#### **RECEIVED**

2:59 pm, Mar 29, 2011 Alameda County Environmental Health

March 14, 2011

Mark Detterman Alameda County Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502-6540

Re:

Ground Water Monitoring Report, December 2010

Ras-Co Manufacturing RWQCB Case #01-2121 ACEH Case #R00000164 413 West Sunset Blvd Hayward, CA

Dear Mr. Detterman,

I have directed ERS to provide, on our behalf, professional environmental consulting services to the best of their ability. To the best of my knowledge the information in this report is accurate and all local Agency and/or Regional Water Quality Control Board regulations and guidelines have been followed.

This report was prepared by ERS and I have relied on their advice and assistance. I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

Karniel Lang Property Owner

Attachment: Report



February 16, 2011

RAS-CO Manufacturing 413 West Sunset Boulevard Hayward, CA 94541

RE: Ground Water Monitoring Report, December 2010

413 W. Sunset Blvd., Hayward, California

ACEH Case No: RO0000164

Dear Mr. Lang:

Environmental Risk Specialties Corporation (ERS) has enclosed one hard copy of the Ground Water Monitoring Report, December 2010 for 413 W. Sunset Blvd., Hayward, California. ERS will also upload the Report along with monitor well sampling and analytical data to the Regional Water Quality Control Board's GeoTracker database.

If you have any questions regarding this report or the findings of the work, please contact me at (408) 496-0801, extension 11 or email me at <a href="mailto:kprice@erscorp.us">kprice@erscorp.us</a>.

Sincerely,

Kendall W. Price

Levell V. A.

CEG, REA

Principal Geologist

cc: Mr. Mark Detterman, Alameda County Health Care Services Agency

# GROUND WATER MONITORING REPORT DECEMBER 2010

## RAS-CO Manufacturing 413 W. Sunset Blvd Hayward, California









**Environmental Risk Specialties Corporation** 



# GROUND WATER MONITORING REPORT DECEMBER 2010

413 W. Sunset Blvd.

Hayward, California

Prepared for:

**RAS-CO Manufacturing** 

413 West Sunset Boulevard

Hayward, CA 94541

Prepared by:

**Environmental Risk Specialties Corporation** 

Santa Clara, California

February 16, 2011

Levell V. A.

Reviewed By:

Kendall Price, CEG

**Principal Geologist** 

FEBRUARY 2011 I EIS

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#### 1.0 INTRODUCTION

This Ground Water Monitoring Report was prepared by Environmental Risk Specialties Corporation (ERS) on behalf of RAS-CO Manufacturing. This Report describes ground water monitoring work performed at 413 W. Sunset Blvd., Hayward, California (Site). The project objectives were to sample and analyze ground water from one monitor well (MW-1) and one agriculture well (AG-WELL), measure the depth to ground water in all wells, evaluate analytical results, and report the findings.

#### 2.0 BACKGROUND

The Site is located at 413 West Sunset Boulevard in Hayward, CA. The Site is comprised of a single large structure with paved parking to the west and south. The Site is bounded by residences to the west, north, south, and by Interstate Highway 880 to the east (Appendix A).

Two gasoline USTs (500 and 250-gallon) were removed in November 1994 and limited overexcavation was conducted at that time. A total of 230 cubic yards of soil were excavated in two phases in April and June of 1995 to a total depth of 21 feet below ground surface (bgs). Five grab soil samples were collected at the extent of the second excavation (S-1 through S5) (TPE 1994) and one grab ground water sample was collected at the base of the excavation (S-1) (TPE 1994). All samples were analyzed by Total Petroleum Hydrocarbon (TPH) as gasoline and benzene, toluene, ethylbenzene and xylenes (BTEX).

TPH as gasoline concentrations from the confirmation soil samples collected at the excavation extent contained ranged from 9.1 to 160 mg/kg. The grab water sample collected at the base of the pit contained measurable concentrations of TPH as gasoline at 10 mg/l.

Stockpiled soil was aerated by moving the soil between the onsite treatment areas with a front end loader and spraying with a hydrogen peroxide solution. The stockpiled soil was characterized both before and after treatment. In October 1995, approximately four months after the excavation, the pit was backfilled with approval from Alameda County Health Care Services (TPE, 1996).

