarbons through the SVE system during the second quarter. An estimated 7,902 pounds (approximately 1,317 gallons) of petroleum hydrocarbons has been removed since August 18, 2009. Tables 1 through 5 summarize the operations and performance of the hydrocarbon removal and remediation system.
- Due to low inlet concentrations the SVE system was shut down on July 1, 2015. The SVE system will remain down for approximately 12 months to evaluate current site conditions.

Please feel free to call me at (602) 909-3448 or email me at justin.patton@cardno.com with any questions or comments.

Respectfully submitted,

Justin T. Patton
Project Manager
for Cardno
Direct Line 602 909 3448
Email: justin.patton@cardno.com

Enclosures:

Figure 1	Paragon Site Layout and Well Location Map
Table 1	SVE Operating Conditions Summary
Table 2	Vapor Process Stream Analytical Results
Table 3	Estimated Petroleum Hydrocarbon Mass Removal
Table 4	Total Vapor Phase Hydrocarbon Removal Between Sampling Events
Table 5	Cumulative TPH Mass Removal
Appendix A	Weekly Operation and Maintenance System Readings
Appendix B	Historical TPH mass removal table and graphs

Explanation

- Soil Vapor Extraction (SVE) and Air Sweep Remedial Well
- SVE and Groundwater Monitoring Well
- Air Injection Remedial Well
- Inactive Remedial Well
- Soil Vapor Monitor Well
- Deep Groundwater Monitor Well
- Shallow Groundwater Monitor Well

SYSTEM PIPING

- Air Injection Line
- SVE Piping

SYSTEM ZONES

- ZONE A
- ZONE B
- ZONE C

0 50 100 150 200 Feet

CITY OF TUCSON
ENVIRONMENTAL SERVICES

FIGURE 1
PARAGON SITE LAYOUT AND WELL LOCATION MAP
THOMAS O. PRICE SERVICE CENTER
4004 South Park Avenue
Tucson, Arizona

Drawn By:	LE
Checked:	RB
Approved:	NP
Date:	1/24/2014
File:	See Below

J:\GIS\PRICE\2012\PSCSYS.mxd

TABLE 1
SVE OPERATING CONDITIONS SUMMARY
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	Op Hours	Operating Conditions			
		Vacuum (Inches H_2O)	VOC* (ppmv)	Flow (scfm)	Temp (Deg. F)
03/04/13[a]	6410	52	NT	107	162
06/13/13	6720	53	92	108	186
07/15/13	7464	57	66	90	190
08/12/13	7601	44	48	93	174
09/26/13	7842	51	NT	96	160
10/21/13	8439	52	262	89	161
11/07/13	8845	47	144	94	156
12/12/13	9540	54	132	83	175
01/14/14	10154	56	57	99	143
02/19/14	11013	56	56	88	160
03/27/14	11463	44	178	92	148
04/14/14	12005	48	116	92	166
05/15/14	12725	53	49	95	158
07/07/14	13277	34	114	63	156
08/06/14	13929	34	73	71	164
09/10/14	14691	35	67	81	124
10/02/14	15109	35	48	80	134
11/12/14	15973	36	44	88	121
12/15/14	16677	39	106	82	108
01/14/15	17320	43	47	78	122
02/17/15	18033	40	51	76	121
03/24/15	18494	30	39	69	136
04/27/15	19283	30	27	75	137
05/26/15	19954	30	25	71	155
06/24/15	20273	32	18	75	140
AVERAGE		**43**	**81**	**85**	**150**

Notes:

* = VOC concentrations reported from PID.

NT = Not Taken.

[a] = System data results prior to 05/31/13 provided by City of Tucson.

TABLE 2
VAPOR PROCESS STREAM ANALYTICAL RESULTS
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	Time	Influent (ppmv)				
		B	T	E	X	TPH
03/04/13[a]	8:10	0.85	2.06	0.59	6.25	174
06/13/13	11:20	0.67	1.1	<0.46	4.7	180
07/15/13	11:44	0.41	0.92	0.35	3.42	135
08/12/13	10:05	0.65	1.15	0.32	5.72	143
09/26/13	9:15	0.47	0.95	0.59	5.24	143
10/21/13	9:58	0.43	0.88	0.57	4.76	132
11/07/13	11:30	0.43	0.95	0.47	5.35	168
12/12/13	12:28	<0.31	0.32	<0.23	3.04	113
01/14/14	11:27	<0.31	0.36	0.26	3.16	135
02/19/14	13:50	<0.31	0.33	<0.23	2.91	123
03/27/14	11:40	0.87	2.13	0.78	12.7	342
04/14/14	12:40	<0.31	<0.27	<0.23	2.7	100
05/15/14	12:20	<0.31	<0.36	<0.23	3.00	126
07/07/14	10:44	<0.31	<0.27	<0.23	1.97	99.0
08/06/14	12:35	<0.31	0.36	<0.23	3.12	112
09/10/14	12:18	<0.31	<0.27	<0.23	2.38	98.7
10/02/14	11:13	<0.31	<0.27	<0.23	3.34	81.2
11/12/14	11:17	<0.31	<0.27	<0.23	2.06	59.7
12/15/14	11:17	<0.31	<0.27	<0.23	2.06	59.7
01/14/15	11:45	<0.31	<0.27	<0.23	1.32	62.3
02/17/15	11:35	<0.31	0.33	0.23	4.04	97.1
03/24/15	11:30	<0.31	<0.27	<0.23	0.99	<23.3
04/27/15	11:30	<0.31	<0.27	<0.23	1.53	42.3
05/26/15	13:45	<0.31	<0.27	<0.23	1.16	41.6
06/24/15	13:15	<0.31	<0.27	<0.23	0.86	<23.3
AVERAGE		**0.40**	**0.61**	**0.32**	**3.51**	**145**

Notes:

ppmv = Part per million by volume.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
< = Below laboratory reporting limits.
[a] = Sample data results prior to 05/31/13 provided by City of Tucson.

