

**Brittany Frost**Project Manager
Marketing Business Unit

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RECEIVED

By Alameda County Environmental Health 2:57 pm, May 10, 2017

Ms. Karel Detterman Alameda County Environmental Health (ACEH) 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Re: Former Tidewater Service Station 373378

7600 MacArthur Boulevard Oakland, California

I have reviewed the attached First Quarter 2017 Groundwater Monitoring and Sampling Report.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by GHD Services, Inc., upon who assistance and advice I have relied.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Brittany Frost Project Manager

Attachment: First Quarter 2017 Groundwater Monitoring and Sampling Report



May 10, 2017 Reference No. 062164

Ms. Karel Detterman Alameda County Environmental Health 1131 Harbor Bay Parkway Oakland, California 94502

Re: First Quarter 2017 Monitoring and Sampling Report Former Tidewater Service Station Phillip 66 Site 5677/Chevron Site 373378 7600 MacArthur Boulevard Oakland, California ACEH Fuel Leak Case No. RO3087

Dear Ms. Detterman:

GHD is submitting this *First Quarter 2017 Monitoring and Sampling Report* for the site referenced above on behalf of Chevron Environmental Management Company (Chevron) and Phillips 66 Company (Phillips 66). This report was prepared in accordance with the Alameda County Department of Environmental Health's (ACEH) Technical Report Request Letter dated July 19, 2016 (Attachment A). Site background information, current quarter monitoring results, and anticipated future activities are discussed below.

#### 1. Site Background

#### Site Description

The site is located at 7600 MacArthur Boulevard in Oakland, California (Figure 1), and is currently occupied by a tenant and is being used to store and repair automobiles. As such, any potential impacts associated with the current site activities are the responsibility of the current owner. Based on information provided by ACEH, Phillips Petroleum Company owned the property from 1966 through 1973. Since then, the site has had several owners, but has not undergone any major redevelopment. Former site features included at least one 1,000-gallon underground storage tank (UST), one 300-gallon UST, a dispenser island, and a station building with two hydraulic lifts. Approximate locations of the former service station building and USTs are shown on Figure 2. The site is bordered by private residences to the northeast and southeast. Commercial businesses are located southwest beyond MacArthur Boulevard and a vacant lot is located northwest across 76<sup>th</sup> Avenue.

#### Site Geology and Hydrogeology

The site is relatively flat lying, slightly sloping to the west southwest toward San Francisco Bay at an approximate elevation of 92 feet above mean sea level. Based on the San Francisco San Jose



Quadrangle geologic map from the California Department of Conservation, the site is underlain by sand and quaternary alluvium, which is further underlain by marine sandstone, greenstone, shale, conglomerate, and chert of the Mesozoic Franciscan Complex.

Soil encountered beneath the site during investigation consists primarily of clay with varying percentages of sand and gravel. Groundwater was encountered at approximately 33 to 34 feet below grade (fbg). The regional groundwater flow in the vicinity of the site is assumed to be towards the west southwest, in the direction of the San Francisco Bay, and generally following the natural topographic relief of the area (Figure 1).

The site is located in the East Bay Plain groundwater basin according to the San Francisco Bay Regional Water Quality Control Board's Basin Plan. Groundwater in this basin is designated beneficial for municipal and domestic water supply and industrial process, service water, and agricultural water supply. The nearest surface water body is Arroyo Viejo Creek, which flows generally southwest to the Oakland Inner Harbor and is located approximately 0.4-mile southwest of the site.

#### Previous Environmental Work

In January 2007, one 1,000-gallon UST located onsite and one 300-gallon UST located beneath the sidewalk adjacent to MacArthur Boulevard were removed. Both tanks had been previously abandoned and filled with concrete during the 1970s. During removal of the USTs, soil samples P1, P2, and ST1 were collected beneath the former USTs. In September 2007, Golden Gate Tank Removal oversaw the advancement of soil borings B-1 through B-4 to depths ranging from 9 to 13 fbg.

Total petroleum hydrocarbons as gasoline (TPHg) was detected in soil only from boring B-4 at concentrations up to 500 milligrams per kilogram (mg/kg) beneath the former 300-gallon UST, but the chromatogram pattern was atypical for TPHg. TPH as diesel (TPHd) was detected in soil samples from P2, B-3, and B-4, but the chromatogram pattern did not resemble TPHd. TPH as motor oil (TPHmo) was detected in B-3 at concentrations up to 4,500 mg/kg, and total oil and grease (TOG) was detected in samples P1, P2, and ST1 collected beneath the USTs at concentrations between 55 to 300 mg/kg. No other hydrocarbon constituents were detected.

Between September 30, 2014 and October 8, 2014, GHD (formerly CRA) installed monitoring wells MW-1 through MW-3 and advanced soil borings BH-1 through BH-7 across the site to evaluate petroleum hydrocarbons in soil and groundwater, and advanced seven hand augered soil borings to evaluate conductive anomalies identified during a geophysical survey conducted in April 2014.

No TPHd, TPHg, VOCs, PAHs, fuel oxygenates, lead scavengers, or metals were detected in soil exceeding State Water Resources Control Board Low-Threat Closure Policy (SWRCB LTCP) levels or San Francisco Bay Regional Water Quality Control Board Environmental Screening levels (RWQCB ESLs) with the exception of the following:

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- Benzo(a)pyrene in MW-3 at 5 fbg at a concentration of 0.039 mg/kg slightly exceeding the RWQCB ESL of 0.038 mg/kg, but was below the SWRCB LTCP of 0.063 mg/kg.
- Vanadium detected in BH-5 at 20 fbg at a concentration of 782 mg/kg, which is twice the screening level of 390 mg/kg. Concentrations of vanadium in soil above and below 20 fbg in BH-5 were below the screening level.

No TPHd, TPHg, VOCs, PAHs, fuel oxygenates, lead scavengers, or metals were detected in groundwater exceeding RWQCB ESLs with the exception of the following:

- TPHd in borings BH-4 and MW-1 at 620 and 290 µg/L, respectively.
- TPHg in boring MW-1 at 480 µg/L.
- Carbon Tetrachloride in boring BH-1 at 1 μg/L.

Advancement of seven hand auger borings where magnetic anomalies were noted confirmed no additional USTs are present at the property.

#### 2. Results of First Quarter 2017 Monitoring Event

On February 16, 2017, G-R monitored and sampled site wells MW-1 through MW-3. Well development and sampling were completed pursuant to the ACEH directive letter dated July 19, 2016.

During the first quarter 2017 event, depth to groundwater in site wells were approximately 11 feet below the top of the well casings. The groundwater flow direction was southwest at a gradient of 0.05 (Figure 2). Current and historical groundwater flow direction and gradient data are presented in Table 1. G-R's *Well Development, and Groundwater Monitoring and Sampling Data Packages* are included as Attachment B. Current and historic groundwater monitoring and sampling data are presented in Tables 1 through 3. Eurofins Lancaster Laboratory Environmental, LLCs' *Analytical Results* report is included as Attachment C.

Groundwater samples were analyzed for the site's constituents of concern (COCs). TPHd, TPHg, benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) results are summarized below in Table A.

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Table A: Groundwater Analytical Data Summary

Well ID ESLs	TPHd μg/L 100	TPHg μg/L 100	Benzene μg/L 1	Toluene μg/L 40	Ethylbenzene μg/L 13	Total Xylenes μg/L 20	MTBE μg/L 5
MW-1	<110	70 J	<1	<1	0.5 J	<1	<1
MW-2	57 J	<100	<1	<1	<1	<1	<1
MW-3	<110	<100	<1	<1	<1	<1	<1

μg/L Micrograms per liter

Indicates constituent was not detected at or above laboratory reporting limit

NA Not analyzed
J Estimated value

Data in bold represent concentrations that exceed applicable ESL (Environmental Screening Levels).

Results of the initial groundwater sampling this quarter indicate the following:

No COC was detected above ESLs in any of the wells sampled.

TPHd, TPHg, and BTEX analytical data are presented on Figure 2. Groundwater concentration and elevation graphs are presented in Attachment D.

Current groundwater analytical results indicate minimal petroleum impact, consistent with historical data. Continued quarterly monitoring will determine whether this trend continues.

#### 3. Investigation Derived Waste

Purge water generated during well development and sampling activities was stored in a DOT-approved tote and then transported by G-R to their facility in Dublin, CA for temporary storage. The purge water will be transported to a Chevron-approved facility for disposal. Documentation of disposal activities for the fourth quarter sampling event are provided in Attachment E. Documentation for first quarter 2017 disposal activities will be provided in the second quarter 2017 groundwater monitoring report.

#### 4. Anticipated Future Activities

The following activities are anticipated at the site during second quarter 2017:

ACEH has requested quarterly monitoring for four continuous quarters to determine groundwater conditions at the site. The next sampling event will occur during the second quarter 2017 and includes sampling of wells MW-1 through MW-3. This will be the last of four continuous quarters of sampling.

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Provided groundwater concentration trends continue, a low-threat closure request will be submitted following completion of the second quarter sampling activities.

We appreciate the opportunity to work with you on this project. Should you have any questions on the above, please do not hesitate to contact Matthew Davis at (253) 302-8281.

Sincerely,

**GHD** 

Matthew Davis

Greg Barclay PG 6260

GREG BARCLA

MD/tl/8 Encl.

Figure 1 Vicinity Map

Figure 2 Groundwater Elevation Contour and Hydrocarbon Map

Table 1 Cumulative Groundwater Elevation and Analytical Data

Table 2 Historical PAH Data
Table 3 Historical Metals Data

Attachment A Agency Correspondence

Attachment B G-R Well Development and Monitoring Data Sheets

Attachment C Lancaster Analytical Reports

Attachment D Groundwater Elevation and Concentration Graphs

Attachment E Purge Water Disposal Documentation

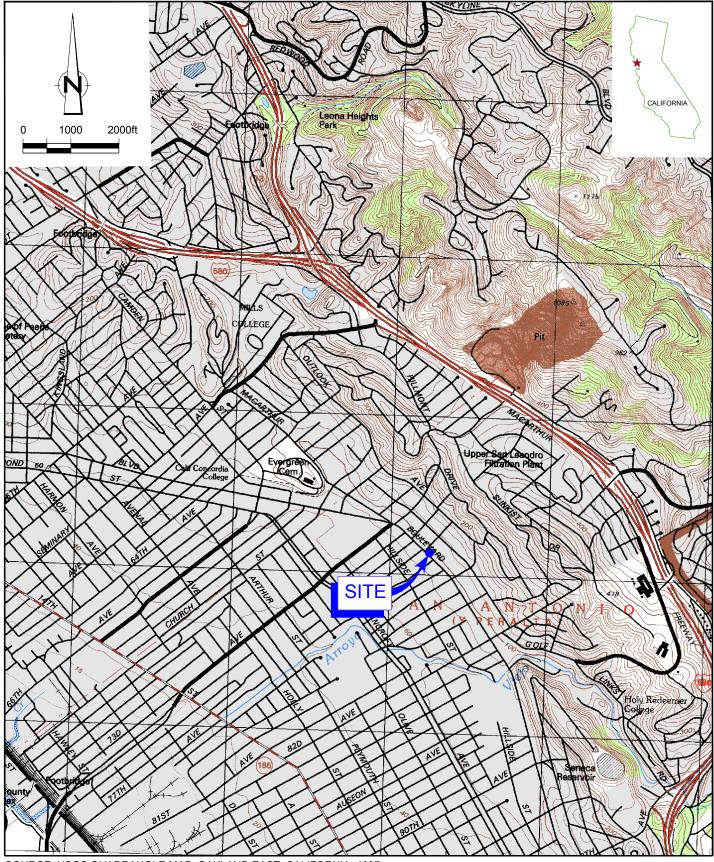
cc: Ms. Brittany Frost, Chevron (*electronic copy*)

Mr. Ed Ralston, Phillips 66 (electronic copy)

Ms. Hong Gardner, Hong Gardner Trust (electronic copy)

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### Figures



SOURCE: USGS QUADRANGLE MAP; OAKLAND EAST, CALIFORNIA, 1997.



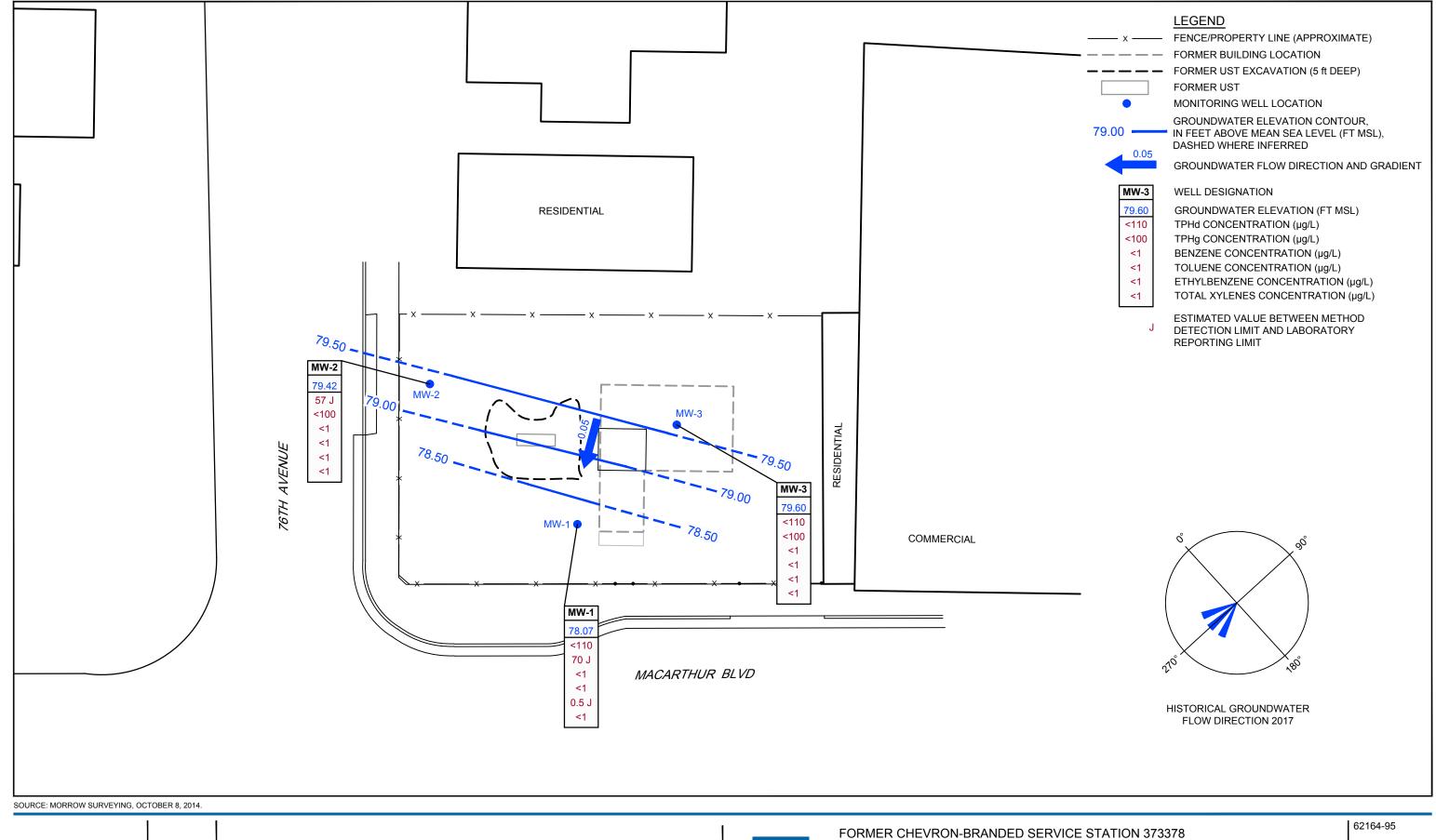
FORMER CHEVRON-BRANDED SERVICE STATION 373378 7600 MACARTHUR BLVD OAKLAND, CALIFORNIA

Mar 14, 2017

62164-95

**VICINITY MAP** 

FIGURE 1





7600 MACARTHUR BLVD OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR AND HYDROCARBON CONCENTRATION MAP - FEBRUARY 16, 2017

May 1, 2017

FIGURE 2

### Tables

Table 1

#### Cumulative Groundwater Elevation and Analytical Data Former Tidewater Service Station Phillips 66 Site 5677 Chevron Site 373378 7600 MacArthur Blvd. Oakland, California

Sample ID	Date Sampled	Well Elevation (ft-amsl)	Depth to Water (ft)	Groundwater Elevation (ft-amsl)	Depth to LPH (ft)	Product Thickness (feet)	<b>TPH</b> (μg/L)	DRO (μg/L)	<b>GRO</b> (μg/L)	Benzene (µg/L)	Toluene (μg/L)	Ethylbenzene (µg/L)	Total Xylenes (μg/L)	<b>MtBE</b> (μg/L)	DIPE (μg/L)	ETBE (μg/L)	<b>TAME</b> (μg/L)	<b>TBA</b> (μg/L)
_																		
MW-1	7/28/2016 <sup>1</sup>	89.45	22.62	66.83														
MW-1	8/5/2016	89.45	22.84	66.61			<5,000	260	<100	<1	<1	<1	<1	<1	<1	<1	<1	<20
MW-1	12/15/2016	89.45	19.71	69.74			<5,000	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<20
MW-1	2/16/2017	89.45	11.38	78.07		-	<5,000	<110	70 J	<1	<1	0.5 J	<1	<1	<1	<1	<1	<20
MW-2	7/28/2016 <sup>1</sup>	90.35	23.06	67.29														
MW-2	8/5/2016	90.35	24.15	66.20			<5,000	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<20
MW-2	12/15/2016	90.35	20.57	69.78			<5,000	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<20
MW-2	2/16/2017	90.35	10.93	79.42		-	<5,000	57 J	<100	<1	<1	<1	<1	<1	<1	<1	<1	<20
MW-3	7/28/2016 <sup>1</sup>	90.45	22.40	68.05														
MW-3	8/5/2016	90.45	22.91	67.54			1,500 J	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<20
MW-3	12/15/2016	90.45	20.11	70.34			<5,000	<100	<100	<1	<1	<1	<1	<1	<1	<1	<1	<20
MW-3	2/16/2017	90.45	10.85	79.60			<5,000	<110	<100	<1	<1	<1	<1	<1	<1	<1	<1	<20
QA-T	8/5/2016								<100	<1	<1	<1	<1	<1				
QA-T	12/15/2016								<100	<1	<1	<1		<1	<1	<1	<1	<20
QA-T	2/16/2017								<100	<1	<1	<1	<1	<1				

#### Table 1

#### **Cumulative Groundwater Elevation and Analytical Data** Former Tidewater Service Station Phillips 66 Site 5677 Chevron Site 373378

7600 MacArthur Blvd. Oakland, California

	Well		Groundwater	Depth to	Product							Total					
	Elevation	Depth to Water	Elevation	LPH	Thickness	TPH	DRO	GRO	Benzene	Toluene	Ethylbenzene	Xylenes	MtBE	DIPE	ETBE	TAME	TBA
Sample ID Date Sampled	(ft-amsl)	(ft)	(ft-amsl)	(ft)	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)

#### Abbreviations and Notes

amsl = above mean sea level

bgs = below ground surface

DIPE = Diisopropyl alcohol

ETBE = Ethyl tert-butyl ether

ID = Identification

LPH = Liquid phase hydrocarbons

MtBE = Methyl tertiary butyl ether

MRL = Method reporting limit

QA-T = Trip blank

RPD = Relative percent difference

TAME = Tert amylmethyl ether

TBA = Tert-butanol

TPH-DRO = Total Petroleum Hydrocarbons as Diesel Range Organics

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics

TPH-MRO = Total Petroleum Hydrocarbons as Motor Oil Range Organics

μg/L = micrograms per liter

< = Less than MRL

'-- = Not applicable

j = Laboratory estimated value1 = Well development performed

Table 2

# SVOCs and PAH Data Former Tidewater Service Station Phillips 66 Site 5677 Chevron Site 373378 7600 MacArthur Blvd. Oakland, California

		Δdd	itional SV	/OC's	T .							PAH's								
		Add	lional 3V	I								IAIIS	I				1			$\overline{}$
Sample ID	Date Sampled	규 1,2-Dichlorobenzene (o- 는 Dichlorobenzene)	句 (元 (元 (元	ਨੂੰ ਨੂੰ 1,4-Dichlorobenzene	(To Acenaphthene	ਨੂੰ ਨੂੰ Acenaphthylene	ਨੇ/ ()ਨੂੰ Anthracene	ਨੂੰ ਤੂੰ Benzo(a)anthracene	் ந் Benzo(a)pyrene	표 는 Benzo(b)fluoranthene	ਤੇ ਤੇ Benzo(g,h,i)perylene	표 연 Benzo(k)fluoranthene	(η/δπ) (Tysene	ති ලි Dibenz(a,h)anthracene	(¬/6π) (¬/Fluoranthene	(J/Sh) Fluorene	ਜੂ ਨੂੰ Indeno(1,2,3-cd)Pyrene	πghthalene (πg/L)	ர் 7 7	δή) (¬/Pyrene
MW-1	7/28/2016 <sup>1</sup>																			
MW-1	8/5/2016	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-1	12/15/2016	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-1	2/16/2017	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	7/28/2016 <sup>1</sup>																			
MW-2	8/5/2016	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	12/15/2016	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-2	2/16/2017	< <b>5</b>	< <b>5</b>	< <b>5</b>	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	7/28/2016 <sup>1</sup>																			
MW-3	8/5/2016	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	12/15/2016	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3	2/16/2017	<5	<5	<5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
QA-T	8/5/2016																			
QA-T	12/15/2016	<5	<5	<5																
QA-T	2/16/2017																			
٦,, ,																				

#### Table 2

# SVOCs and PAH Data Former Tidewater Service Station Phillips 66 Site 5677 Chevron Site 373378 7600 MacArthur Blvd. Oakland, California

	Add	litional S\	OC's								PAH's								
200	1,2-Dichlorobenzene (o- Dichlorobenzene)	,3-Dichlorobenzene	,4-Dichlorobenzene	cenaphthene	cenaphthylene	inthracene	enzo(a)anthracene	enzo(a)pyrene	ienzo(b)fluoranthene	enzo(g,h,i)perylene	enzo(k)fluoranthene	hrysene	Dibenz(a,h)anthracene	Fluoranthene	luorene	ndeno(1,2,3-cd)Pyrene	laphthalene	henanthrene	Pyrene
Date		Τ		<	<	<	a a	ă	Δ	<u> </u>	Δ	5		_	Ē	<u>-</u>	. Z		
Sample ID Sample	e <b>d</b> (μg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)

#### **Abbreviations and Notes**

ID = Identification

MRL = Method reporting limit

PAH = Polycyclic Aromatic Hydrocarbons

SVOC = Semi-Volatile Organic Compounds

μg/L = micrograms per liter

< = Less than MRL

-- = Not applicable

1 = Well development performed

#### Table 3

#### Cumulative Groundwater Elevation and Analytical Data Chevron Site 373378 CRAW 7600 MacArthur Blv Oakland, California

Total Carbon Sample ID Date Sampled Well Elevation Depth to Water Elevation Depth to LPH Product Thickness TPH DRO GRO Benzene Toluene Ethylbenzene Xylenes MtBE Chloroform Tetrachloride DIPE ETBE TAME TBA Lead (feet amsl) (feet TOC) (feet amsl) (feet TOC) (feet) (µg/L) 22.62 66.83 MW-1 07/28/16 89.45 MW-1 08/05/16 89.45 22.84 66.61 <5,000 260 <100 <1 <1 <1 <1 <1 <1 <1 <1 <20 <15.0 <1 MW-1 12/15/16 89.45 19.71 69.74 <5.000 <100 <100 <1 <1 <1 <1 <1 <1 <20 <15.0 <1 <1 <1 <1 MW-1 02/16/17 89.45 11.38 78.07 <5,000 <110 70 J <1 <1 0.5 J <1 <1 <1 <1 <1 <1 <1 <20 <15.0 23.06 67.29 MW-2 07/28/16 90.35 MW-2 8/5/2016 90.35 24.15 66.20 <5,000 <100 <100 <1 <1 <1 <1 <1 <1 <1 <20 <15.0 MW-2 12/15/16 90.35 20.57 69.78 <5,000 <100 <100 <1 <1 <1 <1 <1 <1 2 <1 <1 <1 <20 <15.0 57 J MW-2 02/16/17 90.35 10.93 79.42 <5,000 <100 <1 <1 <1 <1 <1 <1 0.9 J <1 <1 <1 <20 <15.0 MW-3 07/28/16 90.45 22.40 68.05 MW-3 8/5/2016 90.45 22.91 67.54 1,500 J <100 <1 <1 0.7 J 4 <1 <1 <20 <15.0 <100 <1 <1 <1 MW-3 12/15/16 90.45 20.11 70.34 <5,000 <100 <100 <1 <1 <1 <1 <1 0.8 J 3 <1 <1 <1 <20 <15.0 MW-3 02/16/17 90.45 10.85 79.60 <5.000 <110 <100 <1 <1 <1 <1 <1 0.6 J 0.8 J <1 <1 <1 <20 <15.0 QA-T 08/05/16 <100 <1 <1 <1 <1 <1 QA-T 12/15/16 <100 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <20 QA-T 02/16/17 <100 <1 <1 <1

#### Cumulative Groundwater Elevation and Analytical Data Chevron Site 373378 CRAW 7600 MacArthur Blv Oakland, California

		er									Total			Carbon					
Sample ID Date Sampled Well Elevation	Depth to Water	Elevation	Depth to LPH	Product Thickness	TPH	DRO	GRO	Benzene	Toluene	Ethylbenzene	Xylenes	MtBE	Chloroform	Tetrachloride	DIPE	ETBE	TAME	TBA	Lead
(feet amsl)	(feet TOC)	(feet amsl)	(feet TOC)	(feet)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)	(µg/L)

#### Abbreviations and Notes

amsl = above mean sea level

bgs = below ground surface

CRWQCB = California Regional Water Quality Control Board

DIPE = Diisopropyl alcohol

DUP = Duplicate sample

EPA = Environmental Protection Agency

ETBE = Ethyl tert-butyl ether

ID = Identification

LPH = Liquid phase hydrocarbons

MtBE = Methyl tertiary butyl ether

MRL = Method reporting limit

NS = Not sampled

NA = Not analyzed

QA-T = Trip blank

QC = Quality control

RPD = Relative percent difference

TAME = Tert amylmethyl ether

TB = Trip blank

TBA = Tert-butanol

TOC = top of casing

TPH-DRO = Total Petroleum Hydrocarbons as Diesel Range Organics

TPH-GRO = Total Petroleum Hydrocarbons as Gasoline Range Organics

TPH-MRO = Total Petroleum Hydrocarbons as Motor Oil Range Organics

 $\mu$ g/L = micrograms per liter

< = Less than MRL

'-- = Not applicable

j = Laboratory estimated value

## Attachment A Agency Correspondence

## ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



REBECCA GEBHART, Acting Director

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-657

July 19, 2016

Ms. Jillian Holloway
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583
(Sent via E-mail to: JillianHolloway@chevron.com)

Ms. Hong Gardner
632 Via Rialto Road
Oakland, CA 94619
(Sent via E-mail to: honggardner@gmail.com)

Mr. Ed Ralston - Program Manager Phillips 66 Company 76 Broadway Sacramento, CA 95818

Sent via e-mail to: Ed.C.Ralston@p66.com

Subject:

Technical Report Request for Fuel Leak Case RO0003087 and GeoTracker Global ID T10000003434, Hong Gardner Property, 7600 MacArthur Boulevard, Oakland, CA 94605-

2944

#### Ladies and Gentlemen:

Alameda County Department Environmental Health's (ACDEH) has reviewed the case file in addition to the *Site Investigation Report and Closure Request* (Report) dated December 1, 2014 and the *Geophysical Survey, Sanborn Map Review, and Addendum to Work Plan for Site Investigation* (Work Plan) dated April 29, 2014. The reports were prepared and submitted on your behalf by Conestoga-Rovers & Associates, now renamed GHD, in reference to the State Water Resources Control Board's (SWRCBs) Low Threat Underground Storage Tank Case Closure Policy (LTCP). Based on ACDEH staff review, we have determined that the site does not meet the LTCP General Criteria f (Secondary Source Removal), Media-Specific Criteria for Groundwater, or Media-Specific Criteria for Vapor Intrusion to Indoor Air.