One well was installed in June 1999 within 10 feet of the excavated area in accordance with California Regional Water Quality Control Board's recommendations (RWQCB, 1990). The well is screened from 18 to 30 feet bgs. A soil sample was collected during the well installation from 15.5 to 16 feet bgs and ground water was sampled once in June of 1999. An agricultural well, located approximately 60 feet to the west was sampled in February and June of 1999. While the screen zone for the agricultural well is unknown, the total depth of the well was measured at 71.24 feet bgs in December of 2010. All samples were analyzed for TPH as gasoline, BTEX and Methyl tert butyl ether (MTBE).

Methyl tert-butyl ether (MTBE) was the only detected compound, measured at a concentration of 1,200  $\mu$ g/l in the agricultural well in February 1996. The agricultural well was sampled again in 1999 and no compounds were detected.

#### 2.1 Subsurface Conditions

Lithology at the site was not recorded during investigation, but according to the USTCF 5-Year Review Summary (Appendix B) and nearby sites in the SWRCB Geotracker database (CKG, 2010), the Site is underlain by sandy clay, fine grained sands and silts to approximately 30 feet. Ground water was encountered at approximately 23.0 below ground surface (bgs) in December, 2010.

#### 3.0 GROUND WATER MONITORING AND SAMPLING

Ground water monitoring and sampling of the Site was performed on December 16, 2010 by ERS personnel. Work at the Site included measuring depth to water, subjectively evaluating groundwater in the wells, purging and sampling the wells, and submitting samples to a NELAP certified laboratory for analysis under standard chain of custody (COC) procedures.

#### 3.1 Depth to Ground Water and Gradient

Before ground water purging and sampling, depth to the water table was measured from the top of each well casing to the nearest 0.01 foot. Depth to water was encountered in MW-1 at 22.59 feet bgs and in the agriculture well at 23.06 feet bgs. Field sheets for the December monitoring are included in Appendix C.

Top of casing elevations were surveyed relative to mean sea level on February 7, 2011 by PLS Surveys Inc., to the SWRCB Geotracker standards. Ground water elevations (GWE) were calculated by subtracting the depth to water measurement from the top of casing elevation. Because there are only two wells on the site and the screen zone and lithology in the agricultural well is unknown, a local ground water gradient cannot be established. However, according to the USTCF 5-Year Review Summary (Appendix B) and local SWRCB sites listed on Geotracker (CKG, 2010), ground water flow direction is to the west/northwest. This observation is consistent with regional ground water flows that drain to the San Francisco Bay located to the west. Also, the GWE in the agricultural well is 0.47 feet lower than MW-1, which provides further evidence that ground water flows to the west. Monitor well MW-1 is located within 10 feet to the west of the former tanks and excavation area; the agricultural well is located approximately 60 feet to the west of MW-1.

#### 3.2 Ground Water Sampling

MW-1 and the agricultural well were purged using a peristaltic pump and dissolved oxygen (DO), pH, temperature, oxidation reduction potential (ORP), and specific conductivity (SC)

were measured during purging. Ground water samples were collected in MW-1 after a minimum of four well casing volumes of water had been removed and when ground water recovered to a minimum of 80 percent of the initial measured water level. Prior to sampling the tube was disconnected from the flow-through cell and samples were collected directly from the dedicated tubing. The agricultural well was purged and sampled in accordance with standard low-flow sampling protocols (ASTM, 2002). Field sheets with sampling parameters are included in Appendix C.

From each well, six laboratory-supplied 40-milliliter HCl-preserved sample vials were filled with ground water and sealed with zero headspace. Once filled, sample vials were inverted and tapped to test for air bubbles. Sample containers were labeled and stored in a pre-chilled, insulated container and returned to ERS's Walnut Creek office where they were stored at 4°C. The samples were transported to Curtis and Tompkins, a state-certified analytical laboratory, following standard COC protocols for the requested analyses.

Water purged during the development and sampling of the monitor wells is being temporarily stored onsite in a 55-gallon drum pending laboratory analysis.