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 2)

Date	Flow (SCFM)	Hydrocarbon Concentration (ppmv)					Lbs TPH		Lbs Benzene		Lbs Toluene		Lbs Ethylbenzene		Lbs Total Xylenes	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
03/04/13[a]	107	174	0.85	2.06	0.59	6.25	0.29	6.95	1.1E-03	2.6E-02	3.1E-03	7.5E-02	1.0E-03	2.5E-02	1.1E-02	2.6E-01
06/13/13	108	180	0.67	1.1	0.46	4.7	0.30	7.25	8.8E-04	2.1E-02	1.7E-03	4.0E-02	8.2E-04	2.0E-02	8.4E-03	2.0E-01
07/15/13	90	135	0.4	0.9	0.35	3.4	0.19	4.53	4.5E-04	1.1E-02	1.2E-03	2.8E-02	5.2E-04	1.2E-02	5.1E-03	1.2E-01
08/12/13	93	143	0.7	1.2	0.32	5.7	0.21	4.96	7.3E-04	1.8E-02	1.5E-03	3.6E-02	4.9E-04	1.2E-02	8.8E-03	2.1E-01
09/26/13	96	143	0.47	0.95	0.59	5.24	0.21	5.12	5.5E-04	1.3E-02	1.3E-03	3.1E-02	9.3E-04	2.2E-02	8.3E-03	2.0E-01
10/21/13	89	132	0.43	0.88	0.57	4.76	0.18	4.38	4.6E-04	1.1E-02	1.1E-03	2.7E-02	8.4E-04	2.0E-02	7.0E-03	1.7E-01
11/07/13	94	168	0.43	0.95	0.47	5.35	0.25	5.89	4.9E-04	1.2E-02	1.3E-03	3.0E-02	7.3E-04	1.7E-02	8.3E-03	2.0E-01
12/12/13	83	113	0.31	0.32	0.23	3.04	0.15	3.50	3.1E-04	7.5E-03	3.8E-04	9.0E-03	3.1E-04	7.5E-03	4.2E-03	1.0E-01
01/14/14	99	135	0.31	0.36	0.26	3.16	0.21	4.99	3.7E-04	8.9E-03	5.0E-04	1.2E-02	4.2E-04	1.0E-02	5.2E-03	1.2E-01
02/19/14	88	123	0.31	0.33	0.23	2.91	0.17	4.04	3.3E-04	7.9E-03	4.1E-04	9.9E-03	3.3E-04	8.0E-03	4.2E-03	1.0E-01
03/27/14	92	342	0.87	2.13	0.78	12.7	0.49	11.74	9.7E-04	2.3E-02	2.8E-03	6.7E-02	1.2E-03	2.8E-02	1.9E-02	4.6E-01
04/14/14	92	100	0.31	0.27	0.23	2.7	0.14	3.43	3.5E-04	8.3E-03	3.5E-04	8.4E-03	3.5E-04	8.4E-03	4.1E-03	9.8E-02
05/15/14	95	126	0.31	0.36	0.23	3.00	0.19	4.47	3.6E-04	8.6E-03	4.8E-04	1.2E-02	3.6E-04	8.6E-03	4.7E-03	1.1E-01
07/07/14	63	99.0	0.31	0.27	0.23	1.97	0.10	2.33	2.4E-04	5.7E-03	2.4E-04	5.8E-03	2.4E-04	5.7E-03	2.0E-03	4.9E-02
08/06/14	71	112	0.31	0.36	0.23	3.12	0.12	2.97	2.7E-04	6.4E-03	3.6E-04	8.7E-03	2.7E-04	6.5E-03	3.6E-03	8.8E-02
09/10/14	81	98.7	0.31	0.27	0.23	2.38	0.12	2.98	3.0E-04	7.3E-03	3.1E-04	7.4E-03	3.1E-04	7.4E-03	3.2E-03	7.6E-02
10/02/14	80	81.2	0.31	0.27	0.23	3.34	0.10	2.42	3.0E-04	7.2E-03	3.1E-04	7.3E-03	3.0E-04	7.3E-03	4.4E-03	1.1E-01
11/12/14	88	59.7	0.31	0.27	0.23	2.06	0.08	1.96	3.3E-04	7.9E-03	3.4E-04	8.1E-03	3.3E-04	8.0E-03	3.0E-03	7.2E-02
12/15/14	82	59.7	0.31	0.27	0.23	2.06	0.08	1.83	3.1E-04	7.4E-03	3.1E-04	7.5E-03	3.1E-04	7.5E-03	2.8E-03	6.7E-02
01/14/15	78	62.3	0.31	0.27	0.23	1.32	0.08	1.81	2.9E-04	7.0E-03	3.0E-04	7.1E-03	3.0E-04	7.1E-03	1.7E-03	4.1E-02
02/17/15	76	97.1	0.31	0.33	0.23	4.04	0.11	2.75	2.9E-04	6.9E-03	3.5E-04	8.5E-03	2.9E-04	6.9E-03	5.1E-03	1.2E-01
03/24/15	69	23.3	0.31	0.27	0.23	0.99	0.02	0.60	2.6E-04	6.2E-03	2.6E-04	6.3E-03	2.6E-04	6.3E-03	1.1E-03	2.7E-02
04/27/15	75	42.3	0.31	0.27	0.23	1.53	0.05	1.18	2.8E-04	6.8E-03	2.9E-04	6.9E-03	2.8E-04	6.8E-03	1.9E-03	4.5E-02
05/26/15	71	41.6	0.31	0.27	0.23	1.16	0.05	1.10	2.7E-04	6.4E-03	2.7E-04	6.5E-03	2.7E-04	6.5E-03	1.4E-03	3.3E-02

TABLE 3
ESTIMATED PETROLEUM HYDROCARBON MASS REMOVAL
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 2 of 2)

Date	Flow (SCFM)	Hydrocarbon Concentration (ppmv)					Lbs TPH		Lbs Benzene		Lbs Toluene		Lbs Ethylbenzene		Lbs Total Xylenes	
		TPH	B	T	E	X	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day	Average per Hour	Average per Day
06/24/15	75	23.3	0.31	0.27	0.23	0.86	0.03	0.65	2.8E-04	6.8E-03	2.9E-04	6.9E-03	2.8E-04	6.8E-03	1.1E-03	2.6E-02
AVERAGE	**85**	**113**	**0.40**	**0.61**	**0.32**	**3.51**	**0.16**	**3.75**	**4.3E-04**	**1.0E-02**	**7.9E-04**	**1.9E-02**	**4.7E-04**	**1.1E-02**	**5.2E-03**	**1.2E-01**

Notes:

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.

BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.

Lbs = Pounds.

< = Below minimum laboaratory reporting limits.

[a] = System data results prior to 05/31/13 provided by City of Tucson.