ACDEH requests preparation of a Data Gap Work Plan that is supported by an updated Site Conceptual Model (SCM) to address the following data gaps.

#### **TECHNICAL COMMENTS**

1. General Criteria f – Secondary Source Has Been Removed to the Extent Practicable – "Secondary source" is defined as petroleum-impacted soil or groundwater located at or immediately beneath the point of release from the primary source. Unless site attributes prevent secondary source removal (e.g. physical or infrastructural constraints exist whose removal or relocation would be technically or economically infeasible), petroleum-release sites are required to undergo secondary source removal to the extent practicable as described in the policy. "To the extent practicable" means implementing a cost-effective corrective action which removes or destroys-in-place the most readily recoverable fraction of source-area mass. It is expected that most secondary mass removal efforts will be completed in one year or less. Following removal or destruction of the secondary source, additional removal or active remedial actions shall not be required by regulatory agencies unless (1) necessary to abate a demonstrated threat to human health or (2) the groundwater plume does not meet the definition of low threat as described in this policy.

ACDEH's review of the case files indicates that insufficient data and analysis has been presented to assess compliance with General Criteria f. The Geophysical Report included as Attachment C in the Work Plan describes finding six "High Strength Conductive Pulse Anomalies with Magnetic Gradiometer signature response" including "two relatively large projection anomalies along the back or northeast of the former building area that are found end to end in symmetry". One of the Work Plan's goals was to identify the buried conductive anomalies by hand augering borings in the areas of the anomalies to approximately 5-6 feet below ground surface. The Report, however, does not include the boring logs of the seven hand augered soil borings, or resolve the origin of the buried anomalies. Consequently, it has not been determined if secondary source remains at the site. Please present a strategy in the Updated Site Conceptual Model (SCM) and Data Gap Work Plan (described in Technical Comment 4 below) to address these Technical Comments and in an appendix include the boring logs of the seven hand augered soil borings. Alternatively, please provide justification of why the site satisfies this general criterion in the focused SCM described in Technical Comment 4 below.

2. LTCP Media Specific Criteria for Groundwater – To satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed in the policy.

Our review of the case files indicate that the three groundwater monitoring wells, MW-1 through MW-3, were installed in September and October 2014 and according to the Work Plan, were to be sampled on a quarterly basis for the first year. Grab groundwater samples were obtained from each well during installation, but the wells were not developed or sampled. Therefore, insufficient data and analysis has been presented to support the requisite characteristics of groundwater gradient direction, plume stability, and length. Please present a strategy in the Updated SCM and Data Gap Work Plan discussed in Technical Comment 4 to determine groundwater plume stability and length.

- a. Monitoring Well Development and Quarterly Sampling and Rose Diagram: Please develop the three wells and sample for a minimum of four quarters to establish groundwater gradient direction, existence of a plume, plume stability, and length; Please prepare a rose diagram using data from each sampling event to confirm the groundwater gradient consistency and please provide an updated rose diagram with every quarterly sampling event:
- **b.** Groundwater Concentration and Elevation Graphs: Please provide graphs indicating groundwater concentrations and groundwater elevations together with each sampling event;
- c. Baseline Analytical: To establish a baseline, on a one-time basis and in the future, on an as needed basis, please analyze all groundwater samples for the full suite of Volatile Organic Compounds (VOCs) and please ensure detection limits are below proposed cleanup levels;
- d. LTCP Plume Lengths: To present another line of evidence supporting plume lengths, please prepare a figure indicating the average, 90<sup>th</sup> percentile, and maximum plume lengths for TPHg, benzene, and MTBE by referencing Table 1: Plume Characteristics, in the LTCP's Technical Justification for Groundwater Media-Specific Criteria. As shown in Attachment 2, Sample Figures of Adjacent Buildings with Basements, LTCP Plume Lengths, and Well Survey, please include the locations of the six water production wells identified in the one mile well survey included in the Report.
- **e.** Investigation-Derived Waste: Please submit the disposal documentation for the soil cuttings, rinsate water, and forth-coming well development and quarterly sampling events to ACDEH and to Geotracker, as described below.

3. LTCP Media Specific Criteria for Vapor Intrusion to Indoor Air – The LTCP describes conditions, including bioattenuation (unsaturated) zones, which if met will assure that exposure to petroleum vapors in indoor air will not pose unacceptable health risks to human occupants of existing or future site buildings, and adjacent parcels. Appendices 1 through 4 of the LTCP criteria illustrate four potential exposure scenarios and describe characteristics and criteria associated with each scenario.

Our review of the case files indicates that the risk of vapor intrusion cannot be assessed due to the uncertainty that the secondary source(s) were removed. Therefore, ACDEH requests an evaluation of the media-specific criteria in the updated SCM and Data Gap Work Plan. Please assess potential vapor intrusion to indoor air to the adjacent residences.

If soil vapor wells are proposed, please ensure that your sampling strategy is consistent with the field sampling protocols described in the Department of Toxic Substances Control's Final Vapor Intrusion Guidance (October 2011) and the updated February 22, 2016 San Francisco Bay Regional Water Quality Control Board Environmental Screening Levels Version 3. Consistent with the guidance, ACDEH requires installation of permanent vapor wells to assess temporal and seasonal variations in soil gas concentrations. Please include the soil vapor investigation with the Updated SCM and Data Gap Work Plan requested below.

4. Data Gap Investigation Work Plan and Site Conceptual Model — Please prepare a Data Gap Investigation Work Plan to address the technical comments listed above. Please support the scope of work in the Data Gap Investigation Work Plan with a focused SCM and Data Quality Objectives (DQOs) that relate the data collection to each LTCP criteria.

As a part of updating the SCM, please include a rose diagram and locations of houses and buildings that have basements in the immediate downgradient direction of the site similar to the example provided in Attachment 2, Sample Figures of Adjacent Buildings with Basements, LTCP Plume Lengths, and Well Survey.

- 5. Request for information The ACDEH case file for the subject site contains only the electronic files listed on our web site at <a href="http://www.acgov.org/ACDEH/lop/ust.htm">http://www.acgov.org/ACDEH/lop/ust.htm</a>. You are requested to submit electronic copies of all other reports including Phase I Reports, data, correspondence, etc. related to environmental investigations for this property not currently contained in our case file by the date specified in the Technical Report Request Section below. ACDEH requests e-mail notification of, and a list of the documents uploaded to Geotracker by the date listed below.
- 6. Electronic Submittal of Information (ESI) Compliance Site data and documents are maintained in two separate electronic databases ACDEH's ftp site and the SWRCB's GeoTracker database. Both databases act as repositories for regulatory directives and reports; however, only GeoTracker has the functionality to store electronic compliance data including analytical laboratory data for soil, vapor and water samples, monitoring well depth-to-water measurements, and surveyed location and elevation data for permanent sampling locations. Although the SWRCB is responsible for the overall operation and maintenance of the GeoTracker System, ACDEH, as lead regulatory agency, is responsible to ensure the GeoTracker database is complete and accurate for sites regulated under ACDEH's Environmental Cleanup Oversight Programs (SWRCB March 2011 document entitled Electronic Reporting Roles and Responsibilities).

A review of the case file and the State's GeoTracker database indicates that the site is not in compliance with California Code of Regulations, Title 23, Division 3, Chapter 16, Article 12, Sections 2729 and 2729.1, stating that beginning September 1, 2001, all analytical data, including monitoring well samples, submitted in a report to a regulatory agency as part of the UST or LUST program, must be transmitted electronically to the SWRCB GeoTracker system via the internet. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all

Ladies and Gentlemen RO0003087 July 19, 2016, Page 4

> groundwater cleanup programs, including the Site Cleanup Program (SCP) cases. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites was required in GeoTracker. At present missing data and documents include, but may not be limited to, EDF submittals, depth to groundwater data (GEO\_WELL files), well data (GEO\_XY, and GEO\_Z files), work plans, and older reports (GEO REPORT files). Please upload requisite documents and data to GeoTracker. See Attachment 1 and the State's GeoTracker website for further details.

#### **TECHNICAL REPORT REQUEST**

Please upload technical reports to the ACDEH ftp site (Attention: Karel Detterman), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

- September 20, 2016 3<sup>rd</sup> Quarterly Groundwater Monitoring and Sampling Report, Well Development, and Waste Disposal File to be named: RO3087\_GWM\_R\_yyyy-mm-dd
- September 20, 2016 Updated Site Conceptual Model and Data Gap Work Plan File to be named: RO3087 SCM WP yyyy-mm-dd
- January 20, 2017 4th Quarterly Monitoring and Sampling Report and Waste Disposal File to be named: RO3087 GWM R yyyy-mm-dd
- May 20, 2017 1st Quarterly Monitoring and Sampling Report and Waste Disposal File to be named: RO3087 GWM R yyyy-mm-dd
- September 20, 2017 -2<sup>nd</sup> Quarterly Monitoring and Sampling Report and Waste Disposal File to be named: RO3087 GWM R yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Thank you for your cooperation. Should you have any questions or concerns regarding this correspondence or your case, please send me an e-mail message at karel.detterman@acgov.org or call me at (510) 567-6708.

Sincerely,

Digitally signed by Karel Detterman DN: cn=Karel Detterman, o, ou,

email=karel.detterman@acgov.org, c=US

Date: 2016.07.19 16:16:17 -07'00'

Karel Detterman, PG

Hazardous Materials Specialist

Enclosures:

Attachment 1 - Responsible Party (ies) Legal Requirements / Obligations and Electronic

Report Upload (ftp) Instructions

Attachment 2, Sample Figures of Adjacent Buildings with Basements, LTCP Plume Lengths, and Well Survey

Ladies and Gentlemen RO0003087 July 19, 2016, Page 5

cc: Matthew Davis, LG, 732 Broadway Suite 301, Tacoma, WA 98402 (Sent via E-mail to: matthew.davis@ghd.com)

Donald Schwartz, Esq., 7960-B Soquel Drive, No. 291, Aptos, CA 95003 (Sent via E-mail to: <a href="mailto:donald@lawofficedonaldschwartz.com">donald@lawofficedonaldschwartz.com</a>)

Dilan Roe, ACDEH (Sent via E-mail to: dilan.roe@acgov.org)

Karel Detterman, ACDEH (Sent via E-mail to: karel.detterman@acgov.org)

Electronic File, GeoTracker

#### **Attachment 1**

#### Responsible Party(ies) Legal Requirements / Obligations

#### REPORT REQUESTS

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### **ELECTRONIC SUBMITTAL OF REPORTS**

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) GeoTracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the **SWRCB** website for more information these requirements (http://www.waterboards.ca.gov/water\_issues/programs/ust/electronic\_submittal/).

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

#### **AGENCY OVERSIGHT**

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

## Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)

REVISION DATE: May 15, 2014

ISSUE DATE: July 5, 2005

PREVIOUS REVISIONS: October 31, 2005;

December 16, 2005; March 27, 2009; July 8, 2010,

July 25, 2010

**SECTION:** Miscellaneous Administrative Topics & Procedures

SUBJECT: Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

#### REQUIREMENTS

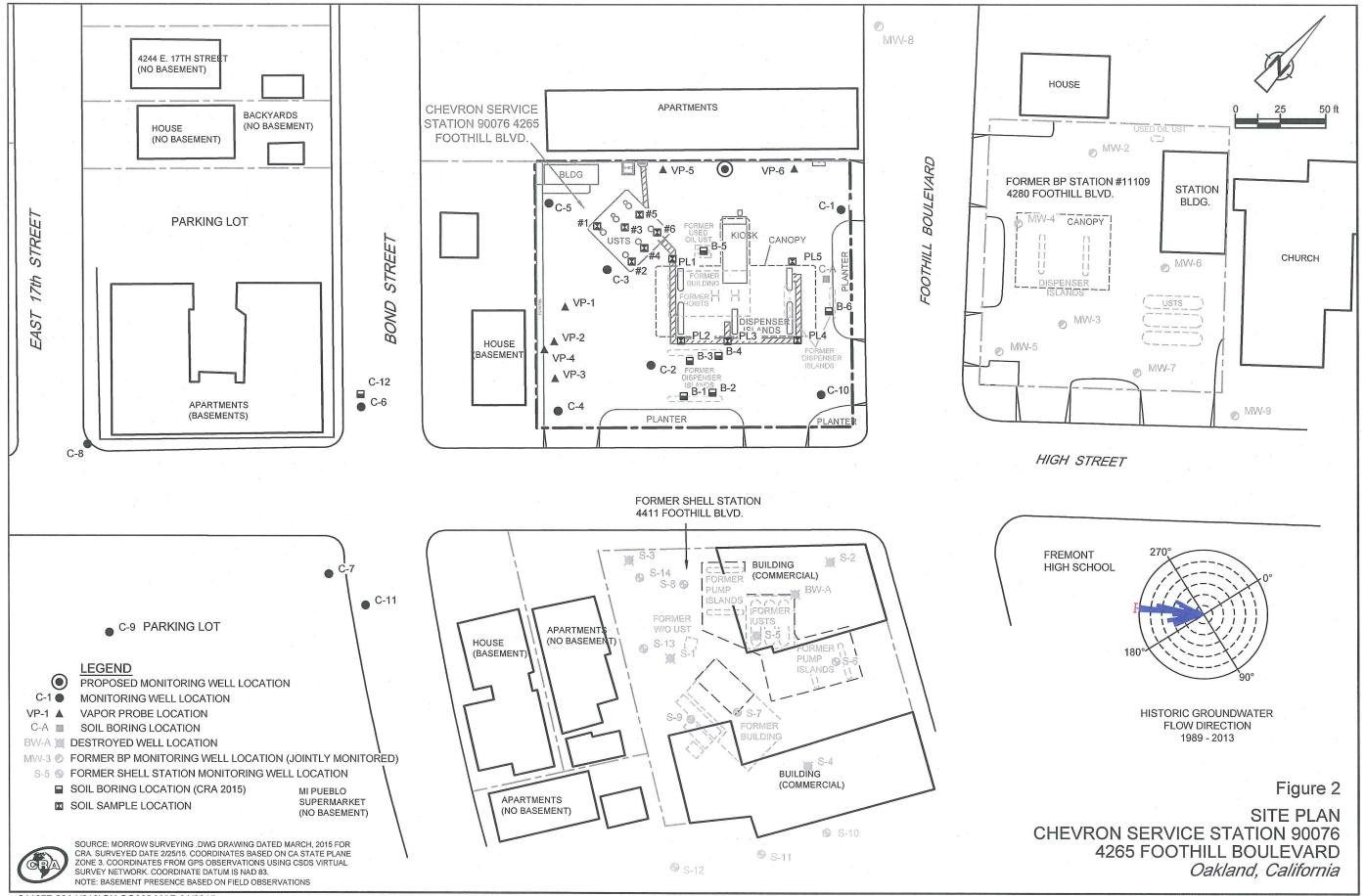
- Please do not submit reports as attachments to electronic mail.
- Entire report including cover letter must be submitted to the ftp site as a single portable document format (PDF) with no password protection.
- It is preferable that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements must be included and have either original or electronic signature.
- Do not password protect the document. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. Documents with password protection will not be accepted.
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:

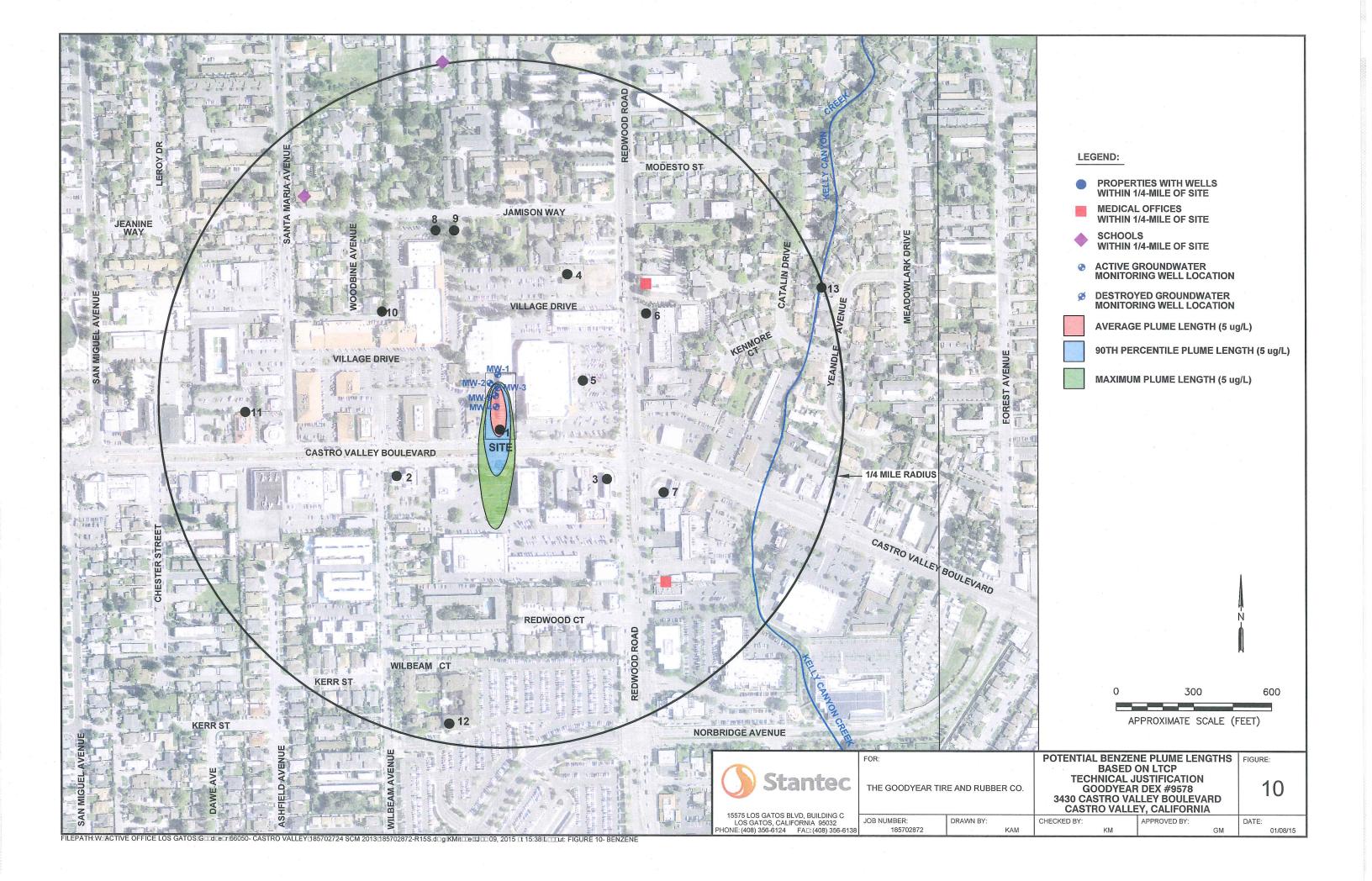
RO# Report Name\_Year-Month-Date (e.g., RO#5555 WorkPlan 2005-06-14)