TABLE 4
TOTAL VAPOR PHASE HYDROCARBON REMOVAL BETWEEN SAMPLING EVENTS
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	OP Hours	TPH (lbs)	B (lbs)	T (lbs)	E (lbs)	X (lbs)
03/04/13[a]	1755	**508**	**1.94**	**5.47**	**1.83**	**19.34**
06/13/13	310	**94**	**0.27**	**0.52**	**0.25**	**2.59**
07/15/13	744	**141**	**0.33**	**0.87**	**0.39**	**3.77**
08/12/13	137	**28**	**0.10**	**0.21**	**0.07**	**1.20**
09/26/13	241	**51**	**0.13**	**0.31**	**0.22**	**2.00**
10/21/13	597	**109**	**0.28**	**0.66**	**0.50**	**4.17**
11/07/13	376	**92**	**0.18**	**0.47**	**0.27**	**3.12**
12/12/13	695	**101**	**0.22**	**0.26**	**0.22**	**2.89**
01/14/14	614	**128**	**0.23**	**0.31**	**0.26**	**3.16**
02/19/14	859	**145**	**0.28**	**0.35**	**0.29**	**3.62**
03/27/14	450	**220**	**0.44**	**1.25**	**0.53**	**8.66**
04/14/14	542	**78**	**0.19**	**0.19**	**0.19**	**2.22**
05/15/14	720	**134**	**0.26**	**0.35**	**0.26**	**3.38**
07/07/14	552	**54**	**0.13**	**0.13**	**0.13**	**1.13**
08/06/14	652	**81**	**0.17**	**0.24**	**0.18**	**2.38**
09/10/14	762	**95**	**0.23**	**0.24**	**0.23**	**2.42**
10/02/14	418	**42**	**0.13**	**0.13**	**0.13**	**1.84**
11/12/14	864	**71**	**0.29**	**0.29**	**0.29**	**2.58**
12/15/14	864	**66**	**0.27**	**0.27**	**0.27**	**2.40**
01/14/15	643	**49**	**0.19**	**0.19**	**0.19**	**1.09**
02/17/15	713	**82**	**0.20**	**0.25**	**0.21**	**3.61**
03/24/15	461	**12**	**0.12**	**0.12**	**0.12**	**0.52**
04/27/15	789	**39**	**0.22**	**0.23**	**0.22**	**1.49**
05/26/15	671	**31**	**0.18**	**0.18**	**0.18**	**0.91**
06/24/15	319	**9**	**0.09**	**0.09**	**0.09**	**0.34**
TOTAL	**15,748**	**2,456**	**7.06**	**13.59**	**7.51**	**80.84**

Notes:

TPH = Total petroleum hydrocarbons analyzed using EPA Method 8015.
BTEX = Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260.
lbs = Pounds.
OP Hours = Duration of SVE operation during period.
[a] = System data results prior to 05/31/13 provided by City of Tucson.

TABLE 5
CUMMULATIVE TPH MASS REMOVAL
Price Service Center - Paragon System
4004 South Park Avenue
Tucson, Arizona
(Page 1 of 1)

Date	Duration of SVE (Hours)	Removal				
		TPH (lbs)	TPH (gallons)	Average (lbs/hour)	TPH (Cumulative lbs)	TPH (Cumulative gallons)
2009 - 2010[ab]	7,248	862	144	0.12	862	144
2011[ab]	---	---	---	---	862	144
2012[a]	5,184	4,584	764	0.88	5,446	908
11/28/12[a] - **03/04/13**	1,755	508	85	0.29	5,954	992
05/31/13 - **06/13/13**	310	94	16	0.30	6,048	1,008
06/13/13[c] - **07/15/13**	744	141	23	0.19	6,188	1,031
07/15/13[d] - **08/12/13**	137	28	5	0.21	6,216	1,036
08/12/13 - **09/26/13**	241	51	9	0.21	6,268	1,045
09/26/13 - **10/21/13**	597	109	18	0.18	6,377	1,063
10/21/13 - **11/07/13**	376	92	15	0.25	6,469	1,078
11/07/13 - **12/12/13**	695	101	17	0.15	6,570	1,095
12/12/13 - **01/14/14**	614	128	21	0.21	6,698	1,116
01/14/14 - **02/19/14**	859	145	24	0.17	6,843	1,140
02/19/14 - **03/27/14**	450	220	37	0.49	7,063	1,177
03/27/14 - **04/14/14**	542	78	13	0.14	7,140	1,190
04/14/14 - **05/15/14**	720	134	22	0.19	7,274	1,212
05/15/14 - **07/07/14**	552	54	9	0.10	7,328	1,221
07/07/14 - **08/06/14**	652	81	14	0.12	7,409	1,235
08/06/14 - **09/10/14**	762	95	16	0.12	7,503	1,251
09/10/14 - **10/02/14**	418	42	7	0.10	7,546	1,258
10/02/14 - **11/12/14**	864	71	12	0.08	7,616	1,269
11/15/14 - **12/15/14**	864	66	11	0.08	7,682	1,280
12/15/14 - **01/14/15**	643	49	8	0.08	7,730	1,288
01/14/15 - **02/17/15**	713	82	14	0.11	7,812	1,302
02/17/15 - **03/24/15**	461	12	2	0.02	7,824	1,304
03/24/15 - **04/27/15**	789	39	7	0.05	7,863	1,310
04/27/15 - **05/26/15**	671	31	5	0.05	7,894	1,316
05/26/15 - **06/24/15**	319	9	2	0.03	7,903	1,317

Notes:

BOLD	=	Sample collection date.
lbs	=	Pounds.
gallons	=	Converted to gallons using 6 lbs = 1 gallon of TPH.
[a]	=	System data results prior to 05/31/13 provided by City of Tucson.
[b]	=	System was shutdown between September 2010 through March 2012 due to low inlet VOC concentrations.
[c]	=	System was started on 05/31/13 following shut down for retrofits and repairs.
[d]	=	System was shutdown on 07/15/13 for electrical repairs and restarted on 08/08/13.

APPENDIX A

WEEKLY OPERATION AND MAINTENANCE SYSTEM READINGS

PSC: Paragon

O&M
CLIENT NAME: CTES Job # I052000016 SYSTEM READINGS
TE LOCATION: PSC

Paragon			3" Pipe									
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)		Y/N	Y/N	
05/31/13	6410	60	3540	153	150	75	0	NT	35681	N	N	run/o&m/run
06/06/13	6550	61	3700	165	154	57	0	712	35873	N	N	run/o&m/run
06/13/13	6720	53	2680	186	108	92	0	713	36102	N	Y	run/o&m,ted/run
06/21/13	6885	61	3250	148	139	82	0	744	36324	N	N	run/o&m/run
06/24/13	6959	60	3350	156	141	86	0	740	36425	N	N	run/o&m/run
07/01/13	7125	62	3110	147	271	74	0	747	36650	N	N	run/o&m/run
07/08/13	7294	56	2317	185	93	61	0	721	36874	N	N	run/o&m/run
07/15/13	7464	57	2242	190	90	66	0	711	37097	N	Y	run/o&m,ted/run
07/16/13	7465	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	DOWN "see note 1"
07/25/13	7465	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	DOWN "see note 1"
08/08/13	7510	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	RUN/RUN
08/12/13	7601	44	2278	174	93	48	0	707	37274	N	Y	run/o&m,ted/run
08/19/13	7630	45	2227	171	92	68	0	426	37378	N	N	run/o&m/run
09/04/13	7630	41	2193	183	89	61	0	450	37620	N	N	run/o&m/run
09/10/13	7630	42	2239	170	92	54	0	427	37710	N	N	run/o&m/run
09/17/13	7630/0 *	40	2176	172	89	58	0	434	NT	N	N	run/o&m/run
09/26/13	212	51	2297	160	96	NT	NT	751	38095	N	Y	run/o&m,ted/run
10/03/13	382	51	2180	169	90	NT	NT	707	38315	N	N	run/o&m/run
10/07/13	477	50	2099	166	87	68	0	752	38439	N	N	run/o&m/run
10/16/13	692	50	2445	156	103	123	0	720	38719	N	N	run/o&m,wells/run
10/21/13	809	52	2127	161	89	262	0	751	38870	N	Y	run/o&m,ted/run
10/30/13	1021	52	2261	138	98	167	0	750	39142	N	N	down/o&m/run
11/07/13	1215	47	2227	156	94	71	0	750	39391	N	Y	run/o&m,ted/run
11/11/13	1310	48	2242	149	96	144	0	750	39512	N	N	run/o&m,wells/down
11/19/13	1475	NT	NT	NT	NT	NT	NT	NT	NT	N	N	run/o&m/run
11/25/13	1616	46	2202	147	94	217	0	750	39878	N	N	run/o&m/run
12/02/13	1785	46	1759	195	70	106	0	753	40085	N	N	run/o&m/run
12/12/13	1910	54	2025	175	83	132	0	751	40234	N	Y	run/o&m,ted/run
12/18/13	1986	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	Down

PSC: Paragon

O&M
CLIENT NAME: CTES Job # I052000016 SYSTEM READINGS
TE LOCATION: PSC

Paragon			3" Pipe									
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)		Y/N	Y/N	
12/24/13	2075	55	2375	154	100	108	0	750	40451	N	N	run/o&m/run
01/02/14	2262	54	2308	141	100	158	0	755	40683	N	N	run/o&m/run
01/07/14	2381	56	2225	140	97	70	11	745	40833	N	N	run/o&m/run
01/14/14	2524	56	2293	143	99	57	0	741	41019	N	Y	run/o&m,ted/run
01/22/14	2709	55	2325	148	100	84	0	747	41253	N	N	run/o&m/run
01/28/14	2854	55	2240	157	95	62	0	749	41438	N	N	run/o&m/run
02/03/14	2995	55	2285	152	97	74	0	746	41616	N	N	run/o&m/run
02/10/14	3167	55	2190	159	92	93	0	749	41834	N	N	run/o&m/run
02/19/14	3383	56	2090	160	88	56	1	748	42106	N	Y	run/o&m,ted/run
02/24/14	3502	55	2155	159	91	39	0	749	42258	N	N	run/o&m/run
03/04/14	3691	58	1823	150	78	46	0	750	42493	N	N	run/o&m/run
03/12/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	N	Down for annual
03/27/14	3833	44	2150	148	92	178	0	746	42824	N	Y	run/o&m,ted/run
04/03/14	4109	47	2310	157	98	84	2	752	43035	N	N	run/o&m/run
04/07/14	4204	45	2230	163	93	91	0	750	43157	N	N	run/o&m/run
04/14/14	4375	48	2210	166	92	116	0	754	43369	N	Y	run/o&m,ted/run
04/25/14	4612	51	2300	164	96	48	0	754	43665	N	N	run/o&m/run
05/01/14	4756	54	2231	150	95	85	0	754	43845	N	N	run/o&m/run
05/07/14	4901	52	2267	159	96	71	0	755	44027	N	N	run/o&m/run
05/15/14	5095	53	2246	158	95	49	0	754	44267	N	Y	run/o&m,ted/run
05/19/14	5190	53	2292	167	95	55	0	751	44376	N	N	run/o&m/run "see note 2"
06/26/14	5386	51	2275	181	93	84	0	754	44590	N	N	run/o&m/run
07/03/14	5550	34	1620	157	68	29	0	751	44771	N	N	run/o&m/run
07/07/14	5647	34	1495	156	63	114	0	752	44879	N	Y	run/o&m,ted/run
07/14/14	5818	34	1471	162	62	46	0	750	45068	N	N	run/o&m/run
07/23/14	5961	34	1530	161	64	83	0	751	45229	N	N	run/o&m/run
07/29/14	6103	34	1650	151	70	51	0	750	45389	N	N	run/o&m/run
08/06/14	6299	34	1690	164	71	73	0	752	45609	N	Y	run/o&m,ted/run
08/14/14	6488	32	1680	158	71	140	0	750	45819	N	N	run/o&m/run

PSC: Paragon

O&M
CLIENT NAME: CTES Job # I052000016 SYSTEM READINGS
TE LOCATION: PSC

Paragon			3" Pipe									
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)		Y/N	Y/N	
08/19/14	6609	32	1630	142	71	200	0	751	45956	N	N	run/o&m/run
08/25/14	6751	33	1675	155	71	92	0	750	46116	N	N	run/o&m/down
09/02/14	6917	32	1550	158	65	50	0	753	46301	N	N	run/o&m/down
09/10/14	7061	35	1810	124	81	67	0	754	46463	N	Y	run/o&m,ted/run
09/16/14	7204	36	1770	131	78	106	0	755	46623	N	N	run/o&m/run
09/22/14	7325	36	1795	129	79	74	0	752	46759	N	N	run/o&m/down
10/02/14	7479	35	1823	134	80	48	0	750	46932	N	Y	run/o&m,ted/run
10/08/14	7621	34	2800	126	125	55	0.2	753	47093	N	N	run/o&m/run
10/17/14	7837	34	1965	124	88	92	0	752	47335	N	N	run/o&m,wells/run
10/20/14	NT	NT	NT	NT	NT	NT	NT	NT	NT	N	N	DOWN
10/31/14	8052	33	1840	126	82	48	0	750	47577	N	N	run/o&m/run
11/07/14	8221	38	2025	125	90	31	0	750	47766	N	N	run/o&m/run
11/12/14	8343	36	1955	121	88	44	0	750	47906	N	Y	run/o&m,ted/run
11/17/14	8439	34	1760	130	78	51	0.2	751	48015	N	N	run/o&m/run
11/24/14	8606	35	1755	128	78	68	0	750	48204	N	N	run/o&m/run
12/03/14	8809	35	1800	133	79	53	0	750	48434	N	N	run/o&m/run
12/08/14	8892	35	1730	129	77	48	0.2	750	48530	N	N	run/o&m/run
12/15/14	9047	39	1780	108	82	106	0	752	48706	N	Y	run/o&m,ted/down
12/24/14	9234	38	1805	112	82	81	0	750	48921	N	N	run/o&m/run
12/29/14	9329	40	1620	114	74	52	0	750	49029	N	N	run/o&m/run
01/07/15	9520	39	1720	115	78	34	0	750	49250	N	N	run/o&m/run
01/14/15	9690	43	1745	122	78	47	0	751	49438	N	Y	run/o&m,ted/down
01/20/15	9812	42	1710	116	77	41	0	750	49574	N	N	run/o&m/run
01/30/15	10051	40	1730	120	78	51	0	747	49841	N	N	run/o&m/run
02/06/15	10220	40	1752	131	77	48	0	752	50031	N	Y	run/o&m,ted/down
02/12/15	10357	42	1725	121	77	34	0	751	50185	N	N	run/o&m/run
02/17/15	10403	40	1690	121	76	51	0.4	754	50237	N	Y	run/o&m,ted/down
02/26/15	10594	42	1730	126	77	66	0	752	50453	N	N	run/o&m/run
03/04/15	10605	40	1695	118	76	59	0	751	50466	N	N	run/o&m/run