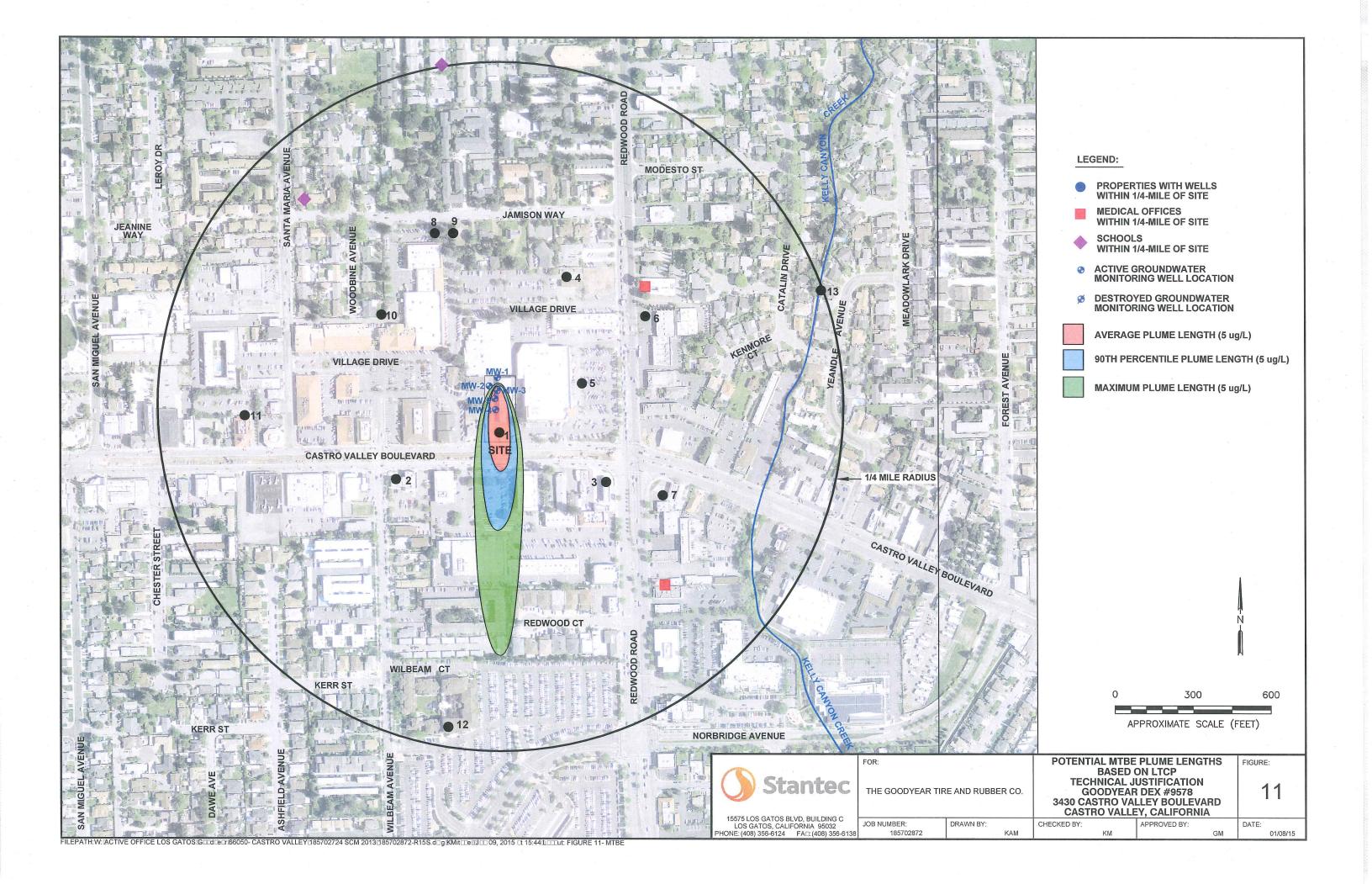
#### **Submission Instructions**

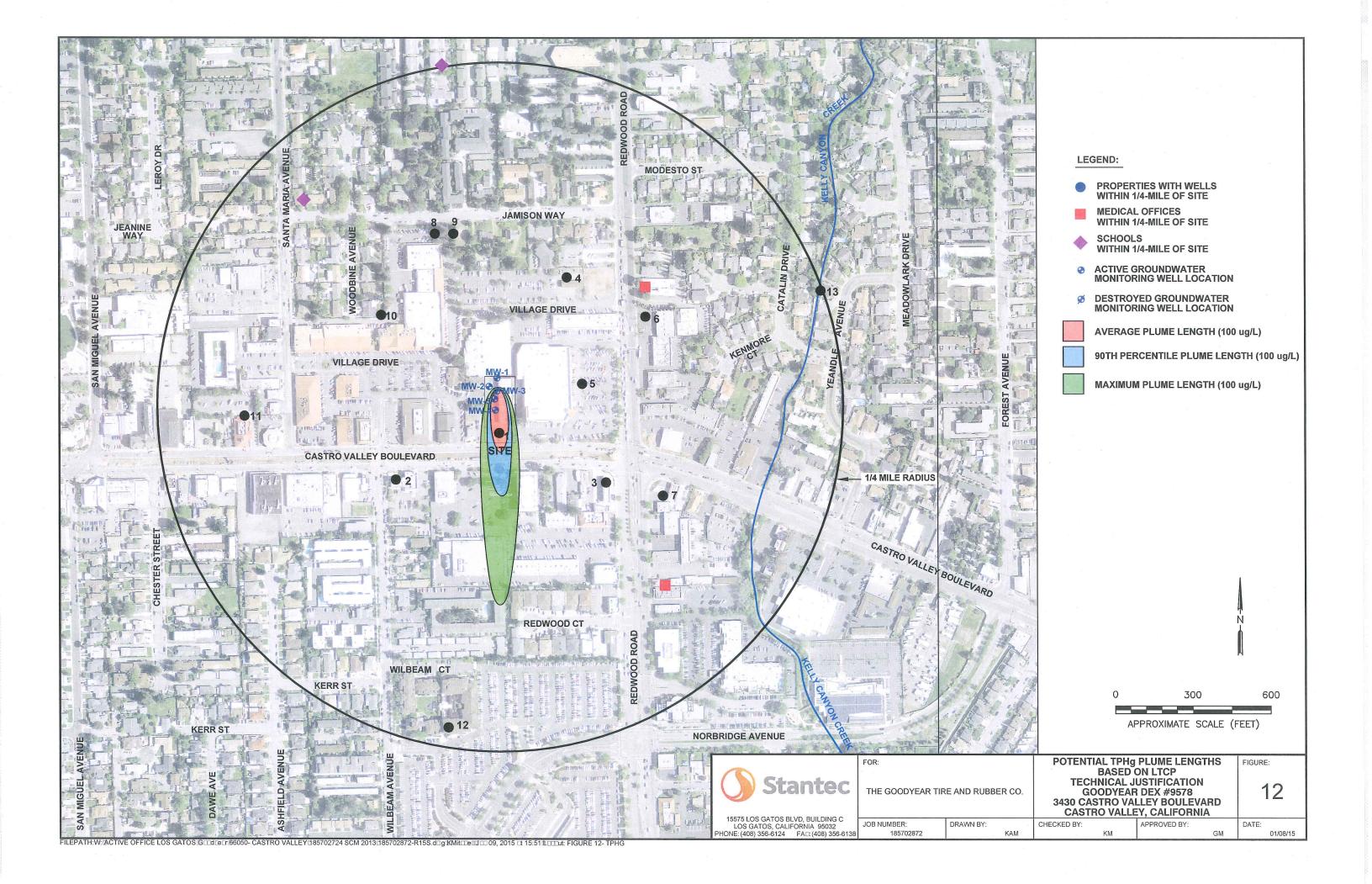
- 1) Obtain User Name and Password
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to <a href="mailto:deh.loptoxic@acgov.org">deh.loptoxic@acgov.org</a>
  - b) In the subject line of your request, be sure to include "ftp PASSWORD REQUEST" and in the body of your request, include the Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <a href="ftp://alcoftp1.acgov.org">ftp://alcoftp1.acgov.org</a>
    - (i) Note: Netscape, Safari, and Firefox browsers will not open the FTP site as they are NOT being supported at this time.
  - b) Click on Page located on the Command bar on upper right side of window, and then scroll down to Open FTP Site in Windows Explorer.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to <a href="mailto:deh.loptoxic@acgov.org">deh.loptoxic@acgov.org</a> notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload). If site is a new case without an RO#, use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

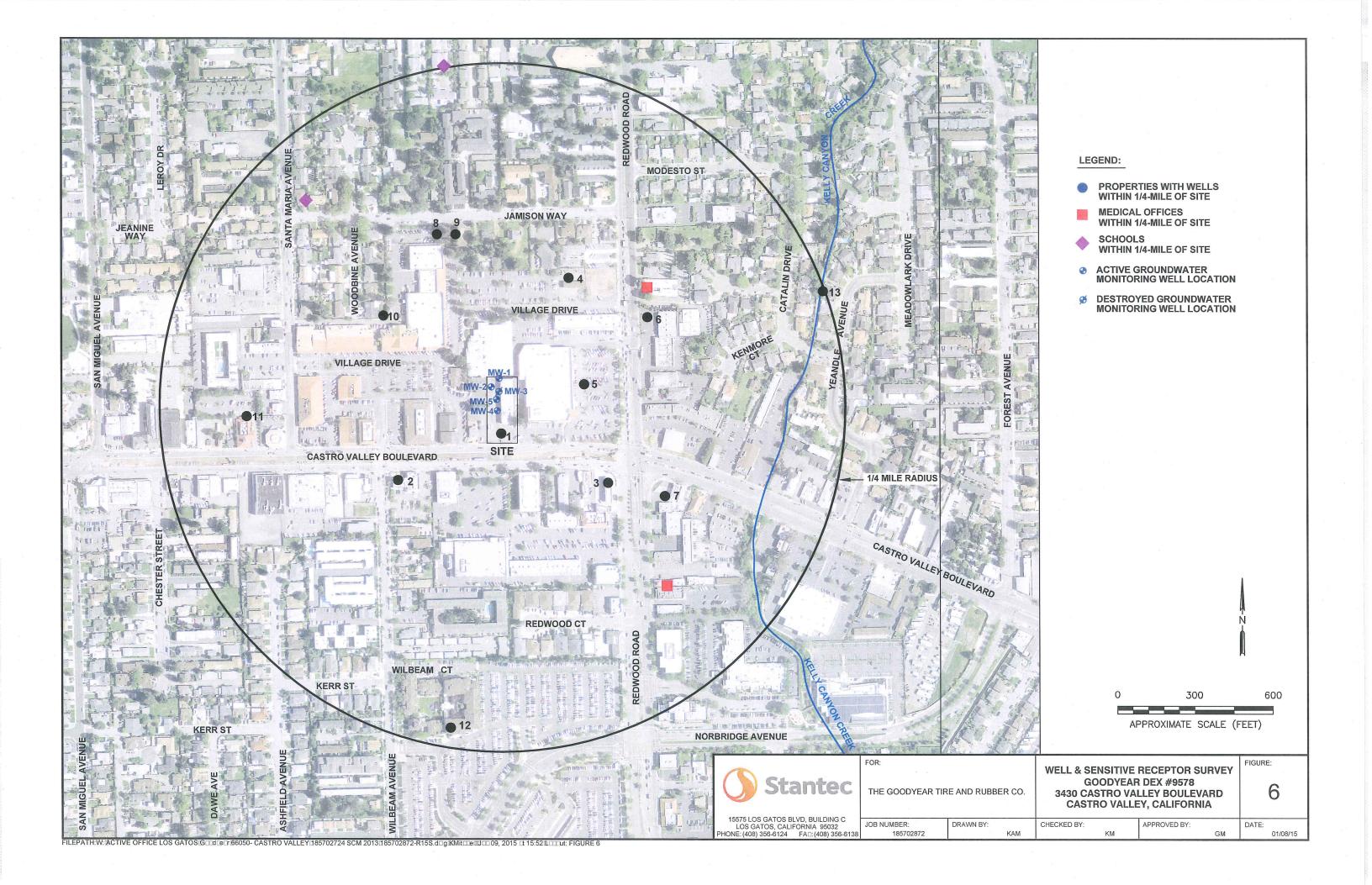
### ATTACHMENT 2











## APPENDIX C Wells Survey Results Former Goodyear Tire Store

3430 Castro Valley Boulevard Castro Valley, CA

	Owner/Site Name	Well Type	Drill Date	Total Depth	Address	Approximate Distance/Direction From Site
1	Merritt Tire Sale	Monitoring Wells	Sept 94, Dec 96, Aug 12	16-20	3430 Castro Valley Blvd.	0
2	CHEVRON #9-4930 / VALLEY CAR WASH	Monitoring Well	Oct-93	20	3369 Castro Valley Blvd.	460 SW
3	Ted Simas (XTRA OIL DBA SHELL STATION)	Monitoring Wells	Feb 90 & Aug 97	18-20	3495 Castro Valley Blvd.	510 SE
4	R. T. Nahas Company (UNOCAL)	Monitoring Wells	Dec 89	25-30	20405 Redwood Rd.	520 NE
5	R. T. Nahas Company	Monitoring Wells	Apr 92	29-37	20629 Redwood Rd	310 E
6	Exxon Oil	Unknown	ş	ş	20450 Redwood Rd.	650 NE
7	BP #11105 / SHELL 17-1445	Monitoring Well	Sept 92, July 95, Aug 09,	15-30	3519 Castro Valley Blvd.	700 SE
8	R. T. Nahas Company	Domestic/Destroyed	Dec 75	56	3559 JAMISON WAY	700 NNW
9	R. T. Nahas Company	Destroyed	ŝ	20 & 25	3533 JAMISON WAY	725 NNW
10	Horseshoe Drilling	Destroyed	Apr 96	20	20342 Woodbine Ave	600 NW
11	Mitzi Stockel	BOR/MON	Apr-90	8-23	3234 Castro Valley Blvd	1000 W
12	BART	Monitoring Well	Feb 93	16	21000 Wilbeam Ave.	1225 SSW
13	Robert D Rousey	Irrigation	May-77	28	20283 Yeandle Ave.	1325 ENE

Attachment B Monitoring Data Package

February 23, 2017 G-R #17155905

TO:

Mr. Matt Davis

**GHD** 

732 Broadway, Suite 301 Tacoma, WA 98402

FROM: Deanna L. Harding

**Project Coordinator** Gettler-Ryan Inc.

6805 Sierra Court, Suite G Dublin, California 94568

RE:

**Former Tidewater Service Station** 

**Chevron #373378** 7600 MacArthur Blvd. Oakland, California

#### WE HAVE ENCLOSED THE FOLLOWING:

COPIES	_	DESCRIPTION
VIA PDF	e e	Groundwater Monitoring and Sampling Report First Quarter Event of February 16, 2017

#### **COMMENTS:**

Pursuant to your request, we are providing you with a copy of the above referenced data for your use.

Please provide us the updated historical data prior to the next monitoring and sampling event for our field use.

Please feel free to contact me if you have any comments/questions.

Trans 373378

#### **WELL CONDITION STATUS SHFFT**

Client/ Facility #:	Cheure	. #272270			-						
Site Address:		#373378		<u> </u>		_	Job #:	1715590			_
		carthur Bl	va.			-	Event Date:		<u>2.</u>	16.17	_
City:	Oakland	, CA					Sampler:			er .	_
WELL ID	Vault Frame Condition	Gasket/ O-Ring (M) Missing (R) Replaced	Bolts (M) Missing (R) Replaced	Bolt Flanges B=Broken S=Stripped R=Retaped	Apron Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) Inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y/O	REPLACE CAP Y/M	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Y/
MMI	DK						<b>-&gt;</b>	1	1	Mo. Jal	
MW2	DL	~					_>			Monn 302/84/2	
MW2 MW3	OIL						->	4			
								•			
			-								
Comments											

### STANDARD OPERATING PROCEDURE GROUNDWATER SAMPLING

Gettler-Ryan Inc. (GR) field personnel adhere to the following procedures for the collection and handling of groundwater samples prior to analysis by the analytical laboratory. All work is performed in accordance with the GR Health & Safety Plan and all client-specific programs. The scope of work and type of analysis to be performed is determined prior to commencing field work.

Prior to sampling, the presence or absence of free-phase hydrocarbons is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot and is noted in the field notes. In addition, all depth to water level measurements are collected with a static water level indicator and are also recorded in the field notes, prior to purging and sampling any wells. Total well depths are measured annually.

After water levels are collected and prior to sampling, if purging is to occur, each well is purged a minimum of three well casing volumes of water using pre-cleaned pumps (stack, peristaltic or Grundfos), or disposable bailers. Temperature, pH and electrical conductivity are measured a minimum of three times during the purging (additional parameters such as dissolved oxygen, oxidation reduction potential, turbidity may also be measured, depending on specific scope of work.). Purging continues until these parameters stabilize.

Groundwater samples are collected using disposable bailers. The water samples are transferred from the bailer into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used. When pre-preserved containers are not available, the laboratory is instructed to preserve the sample as appropriate. Duplicate samples are collected for the laboratory to use in maintaining quality assurance/quality control standards, as directed by the scope of work. The samples are labeled to include the job number, sample identification, collection date and time, analysis, preservation (if any), and the sample collector's initials. The water samples are placed in a cooler, maintained at 4°C for transport to the laboratory. Once collected in the field, all samples are maintained under chain of custody until delivered to the laboratory.

The chain of custody document includes the job number, type of preservation, if any, analysis requested, sample identification, date and time collected, and the sample collector's name. The chain of custody is signed and dated (including time of transfer) by each person who receives or surrenders the samples, beginning with the field personnel and ending with the laboratory personnel.

A laboratory supplied trip blank accompanies each sampling set. The trip blank is analyzed for some or all of the same compounds as the groundwater samples.

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by Clean Harbors Environmental Services to Seaport Environmental located in Redwood City, California.

#### WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Site Address: City:	Chevron #37 7600 Macarth Oakland, CA	nur Blvd.		Job Number: Event Date: Sampler:	17155905 2.16.17	(inclusive)
Well ID Well Diameter Total Depth Depth to Water  Depth to Water  Purge Equipment: Disposable Bailer Stainless Steel Bailer Stack Pump Peristaltic Pump QED Bladder Pump Other:		XVF 17  (Height of W Sa Di Pr Mo	Volument Factor Volument Facto	or (VF) 4"= 0. is less then 0.50 x3 case volume =	.66 5"= 1.02 6"= 1.50 12"= 0 ft. Estimated Purge Volume: 12.	(2400 hrs) (2400 hrs) ft ft ft ft continued to the contin
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.)	ate: 1215 /2	gpm. If yes, Tim pH 7.67 7.63	Sediment Des	CLEAN	D.O. ORP (mg/L)	11.5%
			APORATORY IN	FORMATION		
SAMPLE ID  MW-	(#) CONTAINER  x voa vial  x 500ml ambers  x 1 liter WM glass  x 250ml ambers  x 250ml ambers  x 250ml poly	REFRIG. YES YES YES YES YES YES YES YES	ABORATORY IN PRESERV. TYPE HCL NP HCL NP HCL NP HNP NP HNO3	EUROFINS EUROFINS EUROFINS EUROFINS EUROFINS EUROFINS EUROFINS	TPH-GRO(8015)/FULL LIST VOO TPH-DRO(8015) OIL & GREASE SGT-HEM(1664A PAH's(8270) NAPHTHALENE(8270) DISSOLVED WEAR METALS(60	C's(8260) A)
Add/Replaced Ga		Add/Replaced	d Bolt:	Add/Replaced Loc	ck: Add/Replaced P	Plug:



### WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Site Address: City:	Chevron #37 7600 Macarth Oakland, CA			Job Number: Event Date: Sampler:	17155905 2.16.17 FT	(inclusive)
Well ID Well Diameter Total Depth Depth to Water  Depth to Water  Purge Equipment: Disposable Bailer Stainless Steel Baile Stack Pump Peristaltic Pump QED Bladder Pump Other:	w/ 80% Recharge	XVF	Volument Factor Volument Volum	or (VF) 4"= 0. is less then 0.50 x3 case volume =	66 5"= 1.02 6"= 1.50  ft.  Estimated Purge Volume:	(2400 hrs)(2400 hrs)ftftftft Description:  It Sock (circle one) Skimmer: ftr
Start Time (purge Sample Time/Da Approx. Flow Ra Did well de-wate Time (2400 hr.)	te: 1025 / 2 te:	9pm. If yes, Tim pH 7.90 7.87	Weather Con Water Color: Sediment De: ne:	CLEAN		ng:
			ADODATODY IN	FORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	ABORATORY IN PRESERV. TYPE	LABORATORY	ANA	ALYSES
MW- 2	x voa vial	YES	HCL	EUROFINS	TPH-GRO(8015)/FULL LIST	
	x 500ml ambers	YES	NP	EUROFINS	TPH-DRO(8015)	· · · · · · · · · · · · · · · · · · ·
	2x 1 liter WM glass	YES	HCL	EUROFINS	OIL & GREASE SGT-HEM(	1664A)
	2 x 250ml ambers	YES	NP	EUROFINS	PAH's(8270)	
	2 x 250ml ambers	YES	NP	EUROFINS	NAPHTHALENE(8270)	
	x 250ml poly	YES	HNO3	EUROFINS	DISSOLVED WEAR METAI	LS(6010)
COMMENTS:						
Add/Replaced Ga	sket:	Add/Replaced	i Bolt:	Add/Replaced Loc	k: Add/Repla	aced Plug:



Add/Replaced Gasket: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_

### WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#:	Chevron #37	3378		Job Number:	17155905	
Site Address:	7600 Macartl	nur Blvd.	·	Event Date:	2.16.17	(inclusive)
City:	Oakland, CA			Sampler:	Fr	
Well ID	мw-3		D	ate Monitored:	2,16.17	
Well Diameter	<b>2</b> in	<b>-</b>	<del></del>			
Total Depth	35.50 ft.	_	Volui Facto	ne 3/4"= 0. or (VF) 4"= 0.		= 0.38 = 5.80
Depth to Water	10.85 ft.	-	ـــــــ heck if water columr	is less than 0.50		
Dopin to Water	1465	xVF			Estimated Purge Volume: 13.	th and
Denth to Water	w/ 80% Recharge		ater Column x 0.20) +			gai.
Deptil to water	w oo w itechaige	(Height of VV	alei Column x 0.20) +	DIWJ.	Time Started:	(2400 hrs)
Purge Equipment:		Sa	ampling Equipment:		Time Completed:	(2400 hrs)
Disposable Bailer			sposable Bailer		Depth to Product:	ft
Stainless Steel Baile	er		essure Bailer		Depth to Water:	ft
Stack Pump		M	etal Filters		Hydrocarbon Thickness:	ft I
Peristaltic Pump		Pe	eristaltic Pump		Visual Confirmation/Descri	iption:
QED Bladder Pump		QI	ED Bladder Pump		Skimmer / Absorbant Sock	(circle one)
Other:		Of	her:		Amt Removed from Skimm	
					Amt Removed from Well:	
					Water Removed:	ltr
					<u> </u>	
Start Time (purge	): 1040		Weather Con	ditions:	SYNNY	
Sample Time/Da		1.16.17		CLEAN		
Approx. Flow Ra	100	gpm.	Sediment De		None	
Did well de-wate			ne:Vo		The state of the s	10.91
Did well de-wate		ii yes, iiii		iume.	_ gai. DTW @ Sampling: _	10. 11
Time	Volumo (gal )	nLI	Conductivity	Temperature	D.O. ORP	
(2400 hr.)	Volume (gal.)	рН	μmhos/cm)	(C) / F)	(mg/L) (mV)	
1048	4.5	7.55	ファス	193		
1056	9.0	7.50	740	19.9		
1104	13.0	753	751	20.1		
		E	_ABORATORY IN	FORMATION		
SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSI	
MW- 3	6 x voa vial		HCL	EUROFINS	TPH-GRO(8015)/FULL LIST VOC	C's(8260)
	x 500ml ambers	YES	NP HO	EUROFINS	TPH-DRO(8015)	
	x 1 liter WM glass x 250ml ambers	YES YES	HCL NP	EUROFINS	OIL & GREASE SGT-HEM(1664A	A)
	2 x 250ml ambers	YES	NP NP	EUROFINS EUROFINS	PAH's(8270) NAPHTHALENE(8270)	
	x 250ml poly	YES	HNO3	EUROFINS	DISSOLVED WEAR METALS(60	10)
		·				
					<u> </u>	
COMMENTS:						-

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_

# Chevron California Region Analysis Request/Chain of Custody

eurofins   CW/M+		-25%	Acct	t. #					r Euro Group	ofins La ກ #	ancar	ster L	.abora		s Envir		ental <sup>r</sup>	use o	nly							
Lancaster Labo Environmental	ratories	7020	/ 100t.	# <u></u>						nstruction	ns on re	averse r	side cor				ıumber	īS.					141	- 10f1	1	
Client In	nformatio			_		厂	M	latrix		丁				A	nalys	ses l	Req	uest	ed				SCR	R #:		
Facility # SS#373378-OML G-R#171559	305 Glo	wbs	1000000	)343	4															44)			-	Transition of the state of the		
Site Address 7600 MACARTHUR BLVD., O/	AKLAND	), CA					] 🔯						ë M					(3)	_	7 5		(٥٢٥)		desults in Dry W		
Chevron PM GHDMD		Lead Consu Davis				diment	Ground	Surface			<u>                                    </u>		Ιō	Cleanup				6010)	8160	1 1	1 1	787	₩ Ø	flust meet lowes mits possible fo	est detecti	ction
Consultant/Office Getter-Ryan Inc., 6805 Sierra (	Court, S	uite G, [	Jublin, C	;A 94	568	Ιŏ	ו ו	S		ainers	8260	8260	Gel	Ö						1 5		JA (	cc	ompounds 021 MTBE Con		
Consultant Project Mgr.  Deanna L. Harding, deanna@g	grinc.co	m								of Containers	2		out Silica	Silica		g	Method	A ETALS Method	10C's	EASÉ	10)	U.		confirm highest	t hit by 82	3260
Consultant Phone # (925) 551-7444 x180						1_	Potable	NPDES	    - 		: 1		15 with	15 with		Oxygenates		1-1	15	PRE	285	THA		lun oxy		ighest hit
Sampler FRANK TERNINO	ni				Composite					١ź	+ MTBE	8	TPH-DRO 8015 without	TPH-DRO 8015 with	8260 Full Scan	ő	ead	Dissolved (	1 1	46	HS (	I		,		and advantages of
Sample Identification	Soil Depth		lected Time	Grab	Jmo	Soil		Water	ē	ल	BTEX +	TPH-GRO	PH-	PH-D	260 F		Total Lead	issolv	FULL	210	PAH	4 2		Rema		
QA	Depui	17.2.16	+	15	ب	10)	_	<u>×</u>	+	步	\ <del>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</del>	校	屵	+-	<u>∞</u>	$\square$	بت	P				H				70
MW-1		1	1215	X	$\Box$	$\vdash$	1	1		A TE	广	X	X	+				X	X	X	X	X	R	WEAR ME REPORT AR	RE: AI	∖I, Ba,
MW-7			1025	X			1_			1º	<b>,</b> _	X	X					X	义	X	Ż	X	Ε	B, Cd, Ca, C	Cr, Cu	ı, Fe,
Mw-3		X	1112	X				1	المنطقة المنطقة	15		X	X					X	X	X	X	X		Pb, Mg, Mo, SI, Ag, Na, S	S, Sn,	
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11				<u> </u> '	⊥_′	$\perp$	1		_					<u> </u>		$\sqcup$					$\bigsqcup$					
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Turnaround Time Requested (	(TAT) (plc	- cirolo		Relin	quished	ad by	丄		上		Date		Щ	Time	لل	Ш	Rece	eived by	لــــــــــــــــــــــــــــــــــــــ		1		ID:	ate	Time	
Standard 5 day		4 day	/		e	f	)	_	_	Þ		7.2	1-16	1			a	) ) 	1	4	le	ne l		6FEB1	1	1625
72 hour 48 hour		24 hour		Relinc	quished	d by	)				Date			Time			Recei	eived by			-/			ate	Time	
Data Package (circle if required)		ED	F/EDD	Relin	quished	d by					Date	,		Time	,		Recei	eived by	,—	_			Di	ate	Time	
Type I - Full Type VI (I	(Raw Data)			Reli	naujs	hed!	hv C	ommer	ercial	Carri	er:			L			Rece	eived by	A/				D <sub>i</sub>	ate	Time	
EDD (circle if required)				-	-		-				1.	O <sup>r</sup>	ther			J	Nous.	VCu,					[-	ite	linne	
EDEEL AT (default) Other			UPS FedEx Other							No																

# Attachment C Laboratory Analytical Report



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

#### ANALYTICAL RESULTS

Prepared by:

Prepared for:

Eurofins Lancaster Laboratories Environmental 2425 New Holland Pike Lancaster, PA 17601 GHD 10969 Trade Center Drive Suite 107 Rancho Cordova CA 95670

Report Date: March 02, 2017

Project: 373378 Tidewater Oakland

Submittal Date: 02/18/2017 Group Number: 1767544 PO Number: 4072862 State of Sample Origin: CA

 Client Sample Description
 (LL) #

 QA-T-170216 NA Water
 8843573

 MW-1-W-170216 Grab Groundwater
 8843574

 MW-2-W-170216 Grab Groundwater
 8843575

 MW-3-W-170216 Grab Groundwater
 8843576

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Regulatory agencies do not accredit laboratories for all methods, analytes, and matrices. Our current scopes of accreditation can be viewed at <a href="http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/">http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/</a>. To request copies of prior scopes of accreditation, contact your project manager.