PSC: Paragon

O&M
CLIENT NAME: CTES Job # I052000016 SYSTEM READINGS
TE LOCATION: PSC

Paragon			3" Pipe									
			FLOW	TEMP	SYS	INF	EFF	Inlet	Gas	Visible	TEDLARS	COMMENTS
	OP	VAC	p-tube	INF	FLOW			TEMP	Reading	Emission	TAKEN	
DATE	HOUR	(in. H2O)	(in. fpm)	(°F)	(scfm)	(ppmv)	(ppmv)	(°F)		Y/N	Y/N	
03/11/15	10696	NT	NT	NT	NT	NT	NT	NT	NT	N	N	"see note 3"
03/20/15	10697	NT	NT	NT	NT	NT	NT	NT	NT	N	N	"see note 4"
03/24/15	10864	30	1580	136	69	39	0.1	750	50764	N	Y	run/o&m,ted/run
04/01/15	11057	30	1700	141	74	67	0.3	752	50983	N	N	run/o&m/run
04/06/15	11175	32	1838	149	79	40	0.1	752	51117	N	N	run/o&m/run
04/13/15	11344	32	1650	138	72	32	0.1	750	51306	N	N	run/o&m/run
04/21/15	11537	32	1726	142	75	51	0	751	51522	N	N	run/o&m/down
04/27/15	11653	30	1710	137	75	27	0	750	51655	N	Y	run/o&m,ted/run
05/05/15	11845	30	1670	138	73	24	0	750	51871	N	N	run/o&m/run
05/11/15	11988	30	1650	139	72	25.1	0	751	52034	N	N	run/o&m/run
05/19/15	12180	30	1800	142	78	24	0	750	52249	N	N	run/o&m/run
05/26/15	12324	30	1680	155	71	25	0.6	750	52411	N	Y	run/o&m,ted/run
06/01/15	12324	NT	NT	NT	NT	NT	NT	NT	NT	N	N	DOWN
06/08/15	12402	30	1670	149	72	29	0.1	750	52497	N	N	run/o&m/run
06/16/15	12590	30	1670	125	74	6.4	0.1	758	52701	N	N	run/o&m/down
06/24/15	12643	32	1720	140	75	18.1	0.4	751	52759	N	Y	run/o&m,ted/run
07/01/15	12813	35	1680	138	73	24	0.1	751	52946	N	N	run/o&m/down

Note 1:	Bill with the City of Tucson called Norman Buxton on 07/16/13 and informed him that the system was down. When Bill tried to restart
	the system it kept blowing fuses. System is down until an electrician can troubleshoot and repair fuse box.
Note 2:	The system was shutdown on 05/20/14 for system repairs.
Note 3:	Contacted by Bill Ramber with the City of Tucson and was told that the remediation system was shutdown for annual groundwater sampling.
	OP hours were recorded and no additional readings were collected.
Note 4:	After completion of annual groundwater sampling, system was restarted by City of Tucson. OP hours were recorded and no additoinal
	readings were collected.
*	OP hour meter was replaced.
	Highlighted cells indicate vapor sampling events.

APPENDIX B

HISTORICAL TPH MASS REMOVAL TABLE AND GRAPHS

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona
(Page 1 of 3)

SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Paragon Extra-Therm 150 (4)	Apr-95	732	732	---	6,250	1,042	6,250	1,042
Paragon Extra-Therm 150 (4)	May-95	732	1,464	---	6,250	1,042	12,500	2,083
Paragon Extra-Therm 150 (4)	Jun-95	732	2,196	---	6,250	1,042	18,750	3,125
Paragon Extra-Therm 150 (4)	Jul-95	732	2,928	---	6,250	1,042	25,000	4,167
Paragon Extra-Therm 150 (4)	Aug-95	732	3,660	---	6,250	1,042	31,250	5,208
Paragon Extra-Therm 150 (4)	Sep-95	732	4,392	---	6,250	1,042	37,500	6,250
Paragon Extra-Therm 150 (4)	Oct-95	732	5,124	---	6,250	1,042	43,750	7,292
Paragon Extra-Therm 150 (4)	Nov-95	732	5,856	---	6,250	1,042	50,000	8,333
Thermal Oxidation 500-scfm (5)	Feb-96	229	6,085	3,844	4,725	788	54,725	9,121
Thermal Oxidation 500-scfm (5)	Mar-96	672	6,757	5,137	6,419	1,070	61,144	10,191
Thermal Oxidation 500-scfm (5)	Apr-96	615	7,372	4,450	9,702	1,617	70,846	11,808
Thermal Oxidation 500-scfm (5)	May-96	624	7,996	8,850	18,844	3,141	89,690	14,948
Thermal Oxidation 500-scfm (5)	Jun-96	624	8,620	10,175	17,532	2,922	107,222	17,870
Thermal Oxidation 500-scfm (5)	Jul-96	888	9,508	7,333	29,937	4,990	137,159	22,860
Thermal Oxidation 500-scfm (5)	Aug-96	304	9,812	4,220	9,213	1,536	146,372	24,395
Thermal Oxidation 500-scfm (5)	Sep-96	672	10,484	4,220	24,929	4,155	171,301	28,550
Thermal Oxidation 500-scfm (5)	Oct-96	712	11,196	6,933	41,506	6,918	212,807	35,468
Thermal Oxidation 500-scfm (5)	Nov-96	648	11,844	5,775	12,043	2,007	224,850	37,475
Thermal Oxidation 500-scfm (5)	Dec-96	519	12,363	5,039	30,403	5,067	255,253	42,542
Thermal Oxidation 500-scfm (5)	Jan-97	974	13,337	5,235	19,127	3,188	274,380	45,730
Thermal Oxidation 500-scfm (5)	Feb-97	665	14,002	8,342	28,324	4,721	302,704	50,451
Thermal Oxidation 500-scfm (5)	Mar-97	365	14,367	5,500	19,031	3,172	321,735	53,623
Thermal Oxidation 500-scfm (5)	Apr-97	670	15,037	4,940	21,624	3,604	343,359	57,227
Thermal Oxidation 500-scfm (5)	May-97	695	15,732	5,533	26,207	4,368	369,566	61,594
Thermal Oxidation 500-scfm (5)	Jun-97	864	16,596	4,350	16,413	2,736	385,979	64,330
Thermal Oxidation 500-scfm (5)	Jul-97	626	17,222	3,500	15,130	2,522	401,109	66,852
Thermal Oxidation 500-scfm (5)	Aug-97	806	18,028	3,077	15,308	2,551	416,417	69,403
Thermal Oxidation 500-scfm (5)	Sep-97	658	18,686	3,760	19,031	3,172	435,448	72,575
Thermal Oxidation 500-scfm (5)	Oct-97	668	19,354	3,321	10,893	1,816	446,341	74,390
Thermal Oxidation 500-scfm (5)	Nov-97	454	19,808	3,503	12,644	2,107	458,985	76,498
Thermal Oxidation 500-scfm (5)	Dec-97	1,000	20,808	3,050	9,449	1,575	468,434	78,072
Thermal Oxidation 500-scfm (5)	Jan-98	943	21,751	---	6,217	1,036	474,651	79,109
Thermal Oxidation 500-scfm (5)	Feb-98	456	22,207	5,190	5,518	920	480,169	80,028
Thermal Oxidation 500-scfm (5)	Mar-98	493	22,700	4,740	15,366	2,561	495,535	82,589
Thermal Oxidation 500-scfm (5)	Apr-98	823	23,523	4,967	21,699	3,617	517,234	86,206
Thermal Oxidation 500-scfm (5)	May-98	644	24,167	3,074	13,584	2,264	530,818	88,470
Thermal Oxidation 500-scfm (5)	Jun-98	286	24,453	4,070	15,923	2,654	546,741	91,124
Thermal Oxidation 500-scfm (5)	Jul-98	947	25,400	5,428	22,466	3,744	569,207	94,868
Thermal Oxidation 500-scfm (5)	Aug-98	700	26,100	3,770	12,137	2,023	581,344	96,891
Thermal Oxidation 500-scfm (5)	Sep-98	464	26,564	3,528	10,866	1,811	592,210	98,702
Thermal Oxidation 500-scfm (5)	Oct-98	662	27,226	4,194	14,938	2,490	607,148	101,191
Thermal Oxidation 500-scfm (5)	Nov-98	792	28,018	---	7,948	1,325	615,096	102,516
Thermal Oxidation 500-scfm (5)	Dec-98	744	28,762	---	9,234	1,539	624,330	104,055

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona
(Page 2 of 3)

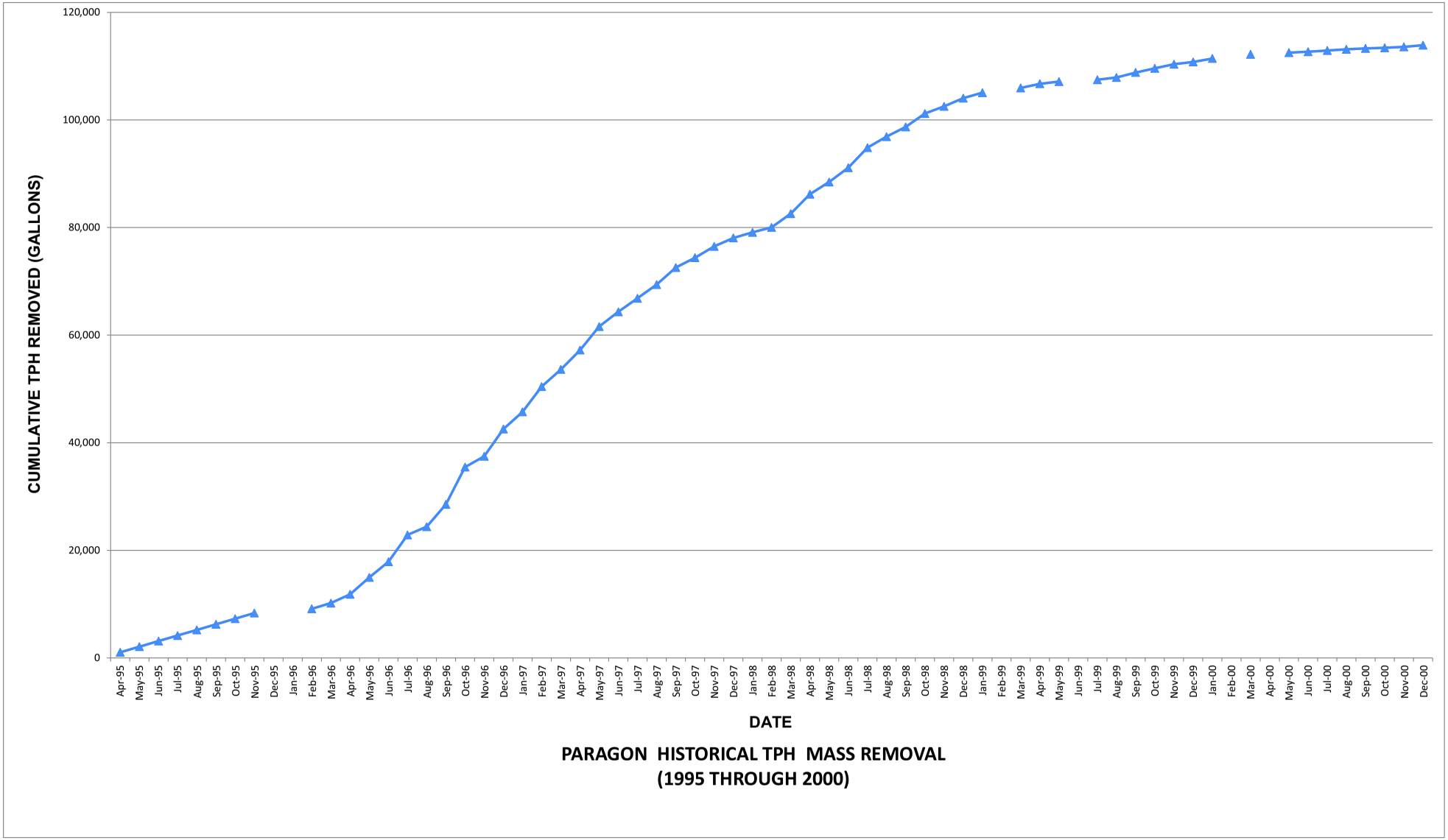
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Thermal Oxidation 500-scfm (5)	Jan-99	599	29,361	2,260	6,089	1,015	630,419	105,070
Thermal Oxidation 500-scfm (5)	Mar-99	671	30,032	1,767	5,261	877	635,680	105,947
Thermal Oxidation 500-scfm (5)	Apr-99	843	30,875	1,202	4,659	777	640,339	106,723
Thermal Oxidation 500-scfm (5)	May-99	466	31,341	1,151	2,491	415	642,830	107,138
Thermal Oxidation 500-scfm (5)	Jul-99	567	31,908	1,030	2,053	342	644,883	107,481
Thermal Oxidation 500-scfm (5)	Aug-99	557	32,465	1,321	2,478	413	647,361	107,894
Thermal Oxidation 500-scfm (5)	Sep-99	679	33,144	1,275	5,542	924	652,903	108,817
Thermal Oxidation 500-scfm (5)	Oct-99	555	33,699	1,540	4,609	768	657,512	109,585
Thermal Oxidation 500-scfm (5)	Nov-99	645	34,344	1,253	4,615	769	662,127	110,355
Thermal Oxidation 500-scfm (5)	Dec-99	477	34,821	1,023	2,541	424	664,668	110,778
Thermal Oxidation 500-scfm (5)	Jan-00	694	35,515	819	3,850	642	668,518	111,420
Thermal Oxidation 500-scfm (5)	Mar-00	838	36,353	1,051	4,638	773	673,156	112,193
Thermal Oxidation 500-scfm (5)	May-00	670	37,023	550	1,862	310	675,018	112,503
Thermal Oxidation 500-scfm (5)	Jun-00	632	37,655	527	993	166	676,011	112,669
Thermal Oxidation 500-scfm (5)	Jul-00	336	37,991	678	1,399	233	677,410	112,902
Thermal Oxidation 500-scfm (5)	Aug-00	745	38,736	323	1,446	241	678,856	113,143
Thermal Oxidation 500-scfm (5)	Sep-00	674	39,410	257	937	156	679,793	113,299
Thermal Oxidation 500-scfm (5)	Oct-00	548	39,958	289	680	113	680,473	113,412
Thermal Oxidation 500-scfm (5)	Nov-00	697	40,655	292	1,065	178	681,538	113,590
Thermal Oxidation 500-scfm (5)	Dec-00	510	41,165	458	1,812	302	683,350	113,892
Thermal Oxidation 500-scfm (5,6)	Jan-01	538	41,703	331	631	105	683,981	113,997
Paragon ET-150 (6)	Aug-01	672	42,375	188	148	25	684,129	114,022
Paragon ET-150 (6)	Sep-01	672	43,047	367	288	48	684,417	114,070
Paragon ET-150 (6)	Oct-01	672	43,719	364	253	42	684,670	114,112
Paragon ET-150 (6)	Nov-01	672	44,391	1,809	1,253	209	685,923	114,321
Paragon ET-150 (6)	Dec-01	636	45,027	460	318	53	686,241	114,374
Paragon ET-150 (6)	Jan-02	322	45,349	528	139	23	686,380	114,397
Paragon ET-150 (6)	Feb-02	622	45,971	359	228	38	686,608	114,435
Paragon ET-150 (6)	Mar-02	1,008	46,979	455	315	53	686,923	114,487
Paragon ET-150 (6)	Apr-02	635	47,614	364	238	40	687,161	114,527
Paragon ET-150 (6)	May-02	672	48,286	364	252	42	687,413	114,569
Paragon ET-150 (6)	Jun-02	648	48,934	615	389	65	687,802	114,634
Paragon ET-150 (6)	Jul-02	1,007	49,941	536	371	62	688,173	114,696
Paragon ET-150 (6,7)	Aug-02	660	50,601	318	217	36	688,390	114,732
Paragon ET-150 (6)	Nov-02	1,027	51,628	1,034	1,042	174	689,432	114,905
Paragon ET-150 (6,8)	Dec-02	312	51,940	161	166	28	689,598	114,933
Paragon ET-150	Jul-06	1,776	53,716	161	1,709	285	691,307	115,218
Paragon ET-150	Aug-06	432	54,148	624	560	93	691,867	115,311
Paragon ET-150	Sep-06	984	55,132	280	701	117	692,568	115,428
Paragon ET-150	Jan-07	2,472	57,604	260	1,761	294	694,329	115,722
Paragon ET-150	Jan-07	312	57,916	530	222	37	694,552	115,759
Paragon ET-150	Apr-07	2,032	59,948	99	1,448	241	696,000	116,000
Paragon ET-150	Aug-07	960	60,908	460	1,032	172	697,032	116,172
Paragon ET-150	Oct-07	1,032	61,940	850	1,097	183	698,128	116,355

APPENDIX B
HISTORICAL TPH MASS REMOVAL
Thomas O. Price Service Center
4004 South Park Avenue, Tucson, Arizona
(Page 3 of 3)