Electronic Copy To GHD
Electronic Copy To Chevron
Electronic Copy To GHD

Attn: Matt Davis
Attn: Report Contact
Attn: Chevron EDF

Respectfully Submitted,

Amek Carter Specialist

(717) 556-7252



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: QA-T-170216 NA Water

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843573

LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

MBOQA

CAT No.	Analysis Name		CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles	SW-846	8260B	ug/l	ug/l	ug/l	
10945	Benzene		71-43-2	N.D.	0.5	1	1
10945	Ethylbenzene		100-41-4	N.D.	0.5	1	1
10945	Methyl Tertiary But	yl Ether	1634-04-4	N.D.	0.5	1	1
10945	Toluene		108-88-3	N.D.	0.5	1	1
10945	Xylene (Total)		1330-20-7	N.D.	0.5	1	1
GC Vol	latiles	SW-846	8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water	C6-C12	n.a.	N.D.	50	100	1

#### Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
10945	BTEX/MTBE	SW-846 8260B	1	D170595AA	02/28/2017 19:43	Hu Yang	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	D170595AA	02/28/2017 19:43	Hu Yang	1
01728	TPH-GRO N. CA water	SW-846 8015B	1	17055C20A	02/26/2017 13:12	Jeremy C Giffin	1
	C6-C12						
01146	GC VOA Water Prep	SW-846 5030B	1	17055C20A	02/26/2017 13:12	Jeremy C Giffin	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843574 LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 12:15 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	ug/l	
10335	Acetone	67-64-1	N.D.	6	20	1
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1	1
10335	Benzene	71-43-2	N.D.	0.5	1	1
10335	Bromobenzene	108-86-1	N.D.	1	5	1
10335	Bromochloromethane	74-97-5	N.D.	1	5	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1	1
10335	Bromoform	75-25-2	N.D.	0.5	4	1
10335	Bromomethane	74-83-9	N.D.	0.5	1	1
10335	2-Butanone	78-93-3	N.D.	3	10	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	20	1
10335	n-Butylbenzene	104-51-8	N.D.	1	5	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	5	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	5	1
10335	Carbon Disulfide	75-15-0	N.D.	1	5	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1	1
10335	Chloroethane	75-00-3	N.D.	0.5	1	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	10	1
	2-Chloroethyl vinyl ether may preserve this sample.	y not be recovered	if acid was used to			
10335	Chloroform	67-66-3	N.D.	0.5	1	1
10335	Chloromethane	74-87-3	N.D.	0.5	1	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	5	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	5	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	5	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	5	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	5	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	5	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	5	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1	1
10335	Ethanol	64-17-5	N.D.	50	250	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1	1
10335	Ethylbenzene	100-41-4	0.5 J	0.5	1	1
10335	Freon 113	76-13-1	N.D.	2	10	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	5	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843574 LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 12:15 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	ug/l	
10335	2-Hexanone	591-78-6	N.D.	3	10	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
10335	Isopropylbenzene	98-82-8	N.D.	1	5	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	10	1
10335	Methylene Chloride	75-09-2	N.D.	2	4	1
10335	Naphthalene	91-20-3	N.D.	1	5	1
10335	n-Propylbenzene	103-65-1	N.D.	1	5	1
10335	Styrene	100-42-5	N.D.	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1	1
10335	Toluene	108-88-3	N.D.	0.5	1	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	5	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	5	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	5	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	5	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	5	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1	1
10335	o-Xylene	95-47-6	N.D.	0.5	1	1
GC/MS	Semivolatiles SW-846	8270C	ug/l	ug/l	ug/l	
14249	Acenaphthene	83-32-9	N.D.	0.1	0.5	1
14249	Acenaphthylene	208-96-8	N.D.	0.1	0.5	1
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b)fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Benzo(k) fluoranthene	207-08-9	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Dibenz(a,h)anthracene	53-70-3	N.D.	0.1	0.5	1
14249	Fluoranthene	206-44-0	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
GC Vol	Latiles SW-846	8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	70	J 50	100	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843574

LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 12:15 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

MBO01

CAT No.	Analysis Name		CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Pe	troleum	SW-846	8015B	ug/l		ug/l	ug/l	
Hydro	carbons							
06609	TPH-DRO CA C10-C28		n.a.	N.D.		50	110	1
Metal	5	SW-846	6010B	mg/l		mg/l	mg/l	
07058	Manganese		7439-96-5	0.150		0.0018	0.0050	1
		SW-846	6010B	ug/l		ug/l	ug/l	
01743	Aluminum		7429-90-5	164	J	86.8	200	1
07046	Barium		7440-39-3	60.2		1.1	5.0	1
08014	Boron		7440-42-8	1,100		8.3	50.0	1
07049	Cadmium		7440-43-9	N.D.		0.49	5.0	1
01750	Calcium		7440-70-2	53,800		38.2	200	1
07051	Chromium		7440-47-3	N.D.		1.8	15.0	1
07053	Copper		7440-50-8	N.D.		4.1	10.0	1
01754	Iron		7439-89-6	182	J	74.7	200	1
07055	Lead		7439-92-1	N.D.		6.2	15.0	1
01757	Magnesium		7439-95-4	23,100		19.0	100	1
07060	Molybdenum		7439-98-7	N.D.		1.7	10.0	1
07061	Nickel		7440-02-0	3.9	J	2.8	10.0	1
10143	Phosphorus		7723-14-0	20.2	J	10.0	100	1
01765	Silicon		7440-21-3	17,100		19.2	50.0	1
07066	Silver		7440-22-4	N.D.		1.9	5.0	1
01767	Sodium		7440-23-5	102,000		173	1,000	1
12004	Sulfur		7704-34-9	11,700		83.3	500	1
07069	Tin		7440-31-5	N.D.		7.1	20.0	1
07070	Titanium		7440-32-6	5.8	J	1.3	10.0	1
07071	Vanadium		7440-62-2	24.9		1.6	5.0	1
07072	Zinc		7440-66-6	5.6	J	5.4	20.0	1
Wet C	hemistry	EPA 166	54A	mg/l		mg/l	mg/l	
00612	SGT-HEM (TPH)		n.a.	N.D.		1.4	5.0	1

#### Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT	Analysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Tim	ne		Factor
	8260 Full List w/ Sep. Xvlenes	SW-846 8260B	1	W170601AA	03/01/2017	11:49	Nicole S Lamoreaux	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-1-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Group # 1767544 Account # 13534

LL Sample # WW 8843574

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 12:15 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

		Lal	oratory Sa	mple Analys	is Record			
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W170601AA	03/01/2017		Nicole S Lamoreaux	
14249	PAHs 8270C Water	SW-846 8270C	1	17052WAD026	02/22/2017	21:49	Anthony P Bauer	1
07807	BNA Water Extraction	SW-846 3510C	1	17052WAD026	02/21/2017	17:15	Kate E Lutte	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	17055C20A	02/26/2017	20:02	Jeremy C Giffin	1
01146	GC VOA Water Prep	SW-846 5030B	1	17055C20A	02/26/2017	20:02	Jeremy C Giffin	1
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	170530011A	02/23/2017	22:22	Amy Lehr	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	170530011A	02/22/2017	22:45	Karen L Beyer	1
01743	Aluminum	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07046	Barium	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
08014	Boron	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07049	Cadmium	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
01750	Calcium	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07051	Chromium	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07053	Copper	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
01754	Iron	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07055	Lead	SW-846 6010B	1	170521848004	02/23/2017	21:43	Cindy M Gehman	1
01757	Magnesium	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07058	Manganese	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07060	Molybdenum	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07061	Nickel	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
10143	Phosphorus	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
	Silicon	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07066	Silver	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
01767	Sodium	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
12004	Sulfur	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07069	Tin	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07070	Titanium	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07071	Vanadium	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
07072	Zinc	SW-846 6010B	1	170521848004	02/22/2017	18:21	Cindy M Gehman	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	170521848004	02/21/2017	17:10	JoElla L Rice	1
00612	SGT-HEM (TPH)	EPA 1664A	1	17054807802A	02/23/2017	17:36	Huyen Dao-Kendig	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843575 LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 10:25 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.		6	20	1
10335	t-Amyl methyl ether	994-05-8	N.D.		0.5	1	1
10335	Benzene	71-43-2	N.D.		0.5	1	1
10335	Bromobenzene	108-86-1	N.D.		1	5	1
10335	Bromochloromethane	74-97-5	N.D.		1	5	1
10335	Bromodichloromethane	75-27-4	N.D.		0.5	1	1
10335	Bromoform	75-25-2	N.D.		0.5	4	1
10335	Bromomethane	74-83-9	N.D.		0.5	1	1
10335	2-Butanone	78-93-3	N.D.		3	10	1
10335	t-Butyl alcohol	75-65-0	N.D.		5	20	1
10335	n-Butylbenzene	104-51-8	N.D.		1	5	1
10335	sec-Butylbenzene	135-98-8	N.D.		1	5	1
10335	tert-Butylbenzene	98-06-6	N.D.		1	5	1
10335	Carbon Disulfide	75-15-0	N.D.		1	5	1
10335	Carbon Tetrachloride	56-23-5	0.9	J	0.5	1	1
10335	Chlorobenzene	108-90-7	N.D.		0.5	1	1
10335	Chloroethane	75-00-3	N.D.		0.5	1	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.		2	10	1
	2-Chloroethyl vinyl ether may preserve this sample.			was used to			
10335	Chloroform	67-66-3	N.D.		0.5	1	1
10335	Chloromethane	74-87-3	N.D.		0.5	1	1
10335	2-Chlorotoluene	95-49-8	N.D.		1	5	1
10335	4-Chlorotoluene	106-43-4	N.D.		1	5	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		2	5	1
10335	Dibromochloromethane	124-48-1	N.D.		0.5	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.		0.5	1	1
10335	Dibromomethane	74-95-3	N.D.		0.5	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.		1	5	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.		1	5	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.		1	5	1
10335	Dichlorodifluoromethane	75-71-8	N.D.		0.5	1	1
10335	1,1-Dichloroethane	75-34-3	N.D.		0.5	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10335	1,1-Dichloroethene	75-35-4	N.D.		0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.		0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.		0.5	1	1
10335	1,2-Dichloropropane	78-87-5	N.D.		0.5	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.		0.5	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.		0.5	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.		1	5	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.5	1	1
10335	Ethanol	64-17-5	N.D.		50	250	1
10335	Ethyl t-butyl ether	637-92-3	N.D.		0.5	1	1
10335	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10335	Freon 113	76-13-1	N.D.		2	10	1
10335	Hexachlorobutadiene	87-68-3	N.D.		2	5	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843575 LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 10:25 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	ug/l	
10335	2-Hexanone	591-78-6	N.D.	3	10	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
10335	Isopropylbenzene	98-82-8	N.D.	1	5	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	10	1
10335	Methylene Chloride	75-09-2	N.D.	2	4	1
10335	Naphthalene	91-20-3	N.D.	1	5	1
10335	n-Propylbenzene	103-65-1	N.D.	1	5	1
10335	Styrene	100-42-5	N.D.	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1	1
10335	Toluene	108-88-3	N.D.	0.5	1	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	5	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	5	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	5	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	5	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	5	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1	1
10335	o-Xylene	95-47-6	N.D.	0.5	1	1
GC/MS	Semivolatiles SW-846	8270C	ug/l	ug/l	ug/l	
14249	Acenaphthene	83-32-9	N.D.	0.1	0.5	1
14249	Acenaphthylene	208-96-8	N.D.	0.1	0.5	1
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b) fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Benzo(k)fluoranthene	207-08-9	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Dibenz(a,h)anthracene	53-70-3	N.D.	0.1	0.5	1
14249	Fluoranthene	206-44-0	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
GC Vol	latiles SW-846	8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843575 LL Group # 1767544

Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 10:25 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

MBO02

CAT No.	Analysis Name		CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
	troleum	SW-846	8015B	ug/l		ug/l	ug/l	
Hydro	carbons							
06609	TPH-DRO CA C10-C28		n.a.	57	J	50	110	1
Metal	5	SW-846	6010B	mg/l		mg/l	mg/l	
07058	Manganese		7439-96-5	N.D.		0.0018	0.0050	1
		SW-846	6010B	ug/l		ug/l	ug/l	
01743	Aluminum		7429-90-5	N.D.		86.8	200	1
07046	Barium		7440-39-3	43.2		1.1	5.0	1
08014	Boron		7440-42-8	383		8.3	50.0	1
07049	Cadmium		7440-43-9	N.D.		0.49	5.0	1
01750	Calcium		7440-70-2	51,400		38.2	200	1
07051	Chromium		7440-47-3	1.9	J	1.8	15.0	1
07053	Copper		7440-50-8	N.D.		4.1	10.0	1
01754	Iron		7439-89-6	N.D.		74.7	200	1
07055	Lead		7439-92-1	N.D.		6.2	15.0	1
01757	Magnesium		7439-95-4	22,300		19.0	100	1
07060	Molybdenum		7439-98-7	N.D.		1.7	10.0	1
07061	Nickel		7440-02-0	N.D.		2.8	10.0	1
10143	Phosphorus		7723-14-0	26.8	J	10.0	100	1
01765	Silicon		7440-21-3	17,300		19.2	50.0	1
07066	Silver		7440-22-4	N.D.		1.9	5.0	1
01767	Sodium		7440-23-5	111,000	)	173	1,000	1
12004	Sulfur		7704-34-9	15,200		83.3	500	1
07069	Tin		7440-31-5	N.D.		7.1	20.0	1
07070	Titanium		7440-32-6	2.0	J	1.3	10.0	1
07071	Vanadium		7440-62-2	34.0		1.6	5.0	1
07072	Zinc		7440-66-6	N.D.		5.4	20.0	1
Wet C	hemistry	EPA 166	54A	mg/l		mg/l	mg/l	
00612	SGT-HEM (TPH)		n.a.	N.D.		1.4	5.0	1

#### Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time		Analyst	Dilution Factor
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	W170601AA	03/01/2017	12:12	Nicole S Lamoreaux	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-2-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843575 LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 10:25 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

	Laboratory Sample Analysis Record										
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	me	Analyst	Dilution Factor			
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W170601AA	03/01/2017		Nicole S Lamoreaux				
14249	PAHs 8270C Water	SW-846 8270C	1	17052WAD026	02/22/2017	22:19	Anthony P Bauer	1			
07807	BNA Water Extraction	SW-846 3510C	1	17052WAD026	02/21/2017	17:15	Kate E Lutte	1			
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	17055C20A	02/26/2017	20:29	Jeremy C Giffin	1			
01146	GC VOA Water Prep	SW-846 5030B	1	17055C20A	02/26/2017	20:29	Jeremy C Giffin	1			
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	170530011A	02/23/2017	22:43	Amy Lehr	1			
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	170530011A	02/22/2017	22:45	Karen L Beyer	1			
01743	Aluminum	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07046	Barium	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
08014	Boron	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07049	Cadmium	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
01750	Calcium	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07051	Chromium	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07053	Copper	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
01754	Iron	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07055	Lead	SW-846 6010B	1	170521848004	02/23/2017	21:46	Cindy M Gehman	1			
01757	Magnesium	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07058	Manganese	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07060	Molybdenum	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07061	Nickel	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
10143	Phosphorus	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
01765	Silicon	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07066	Silver	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
01767	Sodium	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
12004	Sulfur	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07069	Tin	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07070		SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07071	Vanadium	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
07072	Zinc	SW-846 6010B	1	170521848004	02/22/2017	18:24	Cindy M Gehman	1			
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	170521848004	02/21/2017	17:10	JoElla L Rice	1			
00612	SGT-HEM (TPH)	EPA 1664A	1	17054807802A	02/23/2017	17:36	Huyen Dao-Kendig	1			

<sup>\*=</sup>This limit was used in the evaluation of the final result



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843576

LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 11:12 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l		ug/l	ug/l	
10335	Acetone	67-64-1	N.D.		6	20	1
10335	t-Amyl methyl ether	994-05-8	N.D.		0.5	1	1
10335	Benzene	71-43-2	N.D.		0.5	1	1
10335	Bromobenzene	108-86-1	N.D.		1	5	1
10335	Bromochloromethane	74-97-5	N.D.		1	5	1
10335	Bromodichloromethane	75-27-4	N.D.		0.5	1	1
10335	Bromoform	75-25-2	N.D.		0.5	4	1
10335	Bromomethane	74-83-9	N.D.		0.5	1	1
10335	2-Butanone	78-93-3	N.D.		3	10	1
10335	t-Butyl alcohol	75-65-0	N.D.		5	20	1
10335	n-Butylbenzene	104-51-8	N.D.		1	5	1
10335	sec-Butylbenzene	135-98-8	N.D.		1	5	1
10335	tert-Butylbenzene	98-06-6	N.D.		1	5	1
10335	Carbon Disulfide	75-15-0	N.D.		1	5	1
10335	Carbon Tetrachloride	56-23-5	0.8	J	0.5	1	1
10335	Chlorobenzene	108-90-7	N.D.		0.5	1	1
10335	Chloroethane	75-00-3	N.D.		0.5	1	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.		2	10	1
	2-Chloroethyl vinyl ether may preserve this sample.						
10335	Chloroform	67-66-3	0.6	J	0.5	1	1
10335	Chloromethane	74-87-3	N.D.		0.5	1	1
10335	2-Chlorotoluene	95-49-8	N.D.		1	5	1
10335	4-Chlorotoluene	106-43-4	N.D.		1	5	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.		2	5	1
10335	Dibromochloromethane	124-48-1	N.D.		0.5	1	1
10335	1,2-Dibromoethane	106-93-4	N.D.		0.5	1	1
10335	Dibromomethane	74-95-3	N.D.		0.5	1	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.		1	5	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.		1	5	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.		1	5	1
10335	Dichlorodifluoromethane	75-71-8	N.D.		0.5	1	1
10335	1,1-Dichloroethane	75-34-3	N.D.		0.5	1	1
10335	1,2-Dichloroethane	107-06-2	N.D.		0.5	1	1
10335	1,1-Dichloroethene	75-35-4	N.D.		0.5	1	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.		0.5	1	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.		0.5	1	1
10335	1,2-Dichloropropane	78-87-5	N.D.		0.5	1	1
10335	1,3-Dichloropropane	142-28-9	N.D.		0.5	1	1
10335	2,2-Dichloropropane	594-20-7	N.D.		0.5	1	1
10335	1,1-Dichloropropene	563-58-6	N.D.		1	5	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.5	1	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.5	1	1
10335	Ethanol	64-17-5	N.D.		50	250	1
10335	Ethyl t-butyl ether	637-92-3	N.D.		0.5	1	1
10335	Ethylbenzene	100-41-4	N.D.		0.5	1	1
10335	Freon 113	76-13-1	N.D.		2	10	1
10335	Hexachlorobutadiene	87-68-3	N.D.		2	5	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843576 LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 11:12 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS	Volatiles SW-846	8260B	ug/l	ug/l	ug/l	
10335	2-Hexanone	591-78-6	N.D.	3	10	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1	1
10335	Isopropylbenzene	98-82-8	N.D.	1	5	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	5	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	10	1
10335	Methylene Chloride	75-09-2	N.D.	2	4	1
10335	Naphthalene	91-20-3	N.D.	1	5	1
10335	n-Propylbenzene	103-65-1	N.D.	1	5	1
10335	Styrene	100-42-5	N.D.	1	5	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1	1
10335	Toluene	108-88-3	N.D.	0.5	1	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	5	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	5	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	5	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	5	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	5	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1	1
10335	m+p-Xylene	179601-23-1	N.D.	0.5	1	1
10335	o-Xylene	95-47-6	N.D.	0.5	1	1
GC/MS	Semivolatiles SW-846	8270C	ug/l	ug/l	ug/l	
14249	Acenaphthene	83-32-9	N.D.	0.1	0.5	1
14249	Acenaphthylene	208-96-8	N.D.	0.1	0.5	1
14249	Anthracene	120-12-7	N.D.	0.1	0.5	1
14249	Benzo(a)anthracene	56-55-3	N.D.	0.1	0.5	1
14249	Benzo(a)pyrene	50-32-8	N.D.	0.1	0.5	1
14249	Benzo(b) fluoranthene	205-99-2	N.D.	0.1	0.5	1
14249	Benzo(g,h,i)perylene	191-24-2	N.D.	0.1	0.5	1
14249	Benzo(k) fluoranthene	207-08-9	N.D.	0.1	0.5	1
14249	Chrysene	218-01-9	N.D.	0.1	0.5	1
14249	Dibenz(a,h)anthracene	53-70-3	N.D.	0.1	0.5	1
14249	Fluoranthene	206-44-0	N.D.	0.1	0.5	1
14249	Fluorene	86-73-7	N.D.	0.1	0.5	1
14249	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	0.1	0.5	1
14249	Naphthalene	91-20-3	N.D.	0.1	0.5	1
14249	Phenanthrene	85-01-8	N.D.	0.1	0.5	1
14249	Pyrene	129-00-0	N.D.	0.1	0.5	1
GC Vol	latiles SW-846	8015B	ug/l	ug/l	ug/l	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	100	1

<sup>\*=</sup>This limit was used in the evaluation of the final result



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843576

LL Group # 1767544 Account # 13534

Project Name: 373378 Tidewater Oakland

Submitted: 02/18/2017 09:50

Reported: 03/02/2017 15:46

Collected: 02/16/2017 11:12 by FT GHD

10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

MBO03

CAT No.	Analysis Name		CAS Number	Result		Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC Pe	troleum	SW-846	8015B	ug/l		ug/l	ug/l	
Hydro	carbons							
06609	TPH-DRO CA C10-C28		n.a.	N.D.		50	110	1
Metal	S	SW-846	6010B	mg/l		mg/l	mg/l	
07058	Manganese		7439-96-5	0.0071		0.0018	0.0050	1
		SW-846	6010B	ug/l		ug/l	ug/l	
01743	Aluminum		7429-90-5	N.D.		86.8	200	1
07046	Barium		7440-39-3	62.7		1.1	5.0	1
08014	Boron		7440-42-8	895		8.3	50.0	1
07049	Cadmium		7440-43-9	N.D.		0.49	5.0	1
01750	Calcium		7440-70-2	62,700		38.2	200	1
07051	Chromium		7440-47-3	1.8	J	1.8	15.0	1
07053	Copper		7440-50-8	N.D.		4.1	10.0	1
01754	Iron		7439-89-6	N.D.		74.7	200	1
07055	Lead		7439-92-1	N.D.		6.2	15.0	1
01757	Magnesium		7439-95-4	26,300		19.0	100	1
07060	Molybdenum		7439-98-7	N.D.		1.7	10.0	1
07061	Nickel		7440-02-0	N.D.		2.8	10.0	1
10143	Phosphorus		7723-14-0	21.9	J	10.0	100	1
01765	Silicon		7440-21-3	16,400		19.2	50.0	1
07066	Silver		7440-22-4	N.D.		1.9	5.0	1
01767	Sodium		7440-23-5	77,000		173	1,000	1
12004	Sulfur		7704-34-9	14,900		83.3	500	1
07069	Tin		7440-31-5	N.D.		7.1	20.0	1
07070	Titanium		7440-32-6	3.3	J	1.3	10.0	1
07071	Vanadium		7440-62-2	28.5		1.6	5.0	1
07072	Zinc		7440-66-6	N.D.		5.4	20.0	1
Wet C	hemistry	EPA 166	54A	mg/l		mg/l	mg/l	
00612	SGT-HEM (TPH)		n.a.	N.D.		1.4	5.0	1

#### Sample Comments

CA ELAP Lab Certification No. 2792

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

#### Laboratory Sample Analysis Record

CAT Ar	nalysis Name	Method	Trial#	Batch#	Analysis		Analyst	Dilution
No.					Date and Tim	e		Factor
	260 Full List w/ Sep.	SW-846 8260B	1	W170601AA	03/01/2017	12:36	Nicole S Lamoreaux	1



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

Sample Description: MW-3-W-170216 Grab Groundwater

Facility# 373378 CRAW

7600 MacArthur Blv-Oakland T10000003434

LL Sample # WW 8843576 LL Group # 1767544 Account # 13534

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10969 Trade Center Drive

Suite 107

Rancho Cordova CA 95670

	Laboratory Sample Analysis Record											
CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Ti	.me	Analyst	Dilution Factor				
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W170601AA	03/01/2017	12:36	Nicole S Lamoreaux	1				
14249	PAHs 8270C Water	SW-846 8270C	1	17052WAD026	02/22/2017	22:48	Anthony P Bauer	1				
07807	BNA Water Extraction	SW-846 3510C	1	17052WAD026	02/21/2017	17:15	Kate E Lutte	1				
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	17055C20A	02/26/2017	20:56	Jeremy C Giffin	1				
01146	GC VOA Water Prep	SW-846 5030B	1	17055C20A	02/26/2017	20:56	Jeremy C Giffin	1				
06609	TPH-DRO CA C10-C28	SW-846 8015B	1	170530011A	02/23/2017	23:05	Amy Lehr	1				
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	170530011A	02/22/2017	22:45	Karen L Beyer	1				
01743	Aluminum	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07046	Barium	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
08014	Boron	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07049	Cadmium	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
01750	Calcium	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07051	Chromium	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07053	Copper	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
01754	Iron	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07055	Lead	SW-846 6010B	1	170521848004	02/23/2017	21:49	Cindy M Gehman	1				
01757	Magnesium	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07058	Manganese	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07060	Molybdenum	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07061	Nickel	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
10143	Phosphorus	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
01765	Silicon	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07066	Silver	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
01767	Sodium	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
12004	Sulfur	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07069	Tin	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07070	Titanium	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07071	Vanadium	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
07072	Zinc	SW-846 6010B	1	170521848004	02/22/2017	18:27	Cindy M Gehman	1				
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	170521848004	02/21/2017	17:10	JoElla L Rice	1				
00612	SGT-HEM (TPH)	EPA 1664A	1	17054807802A	02/23/2017	17:36	Huyen Dao-Kendig	1				

<sup>\*=</sup>This limit was used in the evaluation of the final result



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

#### Method Blank

Analysis Name	Result	MDL**	LOQ
-	ug/l	ug/l	ug/l
Batch number: D170595AA	Sample number	r(s): 88435	73
Benzene	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Methyl Tertiary Butyl Ether	N.D.	0.5	1
Toluene	N.D.	0.5	1
Xylene (Total)	N.D.	0.5	1
Batch number: W170601AA	Sample number	(s): 88435	74-8843576
Acetone	N.D.	6	20
t-Amyl methyl ether	N.D.	0.5	1
Benzene	N.D.	0.5	1
Bromobenzene	N.D.	1	5
Bromochloromethane	N.D.	1	5
Bromodichloromethane	N.D.	0.5	1
Bromoform	N.D.	0.5	4
Bromomethane	N.D.	0.5	1
2-Butanone	N.D.	3	10
t-Butyl alcohol	N.D.	5	20
n-Butylbenzene	N.D.	1	5
sec-Butylbenzene	N.D.	1	5
tert-Butylbenzene	N.D.	1	5
Carbon Disulfide	N.D.	1	5
Carbon Tetrachloride	N.D.	0.5	1
Chlorobenzene	N.D.	0.5	1
Chloroethane	N.D.	0.5	1
2-Chloroethyl Vinyl Ether	N.D.	2	10
Chloroform	N.D.	0.5	1
Chloromethane	N.D.	0.5	1
2-Chlorotoluene	N.D.	1	5
4-Chlorotoluene	N.D.	1	5
1,2-Dibromo-3-chloropropane	N.D.	2	5
Dibromochloromethane	N.D.	0.5	1
1,2-Dibromoethane	N.D.	0.5	1
Dibromomethane	N.D.	0.5	1
1,2-Dichlorobenzene	N.D.	1	5
1,3-Dichlorobenzene	N.D.	1	5
1,4-Dichlorobenzene	N.D.	1	5
Dichlorodifluoromethane	N.D.	0.5	1
1,1-Dichloroethane	N.D.	0.5	1
1,2-Dichloroethane	N.D.	0.5	1
1,1-Dichloroethene	N.D.	0.5	1
cis-1,2-Dichloroethene	N.D.	0.5	1

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

#### Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
trans-1,2-Dichloroethene	N.D.	0.5	1
1,2-Dichloropropane	N.D.	0.5	1
1,3-Dichloropropane	N.D.	0.5	1
2,2-Dichloropropane	N.D.	0.5	1
1,1-Dichloropropene	N.D.	1	5
cis-1,3-Dichloropropene	N.D.	0.5	1
trans-1,3-Dichloropropene	N.D.	0.5	1
Ethanol	N.D.	50	250
Ethyl t-butyl ether	N.D.	0.5	1
Ethylbenzene	N.D.	0.5	1
Freon 113	N.D.	2	10
Hexachlorobutadiene	N.D.	2	5
2-Hexanone	N.D.	3	10
di-Isopropyl ether	N.D.	0.5	1
Isopropylbenzene	N.D.	1	5
p-Isopropyltoluene	N.D.	1	5
Methyl Tertiary Butyl Ether	N.D.	0.5	1
4-Methyl-2-pentanone	N.D.	3	10
Methylene Chloride	N.D.	2	4
Naphthalene	N.D.	1	5
n-Propylbenzene	N.D.	1	5
Styrene	N.D.	1	5
1,1,1,2-Tetrachloroethane	N.D.	0.5	1
1,1,2,2-Tetrachloroethane	N.D.	0.5	1
Tetrachloroethene	N.D.	0.5	1
Toluene	N.D.	0.5	1
1,2,3-Trichlorobenzene	N.D.	1	5
1,2,4-Trichlorobenzene	N.D.	1	5
1,1,1-Trichloroethane	N.D. N.D.	0.5 0.5	1 1
1,1,2-Trichloroethane Trichloroethene	N.D.	0.5	1
Trichlorofluoromethane	N.D.	0.5	1
1,2,3-Trichloropropane	N.D.	1	5
1,2,4-Trimethylbenzene	N.D.	1	5
1,3,5-Trimethylbenzene	N.D.	1	5
Vinyl Chloride	N.D.	0.5	1
m+p-Xylene	N.D.	0.5	1
o-Xylene	N.D.	0.5	1
Batch number: 17052WAD026	Sample number	c(s): 88435	574-8843576
Acenaphthene	N.D.	0.1	0.5
Acenaphthylene	N.D.	0.1	0.5
Anthracene	N.D.	0.1	0.5
Benzo(a) anthracene	N.D.	0.1	0.5
Benzo(a)pyrene	N.D.	0.1	0.5
Benzo(b) fluoranthene	N.D.	0.1	0.5
Benzo(g,h,i)perylene	N.D.	0.1	0.5
Benzo(k) fluoranthene	N.D.	0.1	0.5
Chrysene	N.D.	0.1	0.5

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Group Number: 1767544 Client Name: GHD

Reported: 03/02/2017 15:46

#### Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
Dibenz(a,h) anthracene Fluoranthene Fluorene Indeno(1,2,3-cd)pyrene Naphthalene Phenanthrene Pyrene	ug/1 N.D. N.D. N.D. N.D. N.D. N.D. N.D.	ug/1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	ug/1 0.5 0.5 0.5 0.5 0.5 0.5 0.5
Batch number: 17055C20A TPH-GRO N. CA water C6-C12	Sample number N.D.	(s): 88435 50	73-8843576 100
Batch number: 170530011A TPH-DRO CA C10-C28	Sample number N.D.	r(s): 88435 32	74-8843576 100
	mg/l	mg/l	mg/l
Batch number: 170521848004 Manganese	Sample number N.D. ug/l	(s): 88435 0.0018 ug/1	74-8843576 0.0050 <b>ug/1</b>
Aluminum Barium Boron Cadmium Calcium Chromium Copper Iron Lead Magnesium Molybdenum Nickel Phosphorus Silicon Silver Sodium Sulfur Tin Titanium Vanadium Zinc	N.D. N.D. N.D. N.D. N.D. N.D. N.D. N.D.	86.8 1.1 8.3 0.49 38.2 1.8 4.1 74.7 6.2 19.0 1.7 2.8 10.0 19.2 1.9 173 83.3 7.1 1.3 1.6 5.4 mg/1	200 5.0 50.0 50.0 50.0 200 15.0 10.0 200 15.0 100 50.0 5.0 1,000 50.0 20.0 10.0 5.0 20.0
Batch number: 17054807802A SGT-HEM (TPH)	Sample number	•	

#### LCS/LCSD

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

#### LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: D170595AA	Sample numbe	r(a) · 88435	.73						
Benzene	20	18.85	,,,,		94		78-120		
Ethylbenzene	20	17.82			89		78-120		
Methyl Tertiary Butyl Ether	20	20.3			102		75-120		
Toluene	20	18.1			90		80-120		
Xylene (Total)	60	54.2			90		80-120		
Batch number: W170601AA	Sample numbe	r(s): 88435	574-8843576						
Acetone	150	225.94			151		50-168		
t-Amyl methyl ether	20	18.21			91		67-120		
Benzene	20	20.44			102		78-120		
Bromobenzene	20	19.29			96		80-120		
Bromochloromethane	20	17.85			89		80-125		
Bromodichloromethane	20	16.45			82		80-120		
Bromoform	20	14.34			72		64-120		
Bromomethane	20	12.08			60		49-121		
2-Butanone	150	174.11			116		53-140		
t-Butyl alcohol	200	157.44			79		68-122		
n-Butylbenzene	20	19.47			97		76-120		
sec-Butylbenzene	20	20.29			101		77-120		
tert-Butylbenzene	20	19.45			97		78-120		
Carbon Disulfide	20	19.06			95		63-122		
Carbon Tetrachloride	20	16.33			82		76-123		
Chlorobenzene	20	19.1			95		80-120		
Chloroethane	20	15.47			77		51-121		
2-Chloroethyl Vinyl Ether	20	17.27			86		55-121		
Chloroform	20	18.74			94		80-120		
Chloromethane	20	17.11			86		57-120		
2-Chlorotoluene	20	20.01			100		80-120		
4-Chlorotoluene	20	19.07			95		80-120		
1,2-Dibromo-3-chloropropane	20	17.38			87		59-120		
Dibromochloromethane	20	15.85			79		78-120		
1,2-Dibromoethane	20	19.43			97		75-120		
Dibromomethane	20	17.87			89		80-120		
1,2-Dichlorobenzene	20	18.1			91		80-120		
1,3-Dichlorobenzene	20	19.06			95		80-120		
1,4-Dichlorobenzene	20	18.69			93		80-120		
Dichlorodifluoromethane	20	15.99			80		54-122		
1,1-Dichloroethane	20	20.92			105		80-120		
1,2-Dichloroethane	20	19.35			97		66-128		
1,1-Dichloroethene	20	22.1			110		76-124		
cis-1,2-Dichloroethene	20	19.14			96		80-120		
trans-1,2-Dichloroethene	20	19.65			98		80-120		
1,2-Dichloropropane	20	20.74			104		80-120		
1,3-Dichloropropane	20	20.61			103		80-120		
2,2-Dichloropropane	20	17			85		66-128		
1,1-Dichloropropene	20	19.06			95		78-120		
cis-1,3-Dichloropropene	20	18.54			93		75-120		

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

#### LCS/LCSD (continued)

Rithanol	Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Sthyll-thutyl ether   20	trans-1,3-Dichloropropene	20	18.34			92		76-120		
Ethylbenzene		500	478.66			96		35-165		
Precident   13	Ethyl t-butyl ether	20	18.66			93		69-120		
Precident   13	Ethylbenzene	20	19.72			99		78-120		
2-Hexanone		20	20.12			101		68-129		
di-sopropy  ether	Hexachlorobutadiene	20	22.47			112		60-120		
di-lappropyl ether	2-Hexanone	100				111				
Isopropylbenzene	di-Isopropyl ether	20				106				
D-Isopropy toluene										
Methyl Tertiary Butyl Ether		20				95				
4-Methyln-2-pentanone         100         104.69         56-131           Methylnechloride         20         19.1         95         80-120           Naphthalene         20         17.78         89         59-120           n-Propylbenzene         20         17.79         85         80-120           1,1,2-Tetrachloroethane         20         17.15         86         80-120           1,1,2-Tetrachloroethane         20         18.17         91         80-120           Tetrachloroethene         20         18.17         91         80-129           Tetrachloroethene         20         18.17         91         80-120           1,2,4-Trichlorobenzene         20         18.94         95         51-120           1,2,4-Trichlorobenzene         20         19.84         95         51-120           1,1,1-Trichloroethane         20         19.63         98         80-120           1,1,1-Trichloroethane         20         19.63         98         80-120           Trichloroethane         20         19.79         99         80-120           Trichloropethane         20         19.79         99         80-120           Trichloropethane         20		20				97				
Methylene Chloride         20         19.1         95         80-120           Naphthalene         20         17.78         89         59-120           n-Propylbenzene         20         17.09         85         80-120           1,1,2-Tetrachloroethane         20         17.05         86         80-120           1,1,2-Tetrachloroethane         20         20.69         103         72-120           Tetrachloroethane         20         20.69         103         72-120           Tetrachloroethane         20         20.34         102         80-129           Toluene         20         20.34         102         80-120           1,2,3-Trichloroebazene         20         19.05         95         58-120           1,1,1-Trichloroethane         20         19.05         95         58-120           1,1,1-Trichloroethane         20         19.07         95         80-120           Trichlorofluoromethane         20         19.07         95         80-120           Trichloropropane         20         19.71         99         75-120           1,2,4-Trimethylbenzene         20         19.75         99         80-120           1,2,4-Trimethylbenzene										
Naphthalene										
n-Propylbenzene   20	2									
Styre	-									
1,1,1,2-Tetrachloroethane	= =									
1,1,2,2-Tetrachloroethane	-									
Tetrachloroethene 20 18.17 91 80-129 Toluene 20 20.34 102 80-120 1,2,3-Trichlorobenzene 20 18.94 95 51-120 1,2,4-Trichloroethane 20 19.05 95 58-120 1,1,1-Trichloroethane 20 19.63 98 80-120 Trichloroethene 20 19.63 98 80-120 Trichloroethene 20 19.63 98 80-120 Trichloroethene 20 19.70 95 80-120 Trichloroethene 20 19.70 95 80-120 Trichloroethene 20 19.71 95 80-120 Trichlorofluoromethane 20 19.79 99 80-120 1,2,4-Trimethylbenzene 20 19.79 99 80-120 1,3,5-Trimethylbenzene 20 19.71 999 75-120 1,3,5-Trimethylbenzene 20 19.5 98 75-120 Vinyl Chloride 20 16.66 83 63-121 mp-Xylene 40 37.58 98 75-120 o-Xylene 20 18.02 90 80-120  Batch number: 17052WAD026 Sample number(s): 8843574-8843576 Acenaphthene 50 41.02 50 44.17 82 88 64-121 7 30 Acenaphthene 50 41.09 50 44.36 82 89 63-120 8 30 Anthracene 50 46.06 50 47.87 92 96 72-120 4 30 Benzo (a) anthracene 50 47.52 50 46.8 91 94 71-119 2 30 Benzo (a) pyrene 50 45.74 50 46.8 91 94 71-119 2 30 Benzo (b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo (b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo (b) fluoranthene 50 47.85 50 49 96 98 73-121 2 30 Benzo (b) fluoranthene 50 47.85 50 49 96 98 73-121 2 30 Benzo (b) fluoranthene 50 49.63 50 51 99 102 75-129 3 30 Benzo (b) fluoranthene 50 49.63 50 51 99 102 75-129 3 30 Benzo (b) fluoranthene 50 49.63 50 51 99 102 75-129 3 30 Benzo (b) fluoranthene 50 49.63 50 51 99 102 75-129 3 30 Bibnza (a, h) anthracene 50 49.66 50 49.62 96 99 74-126 3 30 Bibnza (a, h) anthracene 50 49.63 50 51 99 102 75-129 3 30 Bibnza (a, h) anthracene 50 49.61 50 49.62 96 99 74-126 3 30 Bibnza (a, h) anthracene 50 49.61 50 49.62 96 99 74-126 3 30 Bibnza (a, h) anthracene 50 49.61 50 49.62 96 99 74-126 3 30 Bibnza (a, h) anthracene 50 42.91 50 45.69 86 91 67-120 6 30										
Toluene 20 20.34 102 80-120 1.2,3-Trichlorobenzene 20 18.94 95 51-120 1.2,4-Trichlorobenzene 20 19.05 95 58-120 1.1,1-Trichlorobenzene 20 19.05 95 58-120 1.1,1-Trichlorobenzene 20 19.63 98 80-120 1.1,2-Trichlorobenzene 20 19.63 98 80-120 1.1,2-Trichlorobenzene 20 19.07 95 80-120 1.1,2-Trichlorobenzene 20 19.07 95 80-120 1.2,3-Trichloropropane 20 19.79 99 80-120 1.2,4-Trimethylbenzene 20 19.79 99 80-120 1.2,4-Trimethylbenzene 20 19.79 99 80-120 1.2,4-Trimethylbenzene 20 19.56 98 75-120 1.3,5-Trimethylbenzene 20 19.58 98 75-120 1.3,5-Trimethylbenzene 20 19.56 83 63-121 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
1,2,3-Trichlorobenzene										
1,2,4-Trichlorobenzene										
1,1,1-Trichloroethane										
1,1,2-Trichloroethane										
Trichloroethene 20 19.07 95 80-120  Trichlorofluoromethane 20 13.43 67 57-134 1,2,3-Trichloropropane 20 19.79 99 80-120 1,2,4-Trimethylbenzene 20 19.71 99 75-120 1,3,5-Trimethylbenzene 20 19.5 98 75-120 1,3,5-Trimethylbenzene 20 19.5 98 75-120 1,3,5-Trimethylbenzene 20 18.66 83 63-121 m+p-Xylene 40 37.58 94 80-120 o-Xylene 20 18.02 90 80-120										
Trichlorofluoromethane 20 13.43 67 57-134 1,2,3-Trichloropropane 20 19.79 99 80-120 1,2,4-Trimethylbenzene 20 19.71 999 75-120 1,3,5-Trimethylbenzene 20 19.5 98 75-120 1,3,5-Trimethylbenzene 20 19.5 98 75-120 Vinyl Chloride 20 16.66 83 63-121 MHP-Xylene 40 37.58 94 80-120 O-Xylene 20 18.02 90 80-120 Vinyl Chloride 20 18.02										
1,2,3-Trichloropropane 20 19.79 99 80-120 1,2,4-Trimethylbenzene 20 19.71 99 75-120 1,3,5-Trimethylbenzene 20 19.5 98 75-120 Vinyl Chloride 20 16.66 83 63-121 m+p-Xylene 40 37.58 94 80-120 o-Xylene 20 18.02 90 80-120   ug/l ug/l ug/l  Batch number: 17052WAD026 Sample number(s): 8843574-8843576 Acenaphthene 50 41.02 50 44.16 82 89 63-120 8 30 Anthracene 50 41.09 50 44.36 82 89 63-120 8 30 Anthracene 50 46.06 50 47.87 92 96 72-120 4 30 Benzo(a) anthracene 50 47.52 50 46.8 91 94 71-119 2 30 Benzo(a) pyrene 50 47.85 50 49 96 98 72-124 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 73-121 2 30 Chrysene 50 49.63 50 51 99 102 75-129 3 30 Chrysene 50 49.63 50 51 99 102 75-129 3 30 Fluoranthene 50 45.7 50 46.44 91 93 65-126 2 30 Fluoranthene 50 48.16 50 49.62 96 99 74-126 3 30 Fluoranthene 50 48.16 50 49.62 96 99 74-126 3 30 Fluoranthene 50 48.16 50 49.62 96 99 74-126 3 30 Fluoranthene 50 48.16 50 49.62 96 99 74-126 3 30 Fluoranthene 50 48.16 50 49.62 96 99 74-126 3 30 Fluoranthene 50 42.91 50 45.69 86 91 67-120 6 30										
1,2,4-Trimethylbenzene 20 19.71 999 75-120 1,3,5-Trimethylbenzene 20 19.5 98 75-120 Vinyl Chloride 20 16.66 83 63-121 m+p-Xylene 40 37.58 94 80-120 o-Xylene 20 18.02 90 80-120   ug/l ug/l ug/l ug/l  Batch number: 17052WAD026 Sample number(s): 8843574-8843576 Acenaphthene 50 41.02 50 44.17 82 88 64-121 7 30 Acenaphthylene 50 41.09 50 44.36 82 89 63-120 8 30 Anthracene 50 46.06 50 47.87 92 96 72-120 4 30 Benzo(a) anthracene 50 47.52 50 48.54 95 97 74-124 2 30 Benzo(a) pyrene 50 45.74 50 46.8 91 94 71-119 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo(b) fluoranthene 50 47.8 50 46.29 50 47.83 93 96 61-124 3 30 Benzo(b) fluoranthene 50 47.8 50 49 96 98 73-121 2 30 Chrysene 50 49.63 50 51 99 102 75-129 3 30 Dibenz(a,h) anthracene 50 48.16 50 49.62 96 99 74-126 3 30 Fluorene 50 48.16 50 49.62 96 99 74-126 3 30 Fluorene 50 48.16 50 49.62 96 99 74-126 3 30										
1,3,5-Trimethylbenzene 20 19.5 98 75-120 Vinyl Chloride 20 16.66 83 63-121 m+p-Xylene 40 37.58 94 80-120 o-Xylene 20 18.02 90 80-120   ug/l ug/l ug/l ug/l  Batch number: 17052WAD026 Sample number(s): 8843574-8843576 Acenaphthylene 50 41.02 50 44.36 82 89 63-120 8 30 Anthracene 50 41.09 50 44.36 82 89 63-120 8 30 Anthracene 50 46.06 50 47.87 92 96 72-120 4 30 Benzo(a) anthracene 50 47.52 50 48.54 95 97 74-124 2 30 Benzo(a) pyrene 50 45.74 50 46.8 91 94 71-119 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo(g, h, i) perylene 50 46.29 50 47.83 93 96 61-124 3 30 Benzo(k) fluoranthene 50 47.8 50 49 96 98 73-121 2 30 Chrysene 50 49.63 50 51 99 102 75-129 3 30 Chrysene 50 49.63 50 49 96 98 73-121 2 30 Chrysene 50 49.63 50 49 96 98 73-121 2 30 Chiporanthene 50 45.7 50 46.44 91 93 65-126 2 30 Fluorene 50 48.16 50 49.62 96 99 74-126 3 30 Fluorene 50 42.91 50 45.69 86 91 67-120 6 30										
Vinyl Chloride         20         16.66         83         63-121           m+p-Xylene         40         37.58         94         80-120           o-Xylene         20         18.02         90         80-120           ug/l         ug/l         ug/l           Batch number: 17052WAD026         Sample number(s): 8843574-8843576         82         88         64-121         7         30           Acenaphthene         50         41.02         50         44.36         82         89         63-120         8         30           Acenaphthylene         50         41.09         50         44.36         82         89         63-120         8         30           Anthracene         50         46.06         50         47.87         92         96         72-120         4         30           Benzo(a) anthracene         50         47.52         50         48.54         95         97         74-124         2         30           Benzo(b) fluoranthene         50         47.85         50         49         96         98         72-124         2         30           Benzo(g, h, i) perylene         50         47.85         50 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>										
m+p-Xylene         40         37.58         94         80-120           o-Xylene         20         18.02         90         80-120           ug/l         ug/l         ug/l           Batch number: 17052WAD026         Sample number(s): 8843574-8843576           Acenaphthene         50         41.02         50         44.17         82         88         64-121         7         30           Acenaphthylene         50         41.09         50         44.36         82         89         63-120         8         30           Anthracene         50         46.06         50         47.87         92         96         72-120         4         30           Benzo (a) anthracene         50         47.52         50         48.54         95         97         74-124         2         30           Benzo (b) fluoranthene         50         47.85         50         49         96         98         72-124         2         30           Benzo (g, h, i) perylene         50         47.8         50         49         96         98         73-121         2         30           Chrysene         50         47.8         50 </td <td></td>										
very lene         20         18.02         90         80-120           beatch number: 17052WAD026         Sample number(s): 8843574-8843576         30		= -								
ug/l         ug/l         ug/l         ug/l           Batch number: 17052WAD026         Sample number(s): 8843574-8843576         Acenaphthene         50         41.02         50         44.17         82         88         64-121         7         30           Acenaphthylene         50         41.09         50         44.36         82         89         63-120         8         30           Anthracene         50         46.06         50         47.87         92         96         72-120         4         30           Benzo(a) anthracene         50         47.52         50         48.54         95         97         74-124         2         30           Benzo(a) pyrene         50         45.74         50         46.8         91         94         71-119         2         30           Benzo(b) fluoranthene         50         47.85         50         49         96         98         72-124         2         30           Benzo(g,h,i) perylene         50         46.29         50         47.83         93         96         61-124         3         30           Benzo(k) fluoranthene         50         47.8         50         49         96										
Batch number: 17052WAD026 Sample number(s): 8843574-8843576 Acenaphthene 50 41.02 50 44.17 82 88 64-121 7 30 Acenaphthylene 50 41.09 50 44.36 82 89 63-120 8 30 Anthracene 50 46.06 50 47.87 92 96 72-120 4 30 Benzo(a) anthracene 50 47.52 50 48.54 95 97 74-124 2 30 Benzo(a) pyrene 50 45.74 50 46.8 91 94 71-119 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo(g,h,i) perylene 50 46.29 50 47.83 93 96 61-124 3 30 Benzo(k) fluoranthene 50 47.8 50 49 96 98 73-121 2 30 Chrysene 50 49.63 50 49 96 98 73-121 2 30 Dibenz(a,h) anthracene 50 45.7 50 46.44 91 93 65-126 2 30 Fluoranthene 50 48.16 50 49.62 96 99 74-126 3 30 Fluorene 50 42.91 50 45.69 86 91 67-120 6 30	O-kylene	20	10.02			90		00-120		
Acenaphthene 50 41.02 50 44.17 82 88 64-121 7 30 Acenaphthylene 50 41.09 50 44.36 82 89 63-120 8 30 Anthracene 50 46.06 50 47.87 92 96 72-120 4 30 Benzo(a) anthracene 50 47.52 50 48.54 95 97 74-124 2 30 Benzo(a) pyrene 50 45.74 50 46.8 91 94 71-119 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo(g,h,i) perylene 50 46.29 50 47.83 93 96 61-124 3 30 Benzo(k) fluoranthene 50 47.8 50 49 96 98 73-121 2 30 Benzo(k) fluoranthene 50 47.8 50 49 96 98 73-121 2 30 Chrysene 50 49.63 50 51 99 102 75-129 3 30 Dibenz(a,h) anthracene 50 45.7 50 46.44 91 93 65-126 2 30 Fluorene 50 48.16 50 49.62 96 99 74-126 3 30 Fluorene 50 42.91 50 45.69 86 91 67-120 6 30		ug/l	ug/l	ug/l	ug/l					
Acenaphthylene 50 41.09 50 44.36 82 89 63-120 8 30 Anthracene 50 46.06 50 47.87 92 96 72-120 4 30 Benzo (a) anthracene 50 47.52 50 48.54 95 97 74-124 2 30 Benzo (a) pyrene 50 45.74 50 46.8 91 94 71-119 2 30 Benzo (b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo (g, h, i) perylene 50 46.29 50 47.83 93 96 61-124 3 30 Benzo (k) fluoranthene 50 47.8 50 49 96 98 73-121 2 30 Chrysene 50 49.63 50 51 99 69 98 73-121 2 30 Chrysene 50 49.63 50 51 99 102 75-129 3 30 Dibenz (a, h) anthracene 50 48.16 50 49.62 96 99 74-126 3 30 Fluoranthene 50 42.91 50 45.69 86 91 67-120 6 30	Batch number: 17052WAD026	Sample numbe	er(s): 88435	74-8843576						
Anthracene 50 46.06 50 47.87 92 96 72-120 4 30 Benzo(a) anthracene 50 47.52 50 48.54 95 97 74-124 2 30 Benzo(a) pyrene 50 45.74 50 46.8 91 94 71-119 2 30 Benzo(b) fluoranthene 50 47.85 50 49 96 98 72-124 2 30 Benzo(g,h,i) perylene 50 46.29 50 47.83 93 96 61-124 3 30 Benzo(k) fluoranthene 50 47.8 50 49 96 98 73-121 2 30 Chrysene 50 49.63 50 49 96 98 73-121 2 30 Dibenz(a,h) anthracene 50 45.7 50 46.44 91 93 65-126 2 30 Fluoranthene 50 48.16 50 49.62 96 99 74-126 3 30 Fluorene 50 42.91 50 45.69 86 91 67-120 6 30	Acenaphthene	50	41.02	50	44.17	82	88	64-121	7	30
Benzo (a) anthracene       50       47.52       50       48.54       95       97       74-124       2       30         Benzo (a) pyrene       50       45.74       50       46.8       91       94       71-119       2       30         Benzo (b) fluoranthene       50       47.85       50       49       96       98       72-124       2       30         Benzo (g, h, i) perylene       50       46.29       50       47.83       93       96       61-124       3       30         Benzo (k) fluoranthene       50       47.8       50       49       96       98       73-121       2       30         Chrysene       50       49.63       50       51       99       102       75-129       3       30         Dibenz (a, h) anthracene       50       45.7       50       46.44       91       93       65-126       2       30         Fluoranthene       50       48.16       50       49.62       96       99       74-126       3       30         Fluorene       50       42.91       50       45.69       86       91       67-120       6       30	Acenaphthylene	50	41.09	50	44.36	82	89	63-120	8	30
Benzo (a) pyrene     50     45.74     50     46.8     91     94     71-119     2     30       Benzo (b) fluoranthene     50     47.85     50     49     96     98     72-124     2     30       Benzo (g,h,i) perylene     50     46.29     50     47.83     93     96     61-124     3     30       Benzo (k) fluoranthene     50     47.8     50     49     96     98     73-121     2     30       Chrysene     50     49.63     50     51     99     102     75-129     3     30       Dibenz (a,h) anthracene     50     45.7     50     46.44     91     93     65-126     2     30       Fluoranthene     50     48.16     50     49.62     96     99     74-126     3     30       Fluorene     50     42.91     50     45.69     86     91     67-120     6     30	Anthracene	50	46.06	50	47.87	92	96	72-120	4	30
Benzo (b) fluoranthene       50       47.85       50       49       96       98       72-124       2       30         Benzo (g,h,i) perylene       50       46.29       50       47.83       93       96       61-124       3       30         Benzo (k) fluoranthene       50       47.8       50       49       96       98       73-121       2       30         Chrysene       50       49.63       50       51       99       102       75-129       3       30         Dibenz (a,h) anthracene       50       45.7       50       46.44       91       93       65-126       2       30         Fluoranthene       50       48.16       50       49.62       96       99       74-126       3       30         Fluorene       50       42.91       50       45.69       86       91       67-120       6       30	Benzo(a)anthracene	50	47.52	50	48.54	95	97	74-124	2	30
Benzo (g,h,i) perylene       50       46.29       50       47.83       93       96       61-124       3       30         Benzo (k) fluoranthene       50       47.8       50       49       96       98       73-121       2       30         Chrysene       50       49.63       50       51       99       102       75-129       3       30         Dibenz (a,h) anthracene       50       45.7       50       46.44       91       93       65-126       2       30         Fluoranthene       50       48.16       50       49.62       96       99       74-126       3       30         Fluorene       50       42.91       50       45.69       86       91       67-120       6       30	Benzo(a)pyrene	50	45.74	50	46.8	91	94	71-119	2	30
Benzo (k) fluoranthene     50     47.8     50     49     96     98     73-121     2     30       Chrysene     50     49.63     50     51     99     102     75-129     3     30       Dibenz (a,h) anthracene     50     45.7     50     46.44     91     93     65-126     2     30       Fluoranthene     50     48.16     50     49.62     96     99     74-126     3     30       Fluorene     50     42.91     50     45.69     86     91     67-120     6     30	Benzo(b)fluoranthene	50	47.85	50	49	96	98	72-124	2	30
Benzo (k) fluoranthene     50     47.8     50     49     96     98     73-121     2     30       Chrysene     50     49.63     50     51     99     102     75-129     3     30       Dibenz (a,h) anthracene     50     45.7     50     46.44     91     93     65-126     2     30       Fluoranthene     50     48.16     50     49.62     96     99     74-126     3     30       Fluorene     50     42.91     50     45.69     86     91     67-120     6     30		50		50	47.83	93	96		3	30
Chrysene     50     49.63     50     51     99     102     75-129     3     30       Dibenz(a,h)anthracene     50     45.7     50     46.44     91     93     65-126     2     30       Fluoranthene     50     48.16     50     49.62     96     99     74-126     3     30       Fluorene     50     42.91     50     45.69     86     91     67-120     6     30						96				
Dibenz (a,h) anthracene     50     45.7     50     46.44     91     93     65-126     2     30       Fluoranthene     50     48.16     50     49.62     96     99     74-126     3     30       Fluorene     50     42.91     50     45.69     86     91     67-120     6     30		50	49.63	50	51	99	102	75-129	3	30
Fluoranthene 50 48.16 50 49.62 96 99 74-126 3 30 Fluorene 50 42.91 50 45.69 86 91 67-120 6 30	4									
Fluorene 50 42.91 50 45.69 86 91 67-120 6 30	· · ·					96				
	Fluorene	50	42.91	50	45.69	86	91	67-120	6	30
, , , ,	Indeno(1,2,3-cd)pyrene	50	46.18	50	46.89	92	94	63-122	2	30