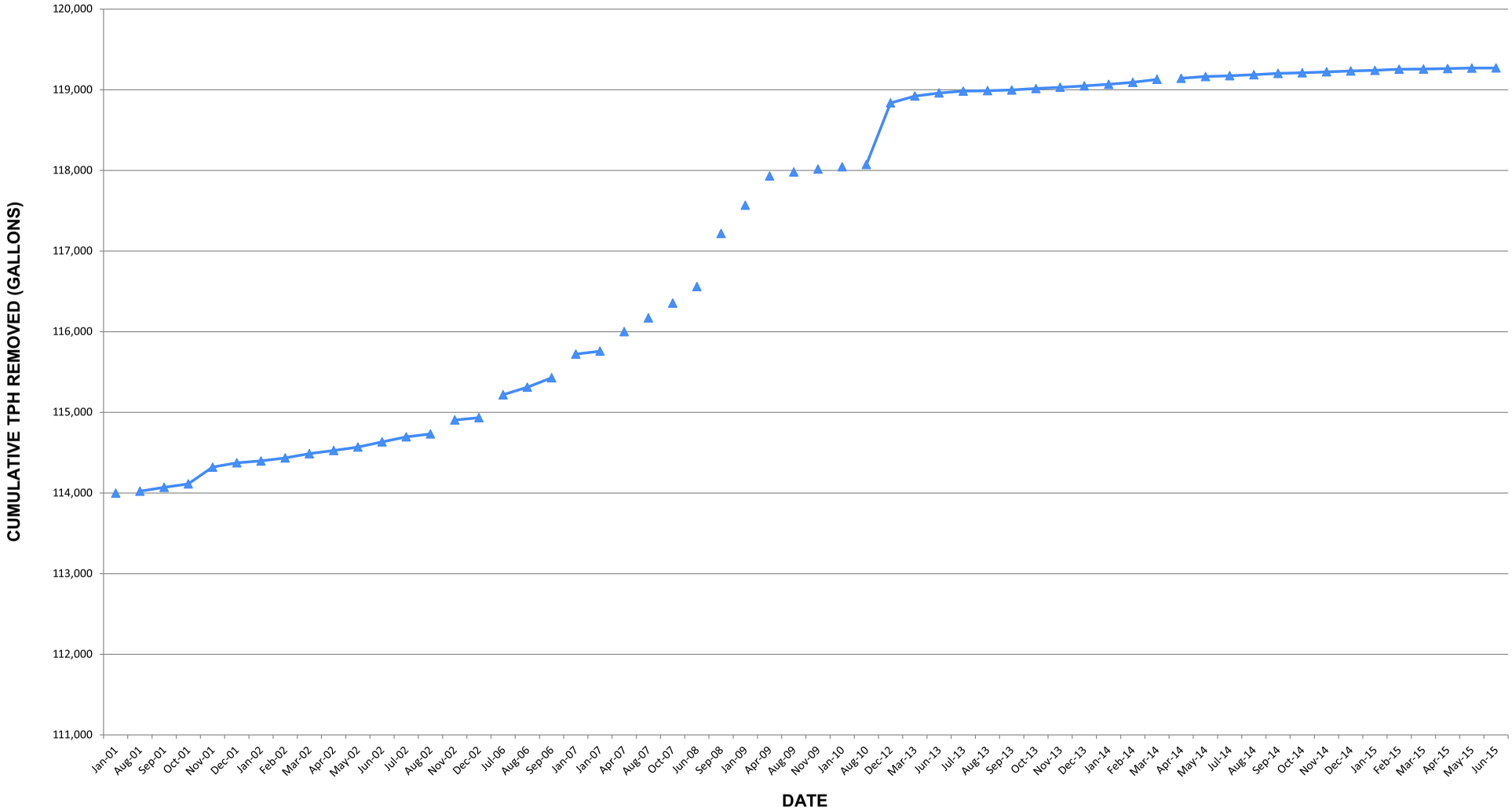
SVE SYSTEM (TYP)	OPERATING PERIOD	OPERATING HOURS	TOTAL OPERATING HOURS	TPH (PPMV)	TPH REMOVAL (LBS)	TPH REMOVAL (GALLONS)	CUMULATIVE TPH (LBS)	CUMULATIVE TPH (GALLONS)
Paragon ET-150	Jun-08	1,152	63,092	100	1,224	204	699,352	116,559
Paragon ET-150	Sep-08	2,112	65,204	91	3,952	659	703,304	117,217
Paragon ET-150	Jan-09	3,120	68,324	210	2,100	350	705,404	117,567
Paragon ET-150	Apr-09	1,407	69,731	17	2,183	364	707,587	117,931
Paragon ET-150	Aug-09	2,952	72,683	77	295	49	707,882	117,980
Paragon ET-150	Nov-09	2,232	74,915	46	223	37	708,105	118,018
Paragon ET-150	Jan-10	1,680	76,595	33	168	28	708,273	118,046
Paragon ET-150	Aug-10	1,632	78,227	34	163	27	708,437	118,073
Paragon ET-150	Dec-12	5,184	83,411	---	4,584	764	713,021	118,837
Paragon ET-150	Mar-13	1,755	85,166	174	508	85	713,529	118,921
Paragon ET-150	Jun-13	765	85,931	180	231	39	713,760	118,960
Paragon ET-150	Jul-13	744	86,675	135	141	24	713,901	118,983
Paragon ET-150	Aug-13	137	86,812	143	28	5	713,929	118,988
Paragon ET-150	Sep-13	241	87,053	143	51	8	713,980	118,997
Paragon ET-150	Oct-13	597	87,650	132	109	18	714,089	119,015
Paragon ET-150	Nov-13	406	88,056	168	92	15	714,181	119,030
Paragon ET-150	Dec-13	695	88,751	113	101	17	714,282	119,047
Paragon ET-150	Jan-14	614	89,365	135	128	21	714,410	119,068
Paragon ET-150	Feb-14	859	90,224	123	145	24	714,555	119,092
Paragon ET-150	Mar-14	450	90,674	342	220	37	714,775	119,129
Paragon ET-150	Apr-14	542	91,216	100	78	13	714,853	119,142
Paragon ET-150	May-14	720	91,936	126	134	22	714,987	119,164
Paragon ET-150	Jul-14	552	92,488	99	54	9	715,041	119,173
Paragon ET-150	Aug-14	652	93,140	112	81	14	715,122	119,187
Paragon ET-150	Sep-14	762	93,902	99	95	16	715,217	119,203
Paragon ET-150	Oct-14	418	94,320	81	42	7	715,259	119,210
Paragon ET-150	Nov-14	864	95,184	60	71	12	715,330	119,222
Paragon ET-150	Dec-14	704	95,888	41	66	11	715,396	119,233
Paragon ET-150	Jan-15	643	96,531	62	49	8	715,445	119,241
Paragon ET-150	Feb-15	713	97,244	97	82	14	715,527	119,254
Paragon ET-150	Mar-15	461	97,705	23	12	2	715,539	119,256
Paragon ET-150	Apr-15	789	98,494	42	39	7	715,578	119,263
Paragon ET-150	May-15	671	99,165	42	31	5	715,609	119,268
Paragon ET-150	Jun-15	319	99,484	23	9	2	715,618	119,270

(1) = Soil vapor extraction (SVE) well
(2) = Air infiltration/injection well
(3) = Nested vadose zone monitoring probe
(4) = System was shutdown November 1995 and was replaced with a 500-scfm
(5) = System was started on February 13, 1996
(6) = System was shutdown January 2001 and was replaced with a Paragon ET-150
(7) = System was shutdown September 4, 2002 and was restarted on November 4, 2002
(8) = System was shutdown December 31, 2002 for rebound recovery evaluation

Remediation information reported by Hydro Geo Chem
Remediation information reported by Groundwater Technology
Remediation information reported by Fluor Daniel GTI
Remediation information reported by The IT Group
Remediation information reported by SCS Engineers
Remediation information reported by Clear Creek Associates
Remediation information reported by City of Tucson
Annual 2012 total mass removal data and remediation information provided by the City of Tucson
Average influent concentration
Remediation information reported by Cardno



PARAGON HISTORICAL TPH MASS REMOVAL
(1995 THROUGH 2000)



PARAGON HISTORICAL TPH MASS REMOVAL
(2001 THROUGH 2015)