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

LCS/LCSD	(continued)
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Analysis Name	LCS Spike Added ug/1	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Naphthalene	50	37.72	50	39.13	75	78	54-109	4	30
Phenanthrene	50	44.27	50	47.11	89	94	72-117	6	30
Pyrene	50	45.86	50	47.25	92	94	69-119	3	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 17055C20A	Sample number	r(s): 88435	73-8843576						
TPH-GRO N. CA water C6-C12	1100	1038.35	1100	1082.07	94	98	80-120	4	30
	ug/l	ug/l	ug/l	ug/l					
Batch number: 170530011A	Sample number	r(s): 88435	74-8843576						
TPH-DRO CA C10-C28	1600	1299.52	1600	1307.77	81	82	53-115	1	20
	mg/l	mg/l	mg/l	mg/l					
Batch number: 170521848004	Sample number	r(s): 88435	74-8843576						
Manganese	0.500	0.523			105		80-120		
	ug/l	ug/l	ug/l	ug/l					
Batch number: 170521848004	Sample number	r(s): 88435	74-8843576						
Aluminum	2000	2144.78			107		80-120		
Barium	2000	2046.42			102		80-120		
Boron	2000	1934.47			97		80-120		
Cadmium	50	51.58			103		80-120		
Calcium	4000	4170.68			104		80-120		
Chromium	200	193.77			97		80-120		
Copper	250	254.37			102		80-120		
Iron	1000	1044.55			104		80-120		
Lead	150	151.47			101		80-120		
Magnesium	2000	2121.75			106		80-120		
Molybdenum	2000	1964.41			98		80-120		
Nickel	500	515.55			103		80-120		
Phosphorus	1000	1003.41			100		80-120		
Silicon	1000	1051.22			105		80-120		
Silver	50	47.42			95		80-120		
Sodium	10000	10535.38			105		80-120		
Sulfur	1000	1073.3			107		80-120		
Tin	4000	3791.69			95		80-120		
Titanium	1000	973.32			97		80-120		
Vanadium	500	504.17			101		80-120		
Zinc	500	513.52			103		80-120		
	mg/l	mg/l	mg/l	mg/l					
Batch number: 17054807802A	Sample number	r(s): 88435	74-8843576						
SGT-HEM (TPH)	20	15	20	13.6	75	68	64-132	10	18

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

#### MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc	MS Spike Added	MS Conc	MSD Spike Added	MSD Conc	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
	ug/l	ug/l	ug/1	ug/l	ug/l	3Rec	3ReC	LIMICS		Max
Batch number: D170595AA	Sample numb		•	-	٠.					
Benzene	37.54	20	58.39	20	56.35	104	94	78-120	4	30
Ethylbenzene	0.588	20	20.11	20	19.22	98	93	78-120	4	30
Methyl Tertiary Butyl Ether	4.72	20	25.35	20	25.19	103	102	75-120	1	30
Toluene	N.D.	20	19.29	20	18.84	96	94	80-120	2	30
Xylene (Total)	N.D.	60	59.22	60	57.84	99	96	80-120	2	30
Batch number: W170601AA	G 1	(-) 0043		EZC IBIODIC	D042410					
Acetone W1/0601AA	Sample numb	150	138.03	150	141.28	92	94	50-168	2	30
t-Amyl methyl ether	N.D.	20	18.44	20	18.64	92	93	67-120	1	30
Benzene	N.D.	20	21.14	20	20.95	106	105	78-120	1	30
Bromobenzene	N.D.	20	19.76	20	19.74	99	99	80-120	0	30
Bromochloromethane	N.D.	20	18.9	20	19.74	95	95	80-125	1	30
Bromodichloromethane	N.D.	20	17.17	20	17.11	86	86	80-125	0	30
Bromoform	N.D.	20	14.61	20	14.81	73	74	64-120	1	30
Bromomethane	N.D.	20	11.1	20	11.01	55	55	49-121	1	30
2-Butanone	N.D.	150	172.31	150	174.37	115	116	53-140	1	30
t-Butyl alcohol	251.78	200	523.99	200	525.62	136*	137*	68-122	0	30
n-Butylbenzene	N.D.	20	21.02	200	20.58	105	103	76-120	2	30
sec-Butylbenzene	N.D.	20	22.56	20	22.03	113	110	77-120	2	30
tert-Butylbenzene	N.D.	20	20.85	20	20.59	104	103	78-120	1	30
Carbon Disulfide	N.D.	20	18.47	20	18.38	92	92	63-122	1	30
Carbon Tetrachloride	N.D.	20	16.82	20	16.52	84	83	76-123	2	30
Chlorobenzene	N.D.	20	19.76	20	19.52	99	98	80-120	1	30
Chloroethane	N.D.	20	16.3	20	15.74	82	79	51-121	4	30
2-Chloroethyl Vinyl Ether	N.D.	20	N.D.	20	N.D.	0*	0*	55-121	0	30
Chloroform	N.D.	20	19.5	20	19.5	98	97	80-120	0	30
Chloromethane	N.D.	20	16.95	20	16.7	85	83	57-120	2	30
2-Chlorotoluene	N.D.	20	20.79	20	20.84	104	104	80-120	0	30
4-Chlorotoluene	N.D.	20	20.79	20	19.6	104	98	80-120	2	30
1,2-Dibromo-3-chloropropane	N.D.	20	20.29	20	20.09	101	100	59-120	1	30
Dibromochloromethane	N.D.	20	15.86	20	15.73	79	79	78-120	1	30
1,2-Dibromoethane	N.D.	20	19.16	20	19.06	96	95	75-120	1	30
Dibromomethane	N.D.	20	18.29	20	18.52	91	93	80-120	1	30
1,2-Dichlorobenzene	N.D.	20	19.01	20	18.69	95	93	80-120	2	30
1,3-Dichlorobenzene	N.D.	20	19.66	20	19.47	98	97	80-120	1	30
1,4-Dichlorobenzene	N.D.	20	19.74	20	19.53	99	98	80-120	1	30
Dichlorodifluoromethane	N.D.	20	16.35	20	16.09	82	80	54-122	2	30
1,1-Dichloroethane	N.D.	20	21.57	20	20.85	108	104	80-120	3	30
1,2-Dichloroethane	4.67	20	24.73	20	24.3	100	98	66-128	2	30
1,1-Dichloroethene	N.D.	20	21.63	20	21.39	108	107	76-124	1	30
cis-1,2-Dichloroethene	N.D.	20	19.6	20	19.87	98	99	80-120	1	30
trans-1,2-Dichloroethene	N.D.	20	20.54	20	20.45	103	102	80-120	0	30
1,2-Dichloropropane	N.D.	20	20.34	20	21.33	105	107	80-120	2	30
1,3-Dichloropropane	N.D.	20	20.66	20	20.5	103	102	80-120	1	30
2,2-Dichloropropane	N.D.	20	17.85	20	17.39	89	87	66-128	3	30
2,2 Dicitiotopropane	14.10.	20	11.00	20	11.00	0,5	0 /	30 IZ0	J	50

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

#### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
1,1-Dichloropropene	N.D.	20	19.94	20	19.66	100	98	78-120	1	30
cis-1,3-Dichloropropene	N.D.	20	18.48	20	18.41	92	92	75-120	0	30
trans-1,3-Dichloropropene	N.D.	20	18.62	20	18.59	93	93	76-120	0	30
Ethanol	N.D.	500	803.7	500	697.3	161	139	35-165	14	30
Ethyl t-butyl ether	N.D.	20	19.08	20	19.07	95	95	69-120	0	30
Ethylbenzene	N.D.	20	20.69	20	20.59	103	103	78-120	0	30
Freon 113	N.D.	20	19.52	20	19.24	98	96	68-129	1	30
Hexachlorobutadiene	N.D.	20	26.48	20	26.16	132*	131*	60-120	1	30
2-Hexanone	N.D.	100	100.52	100	102.9	101	103	49-137	2	30
di-Isopropyl ether	3.29	20	24.51	20	24.49	106	106	70-124	0	30
Isopropylbenzene	1.87	20	21.95	20	21.65	100	99	80-120	1	30
p-Isopropyltoluene	N.D.	20	20.72	20	20.54	104	103	76-120	1	30
Methyl Tertiary Butyl Ether	3.62	20	23.04	20	22.96	97	97	75-120	0	30
4-Methyl-2-pentanone	N.D.	100	102.09	100	102.62	102	103	56-131	1	30
Methylene Chloride	N.D.	20	19.51	20	19.16	98	96	80-120	2	30
Naphthalene	N.D.	20	21.03	20	21.07	105	105	59-120	0	30
n-Propylbenzene	N.D.	20	22.74	20	22.41	114	112	79-121	1	30
Styrene	N.D.	20	18	20	17.64	90	88	80-120	2	30
1,1,1,2-Tetrachloroethane	N.D.	20	17.43	20	17.53	87	88	80-120	1	30
1,1,2,2-Tetrachloroethane	N.D.	20	22.2	20	21.58	111	108	72-120	3	30
Tetrachloroethene	N.D.	20	18.97	20	18.79	95	94	80-129	1	30
Toluene	N.D.	20	20.78	20	20.77	104	104	80-120	0	30
1,2,3-Trichlorobenzene	N.D.	20	21.84	20	21.71	109	109	51-120	1	30
1,2,4-Trichlorobenzene	N.D.	20	21.86	20	21.52	109	108	58-120	2	30
1,1,1-Trichloroethane	N.D.	20	15.13	20	15.25	76	76	67-120	1	30
1,1,2-Trichloroethane	N.D.	20	20.16	20	20.07	101	100	80-120	0	30
Trichloroethene	N.D.	20	19.89	20	19.82	99	99	80-120	0	30
Trichlorofluoromethane	N.D.	20	13.64	20	13.32	68	67	57-134	2	30
1,2,3-Trichloropropane	N.D.	20	19.93	20	19.66	100	98	80-120	1	30
1,2,4-Trimethylbenzene	N.D.	20	20.51	20	20.33	103	102	75-120	1	30
1,3,5-Trimethylbenzene	N.D.	20	20.41	20	20.32	102	102	75-120	0	30
Vinyl Chloride	N.D.	20	17.59	20	17.56	88	88	63-121	0	30
m+p-Xylene	N.D.	40	39.07	40	38.81	98	97	80-120	1	30
o-Xylene	N.D.	20	18.71	20	18.67	94	93	80-120	0	30
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 170521848004	Sample numb	er(s): 884	3574-8843	576 UNSPK:	P840226					
Manganese	0.123	0.500	0.622	0.500	0.615	100	98	75-125	1	20
	ug/l	ug/l	ug/l	ug/l	ug/l					
Batch number: 170521848004	Sample numb				P840226				_	
Aluminum	2762.87	2000	5723.03	2000	5667.09	148*	145*	75-125	1	20
Barium	77.63	2000	2075.72	2000	2046.22	100	98	75-125	1	20
Boron	425.13	2000	2391.46	2000	2362.33	98	97	75-125	1	20
Cadmium	N.D.	50	50.02	50	49.43	100	99	75-125	1	20
Calcium	58160.17	4000	62123.57	4000	61918.19	99 (2)	94 (2)	75-125	0	20

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

## **Analysis Report**

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

#### MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Chromium	5.77	200	194.37	200	193.43	94	94	75-125	0	20
Copper	7.23	250	258.69	250	256.01	101	100	75-125	1	20
Iron	2661.78	1000	3716.05	1000	3750.75	105	109	75-125	1	20
Lead	N.D.	150	144.93	150	143.08	97	95	75-125	1	20
Magnesium	36097.59	2000	38193.53	2000	38081.79	105 (2)	99 (2)	75-125	0	20
Molybdenum	6.00	2000	1972.25	2000	1947.28	98	97	75-125	1	20
Nickel	9.07	500	501.72	500	496.84	99	98	75-125	1	20
Phosphorus	267.79	1000	1307.94	1000	1285.61	104	102	75-125	2	20
Silicon	15528.21	1000	18240.14	1000	18264.77	271 (2)	274 (2)	75-125	0	20
Silver	N.D.	50	47.54	50	46.74	95	93	75-125	2	20
Sodium	200207.67	10000	207712.21	10000	207829.66	75 (2)	76 (2)	75-125	0	20
Sulfur	33490.41	1000	34917.37	1000	34480.26	143 (2)	99 (2)	75-125	1	20
Tin	N.D.	4000	3752.9	4000	3688.76	94	92	75-125	2	20
Titanium	67.31	1000	1045.52	1000	1036.28	98	97	75-125	1	20
Vanadium	8.52	500	506.87	500	504.9	100	99	75-125	0	20
Zinc	16.14	500	513.31	500	504.9	99	98	75-125	2	20
	mg/l	mg/l	mg/l	mg/l	mg/l					
Batch number: 17054807802A	Sample numb	er(s): 884	13574-8843!	576 UNSPK:	P840226					
SGT-HEM (TPH)	N.D.	21.3	12.23	21.3	11.81	57*	55*	64-132	4	25

#### Laboratory Duplicate

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc mg/l	DUP Conc mg/l	DUP RPD	DUP RPD Max
Batch number: 170521848004 Manganese	Sample number(s): 0.123	8843574-8843576 0.120	BKG: P840226	20
	ug/1	ug/1	_	20
Batch number: 170521848004	Sample number(s):	8843574-8843576	BKG: P840226	
Aluminum	2762.87	2824.62	2	20
Barium	77.63	76.53	1	20
Boron	425.13	416.19	2	20
Cadmium	N.D.	0.660	200* (1)	20
Calcium	58160.17	56957.63	2	20
Chromium	5.77	6.23	8 (1)	20
Copper	7.23	6.34	13 (1)	20
Iron	2661.78	2640.3	1	20
Lead	N.D.	N.D.	0 (1)	20

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

#### Laboratory Duplicate (continued)

Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	BKG Conc	DUP Conc	DUP RPD	DUP RPD Max
	ug/l	ug/l		
Magnesium	36097.59	35306.82	2	20
Molybdenum	6.00	4.02	40* (1)	20
Nickel	9.07	9.35	3 (1)	20
Phosphorus	267.79	265.3	1 (1)	20
Silicon	15528.21	15445.47	1	20
Silver	N.D.	N.D.	0 (1)	20
Sodium	200207.67	194607.76	3	20
Sulfur	33490.41	33203.8	1	20
Tin	N.D.	N.D.	0 (1)	20
Titanium	67.31	71.51	6	20
Vanadium	8.52	8.44	1 (1)	20
Zinc	16.14	15.68	3 (1)	20
	mg/l	mg/l		
Batch number: 17054807802A	Sample number(s):	8843574-8843576	BKG: P840226	
SGT-HEM (TPH)	N.D.	N.D.	0 (1)	24

#### Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: BTEX/MTBE Batch number: D170595AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8843573	97	96	96	102
Blank	98	94	97	102
LCS	97	96	97	107
MS	95	95	97	107
MSD	96	97	95	105
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 8260 Full List w/ Sep. Xylenes

Batch number: W170601AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
8843574	92	102	105	96
8843575	95	105	104	95
8843576	93	103	104	96
Blank	94	104	104	96
LCS	94	103	105	102
MS	95	105	104	105
MSD	95	102	105	105

<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.



## Analysis Report

2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • Fax: 717-656-2681 • www.LancasterLabs.com

#### Quality Control Summary

Client Name: GHD Group Number: 1767544

Reported: 03/02/2017 15:46

#### Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: 8260 Full List w/ Sep. Xylenes

Batch number: W170601AA

Limits: 80-116 77-113 80-113 78-113

Analysis Name: PAHs 8270C Water

Batch number: 17052WAD026

	Nitrobenzene-d5	2-Fluorobiphenyl	Terphenyl-d14	
8843574	57	54	65	
8843575	84	79	61	
8843576	79	76	81	
Blank	73	68	81	
LCS	86	72	83	
LCSD	89	78	89	
Limits:	29-119	41-112	38-125	

Analysis Name: TPH-GRO N. CA water C6-C12

Batch number: 17055C20A

	Trifluorotoluene-F	
8843573	87	
8843574	83	
8843575	87	
8843576	86	
Blank	88	
LCS	92	
LCSD	97	

Limits: 63-135

Analysis Name: TPH-DRO CA C10-C28

Batch number: 170530011A

Orthoterphenyl						
8843574	77					
8843575	87					
8843576	85					
Blank	89					
LCS	101					
LCSD	95					
		_				

Limits: 50-124

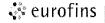
<sup>\*-</sup> Outside of specification

<sup>\*\*-</sup>This limit was used in the evaluation of the final result for the blank

<sup>(1)</sup> The result for one or both determinations was less than five times the LOQ.

<sup>(2)</sup> The unspiked result was more than four times the spike added.

#### Chevron California Region Analysis Request/Chain of Custody For Eurofins Lancaster Laboratories Environmental use only Group # 17,7544 Sample # 0543573 76 Instructions on reverse side correspond with circled numbers. Acct. # 13534 Lancaster Laboratories ## Lancaster Laborated Environmental **Client Information** Matrix **Analyses Requested** SCR #: SS#373378-OML G-R#17155905 Global ID#T10000003434 X M (9528) Results in Dry Weight 7600 MACARTHUR BLVD., OAKLAND, CA ☐ J value reporting needed Ground Chevron PM Lead Consultant X Gel Cleanup Must meet lowest detection **GHDMD** Davis limits possible for 8260 Total Number of Containers Consultant/Office compounds W Getter-Ryan Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568 8021 MTBE Confirmation TPH-DRO 8015 without Silica Consultant Project Mgr. TPH-DRO 8015 with Silica Confirm highest hit by 8260 Deanna L. Harding, deanna@grinc.com Confirm all hits by 8260 Potable Consultant Phone # Run \_\_\_\_\_ oxy's on highest hit (925) 551-7444 x180 Run \_\_\_\_\_ oxy's on all hits + MTBE 8260 Full Scan Sampler Composite PAHS FRANK TERNINONI Water Š Grab Soil Collected Soil Sample Identification Ö Depth Remarks Date Time QA 17.2.16 **WEAR METALS TO** REPORT ARE: AI, Ba, MW-1 B, Cd, Ca, Cr, Cu, Fe, 1025 MWZ Pb, Mg, Mo, Mn, NI, P, MW-3 SI, Ag, Na, S, Sn, TI, V 1112 and Zn Received by Relinguished by Turnaround Time Requested (TAT) (please circle) 16FEBI 917.2.IL Standard 5 day 4 day Received by 72 hour 24 hour 48 hour Received by Time Relinquished by Data Package (circle if required) EDF/EDD Type I - Full Type VI (Raw Data) Relinquished by Commercial Carrier: 9:50 EDD (circle if required) UPS FedEx Other Temperature Upon Receipt O.4 -(.1 °C EDFFLAT (default) **Custody Seals Intact?** Yes No



# Sample Administration Receipt Documentation Log

Doc Log ID:

176016

Group Number(s): 1767544

Client: Chevron California

**Delivery and Receipt Information** 

Delivery Method:

**BASC** 

Arrival Timestamp:

02/18/2017 9:50

Number of Packages:

2

Number of Projects:

1

**Arrival Condition Summary** 

Shipping Container Sealed:

Yes

Sample IDs on COC match Containers:

Yes

Custody Seal Present:

Yes

Sample Date/Times match COC:

Yes

Custody Seal Intact:

Yes

VOA Vial Headspace ≥ 6mm:

No

Samples Chilled:

Yes

Total Trip Blank Qty:

2

Paperwork Enclosed:

Yes

Trip Blank Type:

HCI

Samples Intact:

Yes

Air Quality Samples Present:

No

Missing Samples:

Extra Samples:

No No

Discrepancy in Container Qty on COC:

No

Unpacked by Nia Smith (12375) at 13:55 on 02/18/2017

#### Samples Chilled Details

Thermometer Types:

DT = Digital (Temp. Bottle)

IR = Infrared (Surface Temp)

All Temperatures in °C.

Cooler#	Thermometer ID	Corrected Temp	Therm. Type	<u>lce Type</u>	Ice Present?	Ice Container	Elevated Temp?
1	DT146	0.4	DT	Wet	Υ	Bagged	N
2	DT146	1.1	DT	Wet	Υ	Bagged	N



### **Explanation of Symbols and Abbreviations**

The following defines common symbols and abbreviations used in reporting technical data:

**BMQL** Below Minimum Quantitation Level mq milligram(s) degrees Celsius mĹ milliliter(s) cfu colony forming units MPN Most Probable Number **CP Units** cobalt-chloroplatinate units N.D. none detected F degrees Fahrenheit ng nanogram(s) nephelometric turbidity units gram(s) NTU g IÚ International Units pg/L picogram/liter kilogram(s) RLReporting Limit kg **TNTC** liter(s) Too Numerous To Count lb. pound(s) microgram(s) μg μĹ microliter(s) m3 cubic meter(s) milliequivalents umhos/cm micromhos/cm meg

< less than

> greater than

ppm parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.

ppb parts per billion

Dry weight Besults printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an

as-received basis.

#### Laboratory Data Qualifiers:

C - Result confirmed by reanalysis

E - Concentration exceeds the calibration range

J (or G, I, X) - estimated value ≥ the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)

P - Concentration difference between the primary and confirmation column >40%. The lower result is reported.

U - Analyte was not detected at the value indicated

V - Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference...

W - The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods. Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

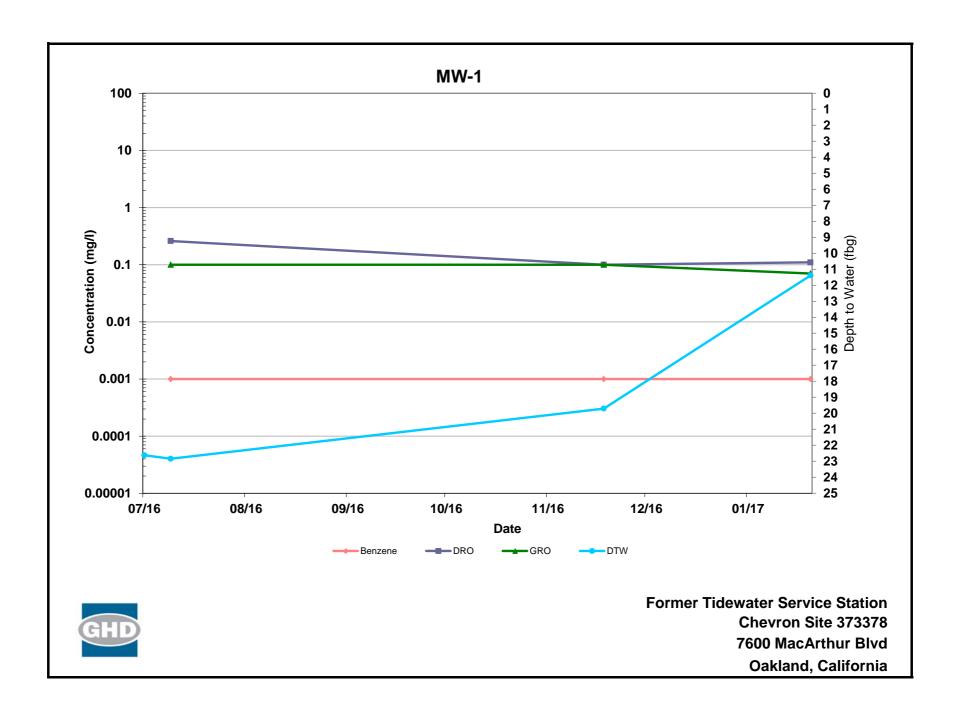
Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

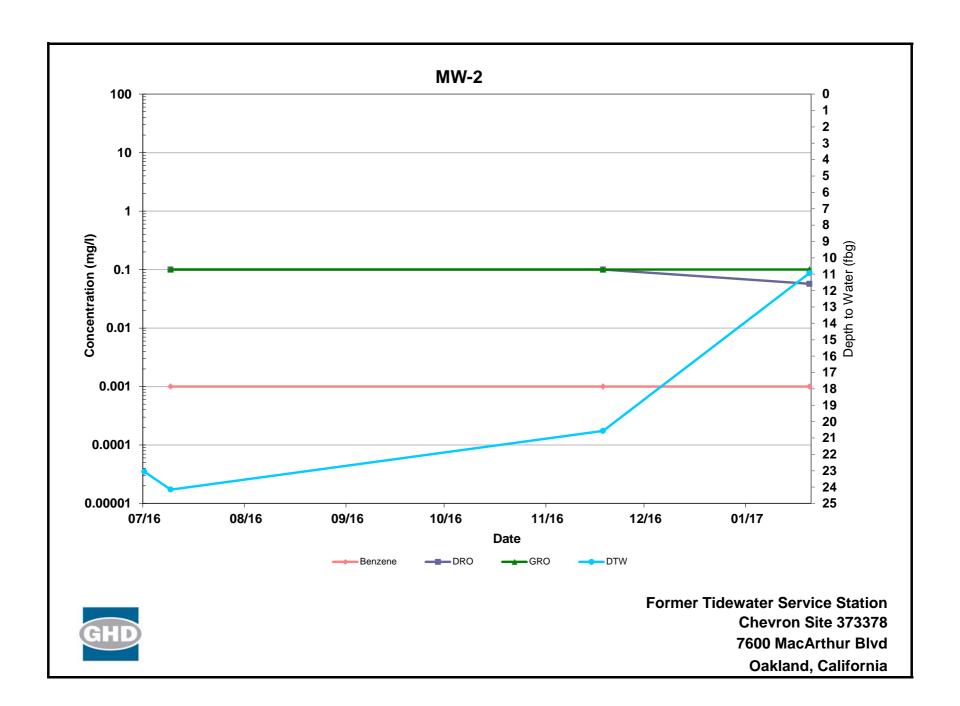
This report shall not be reproduced except in full, without the written approval of the laboratory.

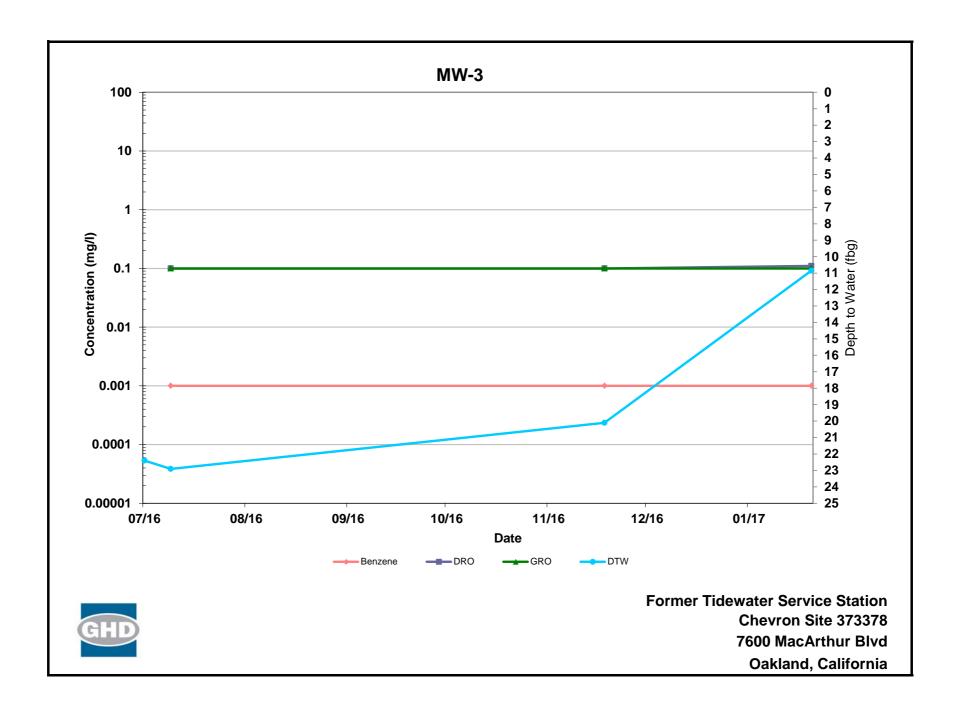
Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

# Attachment D Groundwater Elevation and Concentration Graphs







Attachment E Purge Water Disposal Documentation	

# **Tidewater Purge Log Worksheet**

### Non-Hazardous Water Transport Form

Profile No.: 500-1340 Tracking #: 1340-080516

**Date of Shipment Pick-up:** 8/5/2016 **PO/SO #:** W160728994 / 1602430471

**BOL #**: 0027471

#### **Texaco Downstream Properties Inc. TIDEWATER SITE INFORMATION** Manifest SAMPLE DATE SITE NUMBER CITY SITE ADDRESS **VOLUME** Doc No. (Shipment Date) (Generator) Α 6/1/2016 372359 UKIAH 195 BRUSH STREET 16 В 7/7/2016 211717 **SACRAMENTO** 66 BROADWAY STREET 77 С 7/13/2016 307515 **RED BLUFF** 545 SOUTH MAIN STREET 134 D 7/21/2016 307996 **AUBURN** 203 PLEASANT AVENUE 195 Ε 7/28/2016 OAKLAND 7600 MACARTHUR BLVD. 72 373378 F

G-R Total Qty: 494

Clean Harbors Qty: 494

Site Address:

6805 Sierra Court Suite G

Dublin,CA 94568

#### SC PPW 7/20/2015

WORK ORDER M01602430471

ANSPORTER	1Cls	ean Hart	ors Environr	nental Service.	inc.	_ VEHICLE ID	<del>,</del>	
A ID #	М	AD03	932225(	)		_ TRANS. 1 PH	IONE (781) 792	2-5000
ANSPURIER	{ Z					TRANS. 2 PH	IONE	
A ID #						<del></del>		
ESIGNATED	FACILITY Refining & E	evironm	ental .		SHIPPER Texaco Down	stream Propertie	25	
ACILITY EPA					SHIPPER EPA	AID# UIRED		
DDRESS 679 Sea					ADDRESS 6805 Sierra	Court, Suite G		
CITY Redwoo			STATE	ZIP 94063	CITY Dublin		STATE Z	<b>98</b> 568
ONTAINERS				DECCRIPTI	ON OF MATERIAL	S	TOTAL QUANTITY	UNIT WT/VOL
NO. & SIZE	TYPE	HM	A. NON HAZ	ARDOUS, NON D.	ON OF MATERIAL O.T. REGULATED, (PU	RGE WATER)	494	A
<u> </u>	77_		В.					
		-	C.					
			D.					
			E.					
			F.					
			G.					
			H.					
SPECIAL HA	NDLING IN	STRUCT	TIONS EME	RGENCY PHONE	#: (600) 463-3716	GENERATOR	Texaco Downstre	m Propertie

described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

	211	
SHIPPER PRINT DESIREE Walton	SIGN	8-5-16
DOM:	sign / flami / hurs	DATE 8-5-16
TRANSPORTER 1/VAHANCEL GUARY PRINT	Sign Strand Shurf	DATE
TRANSPORTER 2		DATE
PRINT	SIGN.	DATE -5
RECEIVED BY	n	<u>, , , , , , , , , , , , , , , , , , , </u>

TEACKING # 1344080516

Sales ORDER 160243071



# Seaport Environmental

NON-HAZARDOUS WATER TRANSPORT FORM

I I	CUSTOMER INFORMATION
NERATOR INFORMATION	Clean Harbors Environmental
hevron EMC	781-792-5000
305 Sierra Court, Suite G	PO# W160728994
ublin Ca	
SCRIBED WATER, THIS VALLE OF A PER 40 CFR 2	G WELL PURGE WATER AND/OR AUGER RINSATE, TANK RINSATE OR ABOVE IN DISSOLVED HYDROCARBONS. I CERTIFY THAT THE ABOVE NAMED MATERIAL 281.4 (b)(10)AND DOES NOT MEET THE CRITERIA OF HAZARDOUS WASTE AS HER APPLICABLE STATE LAW, HAS BEEN PROPERLY DESCRIBED, RICONDITION FOR TRANSPORTATION ACCORDING TO APPLICABLE  Sign date
ITE INFORMATION	
805 Sierra Court, Suite G	GROSS
	TARE
Dublin De	NET / Ci/l
Ca ·	TOTAL GALLONS 474
TRANSPORTER INFORMATION	Calculated of 8.34lbs per USG
TRANSPORTER INFORMATION  Clean Harbors	Driver: Nathaniel Gum .8-5-16
	Driver: Nathaniel Gum .8-5-16 Print full name & sign date
	Truck ID: 1733  Driver: Nathaniel Gum .8-5-16  Print full name & sign date  TIME OUT
	Truck ID: 1733  Driver: Nathaniel Gum 8-5-16  Print full name & sign date  TIME OUT  TIME IN
	Driver: Nathaniel Gum .8-5-16 Print full name & sign date  TIME OUT
Clean Harbors	Truck ID: /733  Driver: Nathaniel Gum .8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II	Truck ID: /733  Driver: Nathaniel Gum .8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II  Seaport Environmental	Truck ID: /733  Driver: Nathaniel Gum .8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673  Approval Number Solids %Wt pH
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II  Seaport Environmental  679 Seaport Boulevard	Truck ID: /733  Driver: Nathaniti Gum .8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II  Seaport Environmental  679 Seaport Boulevard  Redwood City, Ca 94063	Truck ID: /733  Driver: Nathaniel Gum .8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673  Approval Number Solids %Wt pH
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II  Seaport Environmental  679 Seaport Boulevard	Truck ID: /733  Driver: Nathaniel Gum 8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673  Approval Number Solids %Wt pH  500 - 1344
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II  Seaport Environmental  679 Seaport Boulevard  Redwood City, Ca 94063	Truck ID: /733  Driver: Nathaniel Gum 8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673  Approval Number Solids %Wt pH  500 - 1344  Solids Surcharge
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II  Seaport Environmental  679 Seaport Boulevard  Redwood City, Ca 94063	Truck ID: /733  Driver: Nathaniel Com 8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673  Approval Number Solids %Wt pH  500 - 1344
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II  Seaport Environmental  679 Seaport Boulevard  Redwood City, Ca 94063	Truck ID: /733  Driver: Nathaniel Gum 8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673  Approval Number Solids %Wt pH  500 - 1344  Solids Surcharge
Clean Harbors  DISPOSAL FACILITY INFORMATION EPA II  Seaport Environmental  679 Seaport Boulevard  Redwood City, Ca 94063	Truck ID: /733  Driver: Nathaniel Gum 8-5-16  Print full name & sign date  TIME OUT  TIME IN  TIME SPENT  D: CAR 000239673  Approval Number Solids %Wt pH  500 - 1344  Solids Surcharge

# **Shipment List**

Manifest Tracking/Doc No. Starts With	<b>1340-080516</b>	Search Advanced

	<b>■</b>		Displaying	1 - 5 of 5 re	ecords.	
Shipment No.	Manifest Tracking/Doc No.	Manifest State Number	Shipment Date	Status	Generator	Disposal Facility
372359- 0000019	1340-080516A	1340-080516A	6/1/2016	Shipped	Former Tidewater 372359	Seaport Refining and Environmental LLC (Redwood City)
211717- 0000052	1340-080516B	1340-080516B	7/7/2016	Shipped	Texaco Downstream Properties Inc. 211717	Seaport Refining and Environmental, LLC (Redwood City)
307515- 0000070	1340-080516C	1340-080516C	7/13/2016	Shipped	Texaco Downstream Properties Inc. 307515	Seaport Refining and Environmental, LLC (Redwood City)
307996- 0000056	1340-080516D	1340-080516D	7/21/2016	Shipped	Texaco Downstream Properties Inc. 307996	Seaport Refining and Environmental, LLC (Redwood City)
373378- 0000002	1340-080516E	1340-080516E	7/28/2016	Shipped	Tidewater 373378	Seaport Refining and Environmental, LLC (Redwood City)

Ļ											
ı	NON-HAZARDOUS	1. Generator ID Number	2. Page 1 of		ergency Respo		4. Waste T	racking Nun	nber		
$\ $	WASTE MANIFEST		1	1-8	300-424-	9300		1340-0	80516A		
	5. Generator's Name and M Former Tidewa	alling Address ater 372359		Genera	ator's Site Addr	ess (if differer	nt than mailing a	address)			
$\parallel$	Chevron EMC W	Waste Desk			195 Bru						
П	San Ramon, CA	A 94583 7 386-6044		1	Ukiah,	CA 954	82				
H	Generator's Phone							5.11			
	6. Transporter 1 Company N Gettler-Ryan						U.S. EPA I	D Number			
		Environmental Services	Inc., MA				U.S. EPA I		9 3 2	2 2	5 0
	8. Designated Facility Name Seaport Refin	ing and Environmental, I	LLC (Redwood	City	7)		U.S. EPA I	D Number			
	679 Seaport E	Blvd.		_	, ,						
	Redwood City,	CA 94063					F				
ĸ	Facility's Phone				40.0.41		44 T-1-1	40 11-7-1			
ENERATOR	9. Waste Shipping Na	ime and Description			10. Contain	Type	11. Total Quantity	12. Unit Wt./Voi.			
RA	1.Non-Haz, N	Jon-DOT regulated liquid		~							
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GE											
٥	2.									•	
	3.						G		···		
					;						
Ш	4.										
П	<b>1</b> **										
Н	13. Special Handling Instructi	ons and Additional Information						<u> </u>			
П	1. Wear Level "I	" PPE, Wear Splash Protect									
		-									
П											
П	14. GENERATOR'S/OFFERO	R'S CERTIFICATION: I hereby declare that the conte	nts of this consignment are	fully and a	ccurately describe	ed above by the	proper shipping r	name, and are	classified,		
П	Generator's/Offeror's Printed/	carded, and are in all respects in proper condition for tra		ole interna	tional and nationa	l governmental	regulations.		4444	0	\/
Ц	Generalor stolleror s Filliteur	Typed Name		nature						Day	Year
4	15. International Shipments										
빏		Import to U.S.	Export from	U.S.		ntry/exit: .			<del></del>		
ᆌ	Transporter Signature(for exp 16. Transporter Ackowledgme				Date Lea	aving U.S.:					
H	Transporter 1 Printed/Typed N		Sign	nature					Month	Day	Year
S S			1						1	1	1
S	Transporter 2 Printed/Typed N	lame	Sign	nature					Month	Day	Year
T E			1						1	1	1
Δ	17. Discrepancy									I	
$\  \ $	17a.Discrepancy Indication Sp	ace Quantity	Туре		Residue		Partial Rej	ection		Full Re	iection
Ш			, , , ,				r diddiritoj	COLOTT		- dii ito	Couon
,				Ma	anifest Referen	ce Number:					
ij	17b. Alternate Facility (or Gene	erator)					U.S. EPA II	O Number			
빍	Facility's Phone:						1				
	17c. Signature of Alternate Fac	cility (or Generator)							Month	Day	Year
									1	1	, 1
AN.										-	
SIC											ĺ
I I-		or Operator: Certification of receipt of materials	covered by this manifest	except a	as noted in Item	ı 17a.					
П	Printed/Typed Name		Sign	ature					Month	Day	Year
7			1						1 1	ŀ	

Ļ										
Î	NON-HAZARDOUS	1. Generator ID Number		3. Emergency Resp			racking Numb			
	WASTE MANIFEST		1	1-800-424-	-9300 		1340-08	0516B		
	5. Generator's Name and Ma Texaco Downst	ream Properties Inc. 211717		Generator's Site Add	ress (if different	than mailing a	address)			
	PO Box 6004 - San Ramon, CA	- Chevron EMC Waste Desk		66 Broa		05010				
		7 386-6044		SACRAME	ENTO, CA	95818				
	6. Transporter 1 Company N Gettler-Ryan	Name		<u>L</u> .		U.S. EPA I	D Number			
	7. Transporter 2 Company N				·					
	Clean Harbors	Environmental Services Inc.,	MF			U.S. EPA I	D Number D 0 3	9 3 2	2 2	5 0
	8. Designated Facility Name Seaport Refin	ing and Environmental, LLC (R	ledwood	City)		U.S. EPA I	D Number			
ı	679 Seaport B Redwood City,	slvd.								
•	Facility's Phone	CA 94003				1				
TOR	9. Waste Shipping Na	me and Description		10. Contai	ners	11. Total	12. Unit			
A	4 17 17 11		, <del></del>	No.	Туре	Quantity	Wt.∕Vol.			
田田	Non-Haz, N (purge w	on-DOT regulated liquid		1	тт	77	G			
GENERA	, (purge w	acci,								
G	2.						-			
1										
H	3.						-			
Ц	J									
II										
H	4.									
H										
II	13. Special Handling Instruction	ons and Additional Information					<u> </u>			·
I	1. Wear Level "E	" PPE, Wear Splash Protect								
П										
Ш										
Ш	packaged, marked and labeled/place	R'S CERTIFICATION: I hereby declare that the contents of this concarded, and are in all respects in proper condition for transport according	nsignment are fur ding to applicable	dly and accurately describe international and nation	bed above by the particular and above mmental of the particular and th	oroper shipping r egulations.	name, and are cl	assified,		
П	Generator's/Offeror's Printed/	Typed Name	Signa	ature				Month	Day	Year
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I,I	15. International Shipments	Import to U.S.	Export from L	J.S. Port of	entry/exit: _					
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Œ	Transporter 1 Printed/Typed N		Signa	ature				Month	Day	Year
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MAN	Transporter 2 Printed/Typed N	ame	Signa	ature				Month	Day Y	Year
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1 6	17. Discrepancy 17a.Discrepancy Indication Spa	ace O			ſ	7				
	4	Quantity  Type		L_J Residue	·	Partial Rej	ection	لــا	Full Rej	ection
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	17c. Signature of Alternate Fac	ility (or Generator)						Month	Day	Year
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		or Operator: Certification of receipt of materials covered by	this manifest e	except as noted in Iter	n 17a.					
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Î	NON-HAZARDOUS			3. Emergency Respo		4. Waste T	racking Nur	nber	
II	WASTE MANIFEST	CAR000202705	1	1-800-424-	9300		1340-0	80516C	
II	5. Generator's Name and Ma Texaco Downst	ream Properties Inc. 307515		Generator's Site Addr	ess (if different	than mailing a	address)		
П	PO Box 6004 -	- Chevron EMC Waste Desk			th Main				
H	San Ramon, CA			RED BLU	FF, CA	96080			
П	Generator's Phone 6. Transporter 1 Company N	Name		L		U.S. EPA I	D Number		
	6. Transporter 1 Company N Gettler-Ryan						D Humbo.		
	7. Transporter 2 Company N Clean Harbors	Name Environmental Services Inc.,	, MI			U.S. EPA I	D Number D 0 3	9 3 2 2 2	2 5 0
II	8. Designated Facility Name Seaport Refin	and Site Address ling and Environmental, LLC (R	Redwood	City)		U.S. EPA I	D Number		
	679 Seaport B	Blvd.		,,					
'	Redwood City,	CA 94063				1			
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Ш									
Ш	14. GENERATOR'S/OFFEROR	R'S CERTIFICATION: I hereby declare that the contents of this co	onsignment are fu	lly and accurately describ	ed above by the	proper shipping i	name, and are	classified,	
Ш	packaged, marked and labeled/place	carded, and are in all respects in proper condition for transport accor	rding to applicable	international and nationa	al governmental r	egulations			
Ц	Generator's/Offeror's Printed/	typed Name	Signa	ature				Month Day	Year
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Ę		Import to U.S.	Export from L		entry/exit: _				
2	Transporter Signature(for exp 16. Transporter Ackowledgment			Date Le	aving U.S.:				
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갋	17b. Alternate Facility (or Gene	erator)				U.S. EPA II	D Number		
i									
	Facility's Phone: 17c. Signature of Alternate Fac	illity (or Conocator)						Marih 3	Van
	176, Signature of Alternate Fac	inty (or Generator)						Month Day	Year
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اا	18. Designated Facility Owner	or Operator: Certification of receipt of materials covered by	this manifest	except as noted in Item	n 17a.				
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1	NON-HAZARDOUS	Generator ID Number		2. Page 1 of	3. Emerge	ncy Respo	nse Phone	4. Waste T	racking Num	ber		
	WASTE MANIFEST	CAR00021	4 7 3 4	1	1-800	-424-	9300		1340-08	30516D		
	5. Generator's Name and Ma	ailing Address	205006		Generator's	Site Addr	ess (if differen	t than mailing	address)			
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	San Ramon, CA		DODK					603-512	7			
	Generator's Phone 877	7 386-6044										
l	6. Transporter 1 Company N Gettler-Ryan	lame					•	U.S. EPA	D Number			
ı	Gettiel-Kyan	THC						1				
1	7. Transporter 2 Company N	Name S Environmental Serv	ricos Tro	M7				U.S. EPA				
ı			vices inc.,							9 3 2 2	2 5	0
I	8. Designated Facility Name Seaport Refin	and Site Address aing and Environment	tal, LLC (R	Redwood	Citv)			U.S. EPA I	D Number			
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ı	Redwood City,	CA 94063						1				
~	Facility's Phone					0 04-1-		11. Total	12. Unit			
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ı	packaged, marked and labeled/plack	carded, and are in all respects in proper con	ndition for transport accor	rding to applicabl	e international	and nations	i governmental	regulations.	name, and are	ciassined,		
l	Generator's/Offeror's Printed/	Typed Name		Sign	ature					Month	Day Y	/ear
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	WASTE MANIFEST		1	1-8	00-424-	9300		1340-0	80516E		
	5. Generator's Name and M	ailing Address		Generat	tor's Site Addre	ess (if different	than mailing	address)			
H	Tidewater 373	3378 - Chevron EMC Waste Desk			7600 Mad			,			
	San Ramon, CA				Dakland,			4 4			
	Generator's Phone	7 386-6044			•						
l	6. Transporter 1 Company N Gettler-Ryan	Name					U.S. EPA I	D Number			
	Gettler-Ryan	inc					1				
	7. Transporter 2 Company N	Vame					U.S. EPA I	D Number			
		s Environmental Services Ind	C., MF				M A	D 0 3	9 3 2 2	2 2	5 0
	8. Designated Facility Name	e and Site Address ning and Environmental, LLC	(Pedwood	City	1		U.S. EPA I	D Number			
	679 Seaport B	31vd.	(Nedwood	СІСУ	,						
ı	Redwood City,	CA 94063					i i				
	Facility's Phone										
ENERATOR	9. Waste Shipping Na	ame and Description			10. Contain	ers	11. Total	12. Unit			
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Ш	1. Wear Level "I	D" PPE, Wear Splash Protect									
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Ш	14. GENERATOR'S/OFFEROI packaged, marked and labeled/pla/	R'S CERTIFICATION: I hereby declare that the contents of t acarded, and are in all respects in proper condition for transport	this consignment are full according to applicable	ally and acc	curately describe onal and nationa	ed above by the l governmental r	proper shipping equiations	name, and are	classified,		
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NS.	Transporter 2 Printed/Typed N	Name	Sign	ature					Month	Day Y	/ear
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芷	17b. Alternate Facility (or Gene	erator)					U.S. EPA I	D Number			
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	Facility's Phone:										
ا	17c. Signature of Alternate Fac	cility (or Generator)							Month	Day	Year
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I I-		or Operator: Certification of receipt of materials covered	ed by this manifest	except as	s noted in Item	17a.					
	Printed/Typed Name		Signa	iture					Month I	Day Y	/ear
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### **Tidewater Purge Log Worksheet**

Non-Hazardous Water Transport Form

Profile No.: 500-1340 Tracking #: 1340-120816

**Date of Shipment Pick-up:** 12/8/2016 **PO/SO #:** W160771508 / 1603935442

**BOL #**: 0031807

#### **Texaco Downstream Properties Inc. TIDEWATER SITE INFORMATION** Manifest SAMPLE DATE **SITE NUMBER** CITY **SITE ADDRESS VOLUME** Doc No. (Shipment Date) (Generator) A 8/5/2016 373378 **OAKLAND** 7600 MACARTHUR BLVD. 21 В 9/6/2016 372359 UKIAH 195 BRUSH STREET 15 С 10/3/2016 211717 **SACRAMENTO 66 BROADWAY STREET** 7 D 10/17/2016 307515 **RED BLUFF** 545 SOUTH MAIN STREET 120 Ε 11/30/2016 372359 UKIAH 195 BRUSH STREET 23 F

Note: The TW steel tank holds up to 500 gallons; the lock combo: 3910.

G-R Total Qty:

186

Clean Harbors Qty:

186

Site Address:

6805 Sierra Court Suite G Dublin,CA 94568

SC PPW 11/29/2016 WORK ORDER NO 1603935442

TRANSPORTE	R1	lean Ha	rbors Environ	mental Service	, Inc.	_ VEHICLE ID	# BTH	Rear
EPA ID#		1AD05	3932225	0		_ TRANS. 1 P	HONE (784) 7	92 5000
TRANSPORTE	R 2				******	_ VEHICLE ID	#	**
EPA ID#	<del>va</del>					_ TRANS. 2 P	HONE	
DESIGNATED	FACILITY	Fridenna	nental	1110 1111 111	SHIPPER Tayan Dawns	stream Properti	96	
FACILITY EP	A ID#		ile tires		SHIPPER EPA	ID#	E 3	
ADDRESS	0 0 2 3 9 6 3				NONEREO ADDRESS 6805 Sierra C			
CITY	nd City		STATE CA	ZIP 94063	CITY Dublin		STATE CA	ZIP 94568
CONTAINERS NO. & SIZE	TYPE	нм		DESCRIPTION	ON OF MATERIAL	S	TOTAL QUANTITY	UNIT WT/VOL
01	TT		A.NON HAZ	ARDOUS, NON D.	O.T. REGULATED, (PUR	GE WATER)	186	G
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н			C.		V = 100 at 25 110 1			
			D.	S. M. M. Toll State and A. S. Santa and A. S.	III. AT THE			1 1
			E.	100 100 100				
			F.					
			G.	Work -	- a			
			H.					
SPECIAL HAN	NDLING INS	TRUCT	IONS EMER	GENCY PHONE #	(800) 483-3718	GENERATOR:	Texaco Downstre	am Properties

SHIPPERS CERTIFICATION: This is to certify that the above named materials are properly classified, described, packaged, marked and labeled and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

SHIPPER IN	146 Manberry	SIGN THE COLLEGE	DATE 12-8-16
PI	TINI	SIGN	DATE
TRANSPORTER 1	DRIAN A . KUSHEX	THUR	12-08-16
P	RINT	SIGN	DATE
TRANSPORTER 2			
PI	RINT	SIGN	DATE
RECEIVED BY			



# BOL # 0031807

TRACKING # 1340-12082016



# **Seaport Environmental**

# NON-HAZARDOUS WATER TRANSPORT FORM

		the state of the s	
GENERATOR INFORMATION	TE3610 (TIDEWATER)	CUSTOMER INFORMATION	enterno.
Texaco-Downstream-Propertie	_	Clean Harbors Environmental	
6805 Sierra Court, Suite G		Penny Ash	
Dublin Ca		PO# W160771508	
DESCRIBED WATER, THIS WATER N S A LIQUID EXEMPT FROM RCRAI DESCRIBED IN 22 CCR ARTICLE 11	MONITORING WELL PURGE WATER AND/O		IAL
Clenifachtay Generator/Authorised Agent	surs, GR	AMaybam 1-	2-2
SITE INFORMATION			
6805 Sierra Court, Suite G		GROSS	·
Dublin		TARE	***************************************
Ca		NET	
		TOTAL GALLONS	
		Calculated at 8 34ks per USG	
TRANSPORTER INFORMATION  Clean Harbors	Truck ID: BT4 Driver: Bran R Print full name & sigh	usher 12/8/16 date	
		TIME OUT	
		TIME IN	
		TIME SPENT	
DISPOSAL FACILITY INFORMATION	N EPA ID: CAR 000239673		··········
Seaport Environmental	Approval Number	Solids %Wt pH	
679 Seaport Boulevard	500 - 1340		
Redwood City, Ca 94063	300 - 1340		
Phone: (650) 364 1024		***************************************	
		Solids Surcharge ¢/USG	
Received by:		nya manggalilikhi dalah naha hilada/wa dalah nakhi magaza minimum acati o uta ana acasa adalah dalah dalah salah	
Print full name & sign	date		

# **Shipment List**

Manifest Tracking/Doc No. Starts With	h 🔻	%1340-120816	Search Advanced

i	•	,	Displaying	1 - 5 of 5 re	ecords.	
Shipment No.	Manifest Tracking/Doc No.	Manifest State Number	Shipment Date	Status	Generator	Disposal Facility
373378- 0000003	1340-120816A	1340-120816A	8/5/2016	Shipped	Tidewater 373378	Seaport Refining and Environmental, LLC (Redwood City)
372359- 0000021	1340-120816B	1340-120816B	9/6/2016	Shipped	Former Tidewater 372359	Seaport Refining and Environmental, LLC (Redwood City)
211717- 0000054	1340-120816C	1340-120816C	10/3/2016	Shipped	Texaco Downstream Properties Inc. 211717	Seaport Refining and Environmental, LLC (Redwood City)
307515- 0000072	1340-120816D	1340-120816D	10/17/2016	Shipped	Texaco Downstream Properties Inc. 307515	Seaport Refining and Environmental, LLC (Redwood City)
372359- 0000023	1340-120816E	1340-120816E	11/30/2016	Shipped	Former Tidewater 372359	Seaport Refining and Environmental, LLC (Redwood City)

Ļ													
Î	NON-HAZARDOUS	1. Generator ID Number		3. Emergency Re	•		racking Number						
	WASTE MANIFEST								1340-120816A				
II	5. Generator's Name and M Tidewater 373	ailing Address 3378		Generator's Site A	ddress (if differen	t than mailing a	n mailing address)						
	PO Box 6004 -	Blvd	4.4										
Н	San Ramon, CA 94583												
	6. Transporter 1 Company N Gettler-Ryan	Name		<u> </u>		U.S. EPA I	D Number						
	7. Transporter 2 Company N Clean Harbors	Name Environmental Services Inc.	., MZ			U.S. EPA I	D Number D 0 3 9	3 2	2 2	5.0			
	Designated Facility Name	and Site Address				U.S. EPA I				-			
	Seaport Refin	ing and Environmental, LLC	(Redwood	City)									
l	Redwood City,					r CA	L 0 0 0	) () 3	2 0	6 8			
æ	Facility's Phone												
TOR	9. Waste Shipping Na	me and Description		10. Con	tainers Type	11. Total Quantity	12. Unit Wt./Vol.						
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$\ $	13. Special Handling Instructi	ons and Additional Information					<u> </u>						
I	1. Wear Level "I	O" PPE, Wear Splash Protect											
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Ш													
Ш	packaged, marked and labeled/pla	R'S CERTIFICATION: I hereby declare that the contents of this carded, and are in all respects in proper condition for transport ac	consignment are fu cording to applicable	ally and accurately designational and nati	cribed above by the ional governmental	proper shipping r regulations,	name, and are cla	ssified,					
Ш	Generator's/Offeror's Printed/	Typed Name	Sign	ature	•			Month	Day	Year			
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딉	15. International Shipments	Import to U.S.	Export from U	J.S. Port	of entry/exit								
Ż	Transporter Signature(for exp 16. Transporter Ackowledgme			Date	Leaving U.S,:								
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POR	-,								<i>,</i>				
ANS	Transporter 2 Printed/Typed N	lame	Sign	ature				Month	Day	Year			
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ħ	17. Discrepancy												
	17a.Discrepancy Indication Sp	ace		Residue		Partial Rej	jection		Full Re	jection			
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Ę	17b. Alternate Facility (or Gen	erator)				U.S. EPA II	D Number						
Ü	Facility's Phone					1							
r. ide	Facility's Phone:  17c. Signature of Alternate Fac	cility (or Generator)				1	·	Month	Day	Year			
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ā.	49 Designated Facility O	or Operator Confidential of a solid of a solid	house and the second				<del></del>						
	<ol> <li>Designated Facility Owner Printed/Typed Name</li> </ol>	or Operator: Certification of receipt of materials covered	by this manifest of Signa		tem 17a.			Month	Day	Year			
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Î	NON-HAZARDOUS	1. Generator ID Number	2. P			gency Respo		1	racking Nur			
Ш	WASTE MANIFEST							1340-120816B				
	5. Generator's Name and Mailing Address Former Tidewater 372359  Generator's Site Address (if different former Tidewater 372359)							nt than mailing address)				
П	Chevron EMC W					95 Bru						
$\ $	San Ramon, CA	7 386-6044			l l	kiah,	CA 954	182				
H	Generator's Phone  6. Transporter 1 Company N Gettler-Ryan	Name						U.S. EPA I	D Number			
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	7. Transporter 2 Company N Clean Harbors	Name S Environmental Serv	ices Inc., M	17				U.S. EPA I		9 3 2 2	2 2 !	5 0
	8. Designated Facility Name Seaport Refin	and Site Address ling and Environmenta	al. LLC (Red	wood (	City	-		U.S. EPA I	D Number			
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ı	Redwood City,	CA 94063						CA	L 0 0	0 0 3 2	2 0	6 8
EX.	Facility's Phone  9. Waste Shipping Na	ime and Description				10. Contain	ers	11. Total	12. Unit			_
ENERATOR	o, value omphing re	and Description				No.	Туре	Quantity	Wt./Vol.			
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Н	13. Special Handling Instructi	ons and Additional Information	-									
П	1. Wear Level "[	O" PPE, Wear Splash Pro	otect									
П												
II			<u></u>									
И	packaged, marked and labeled/pla	R'S CERTIFICATION: I hereby declare that carded, and are in all respects in proper condit	the contents of this consignation for transport according	nment are ful to applicable	lly and acc internation	urately describe nal and nationa	ed above by the I governmental	e proper shipping r I regulations,	name, and are	classified,		
Ш	Generator's/Offeror's Printed/	Typed Name		Signa	iture					Month	Day	Year
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ī	15. International Shipments	Import to U.S.	Exp	port from U	.s.	Port of e	ntry/exit :					
Ξ	Transporter Signature(for exp					Date Lea	aving U.S.:					
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Ā	17. Discrepancy											
Ш	17a,Discrepancy Indication Sp	ace Quantity	Type			Residue		Partial Rej	ection	F	ull Reje	ection
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삵	17b. Alternate Facility (or Gene	erator)			171011		-2 1 TUITIOGI.	U.S. EPA II	) Number			
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	17c. Signature of Alternate Fac	ality (or Generator)								Month	Day \	Year
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1	NON-HAZARDOUS	1. Generator ID Number		3. Emergency Resp		1	racking Num			
П	WASTE MANIFEST		1	1-800-424-	-9300	<u> </u>	1340-12	20816C		
	PO Box 6004 - San Ramon, CF	ream Properties Inc. 211717 - Chevron EMC Waste Desk		Generator's Site Add 66 Broa SACRAME			address)			
Generator's Phone										
6. Transporter 1 Company Name Gettler-Ryan Inc										
	7. Transporter 2 Company Name Clean Harbors Environmental Services Inc., MF  M A D 0 3 9									5 0
	8. Designated Facility Name Seaport Refin 679 Seaport E Redwood City,	ning and Environmental, LLC () Blvd.	Redwood	City)		U.S. EPA	D Number			
Ι.	Facility's Phone	CA 94003				CA	L 0 0	0 0 3	2 0	6 8
1 O E		ame and Description		10. Contai	ners 1 Type	11. Total Quantity	12. Unit			
GENERATO	1.Non Haz, N (purge wa	Non-DOT regulated liquid ater)		1	ТТ	7	G		· · · · · · ·	-
9	2.							•		
100	3.									
	4.									
		ons and Additional Information O" PPE, Wear Splash Protect								
П	14. GENERATOR'S/OFFEROI	R'S CERTIFICATION: I hereby declare that the contents of this c	onsignment are fu	illy and accurately describ	ed above by the	proper shipping r	name, and are	dassified,		
ı	Generator's/Offeror's Printed/	carded, and are in all respects in proper condition for transport according to the condition of transport according to the condition of the co	ording to applicable Signa		al governmental r	egulations.		Month	Day	Year
Ţ			j					1	•	ı cai
NT'I	15. International Shipments	Import to U.S.	Export from L	J.S. Port of	entry/exit : _				l	
۲	Transporter Signature(for exp 16. Transporter Ackowledgme			Date Le	aving U.S		<del></del>			
TRANSPORTER	Transporter 1 Printed/Typed i	<u></u>	Signa	ature				Month	Day	Year
RANSP	Transporter 2 Printed/Typed N	lame	Signa	ature		<del></del>		Month	Day Y	Year
FI										
Ī	17. Discrepancy 17a.Discrepancy Indication Sp	ace Quantity Type	<del></del>	Residue	[	Partial Rej	ection		Full Rej	ection
<u>'</u>				Manifest Referer	nce Number:					
LLITY	17b. Alternate Facility (or Gene	erator)				U.S. EPA II	O Number	-		
욁	Facility's Phone:									
ED DE	17c. Signature of Alternate Fac	cility (or Generator)			·	-		Month	Day	Year
SIGNA								1		
DE.										
1 14	<ol> <li>Designated Facility Owner Printed/Typed Name</li> </ol>	or Operator: Certification of receipt of materials covered b	y this manifest o		n 17a.			Marit	Davi	Van-
H			Jigita	our ♥				Month	Day	Year

1	NON-HAZARDOUS	Generator ID Number		100	3. Emerge	ency Respo	nse Phone	4. Waste T	racking Nun	nber		
	WASTE MANIFEST	WASTE MANIFEST C A R 0 0 0 2 0 2 7 0 5 1 1-800-424-9300					1340-120816D					
$\parallel$	5. Generator's Name and Mailing Address  Generator's Site Address (if different than mailing address)											
	Texaco Downstream Properties Inc. 307515 PO Box 6004 - Chevron EMC Waste Desk 545 South Main St.											
	San Ramon, CA 94583 RED BLUFF, CA 96080											
Ш	Generator's Phone	7 386-6044			L.							
6. Transporter 1 Company Name Gettler-Ryan Inc												
H	7. Transporter 2 Company N	Vame						U.S. EPA II	D Number			
	Clean Harbors	Environmental Serv	vices Inc.,	M <i>F</i>				M A	D 0 3	9 3 2	2 2	5 0
	8. Designated Facility Name Seaport Refin	and Site Address ling and Environment	al. LLC (R	edwood	City			U.S. EPA I	D Number			
	679 Seaport B	Blvd.	Jul 7 220 (1)	·oanooa	OICY,							
1	Redwood City,	CA 94063						ı CA	L 0 0	0 0 3	2 0	6 8
ĸ	Facility's Phone							l				
TOR	9. Waste Shipping Na	me and Description			<u> </u>	10. Contain	ers Type	11. Total Quantity	12. Unit Wt./Vol.			
A	1 Non Haz N	Non-DOT regulated li	imid			No.	туре	Quantity	VVI./ VOI.			
ENERA	(purge wa		ıquıa			1	тт	120	G			
E	(Fargoa	.0027										
Ø	2.											
ı												
П												
	3.											
П												
П												
Н	4.											
П												
П	13. Special Handling Instructi	ions and Additional Information			ı							
П												
П	l. Wear Level "D	O" PPE, Wear Splash Pi	rotect									
П												
Ш												
Н		R'S CERTIFICATION: I hereby declare th carded, and are in all respects in proper con-							name, and are	classified,		
П	Generator's/Offeror's Printed/	Typed Name		Signa	ature					Moni	th Day	Year
¥I				1						1	1	1
	15. International Shipments			1		5 / /	4 4 10	:				
Ę	Transporter Signature(for exp	Import to U.S.	<u> </u>	Export from U	J.S.		entry/exit:					
~	16. Transporter Ackowledgme					Date Lea	aving 0.0.					
RIE	Transporter 1 Printed/Typed N	vame		Signa	ature					Monti	h Day	Year
<u>8</u>				- 1						- 1	1	1
AN	Transporter 2 Printed/Typed N	lame		Signa	ature					Month	Day	Year
TR	1			1							1	1
Ą.	17. Discrepancy											
Н	17a,Discrepancy Indication Spa	ace Quantity	Туре			tesidue		Partial Rej	ection		Full Re	ejection
ᆡᇈ	17b. Alternate Facility (or Gene	erator)			Manif	est Keferen	ce Number:	110 504 11	D Niv			
밁	17b. Alternate Facility (of Gene	erator)						U.S. EPA II	) Number			
딣	Facility's Phone:											
釬	17c. Signature of Alternate Fac	ality (or Generator)				<del></del>				Month	Day	Year
TED										1	1	
Z.			···									
SIC												
DE												
I I-		or Operator: Certification of receipt of	materials covered by	this manifest	except as n	oted in Item	17a.					
	Printed/Typed Name			Signa	ture					Month	Day	Year
И				1						1	1	1

Ļ						_			
Î	NON-HAZARDOUS	Generator ID Number	2. Page 1 of		•	4. Waste T	-		
$\ $	WASTE MANIFEST  1 1-800-424-9300  5. Generator's Name and Mailing Address  Generator's Site Address (if different than mailing)							20816E	
	Former Tidewa	ater 372359		Generator's Site A	Address (if differer	t than mailing a	iddress)		
П	Chevron EMC W				rush Stre				
$\ $	San Ramon, CA 94583 Ukiah, CA 95482								
	Generators Phone			Ц		U.Ş. EPA I	D Number		
Gettler-Rýaň Inc									
	7. Transporter 2 Company Name Clean Harbors Environmental Services Inc., MF  M A D 0 3								
$\ $	8. Designated Facility Name Seaport Refin	eand Site Address ling and Environmental,	LLC (Redwood	City)		U.S. EPA I	D Number		
	679 Seaport B	Blvd.		2,					
1	Redwood City, Facility's Phone	CA 94063				CA	L 0 0	0 0 3 2 0	6 8
R		eme and Description		10. Cor	ntainers	11. Total	12. Unit		
H				No.	Туре	Quantity	Wt./Vol.		
GENERATOR	1.Non Haz, N	Non-DOT regulated liqui	.d			2.2			
Z	(purge wa	ater)			1   T T	23	G		
D D									
ı	2.								
	3.								
П									
Ш									
П	4.								
П									
П	13. Special Handling Instructi	ons and Additional Information							
Н	1 Wear Level "f	" PPE, Wear Splash Prote	ct						
Ш		- 112, opade 12000							
П									
Ш	14. GENERATOR'S/OFFEROR	R'S CERTIFICATION: I hereby declare that the co	ontents of this consignment are	fully and accurately des	scribed above by the	proper shipping r	ame, and are	classified,	
Ш	packaged, marked and labeled/placed packaged pac	carded, and are in all respects in proper condition fo			tional governmental	regulations.			
$\coprod$	Generator Stofferor S Printed/	rryped Name	. Sig	nature				Month Day	Year
4	15. International Shipments								
빍	·	import to U.S.	Export from	U.S. Port	of entry/exit:				
낕	16. Transporter Ackowledgme			Date	Leaving U.S.:	·			
PORTE	Transporter 1 Printed/Typed N	Name	Sign	nature				Month Day	Year
2			1					1 1	1
AN	Transporter 2 Printed/Typed N	lame	Sig	nature				Month Day	Year
Ħ				· <u>-</u>					
۱ħ	17. Discrepancy								
П	17a.Discrepancy Indication Sp.	ace Quantity	<b>Ш</b> Туре	Residue		Partial Rej	ection	L Full F	Rejection
IJ				Manifest Refe	erence Number:				- 1
갧	17b. Alternate Facility (or Gene	erator)			·	U.S. EPA II	) Number		
						1			
	Facility's Phone: 17c. Signature of Alternate Fac	rility (or Generator)	<del></del>					Month Day	Year
ᆈ	170. Oignature of Atternate Fac	unity (or Contractor)						Morain Day	, 60,
GNATE									
SIG									
DE	<u> </u>								ļ
		or Operator: Certification of receipt of materia	als covered by this manifes	t except as noted in	Item 17a.				
	Printed/Typed Name		Sign	ature				Month Day	Year
7			1					1 1	-1 -1