#### 4.0 RESULTS OF GROUND WATER SAMPLING

Ground water samples collected from wells MW-1 and the agriculture well were analyzed for TPH as gasoline, BTEX and MTBE, lead scavengers, fuel oxygenates, 1,2-dibromoethane (EDB), and 1,2-dichloroethane (EDC). Copies of the COC and laboratory analytical reports are included as Appendix D. Analytical results are summarized below.

#### 5.0 DISCUSSION

According to the USTCF 5-Year Review Summary, previous results indicated a presence of MTBE at a maximum concentration of 1,200  $\mu$ g/L in the agricultural well measured in February 1996. Analytical results from these recently collected ground water samples revealed no measurable concentrations of TPHg, BTEX, MTBE, lead scavengers, fuel oxygenates, EDB, and EDC.

#### 6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the ground water monitoring performed at 413 W. Sunset Blvd:

- Ground water is encountered at approximately 23 feet bgs;
- No measurable concentrations of TPHg, BTEX, MTBE, lead scavengers, fuel oxygenates, EDB, and EDC were present in either well.
- The results from the most recent round of ground water are consistent with the results from samples collected in 1999.

• The remedial action conducted at the site appears to have been effective and based on the recent ground water monitoring results, site closure is recommended.

#### 7.0 REFERENCES

ASTM, Standard Practice for Low-Flow Purging and Sampling for Wells and Devices Used for Ground-Water Quality Investigations, 2002

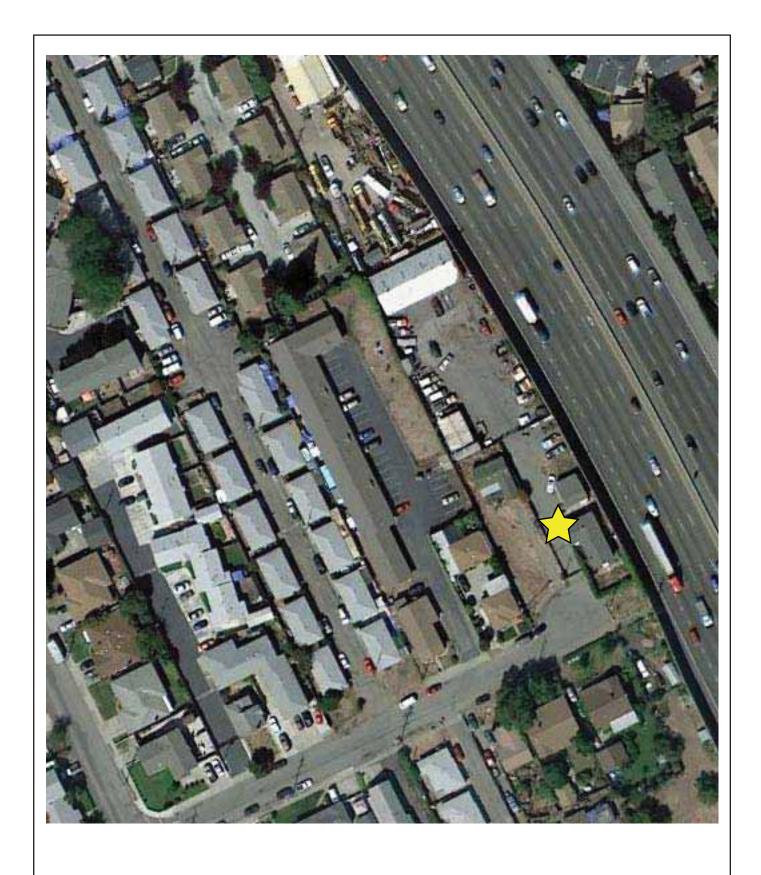
CKG Environmental, Fourth Quarter 2010 Groundwater and Remediation Effectiveness Monitoring Report, Former Owens-Brockway Glass Container Facility, Hayward Ca, 2010

Regional Water Quality Control Board, *Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites*, August 1990.

Tank Protect Engineering, Groundwater Monitoring Well Installation Report, Aug. 5, 1999

Tank Protect Engineering, Report on Excavation of Contaminated Soil and Work Plan for Installation of a Ground water Monitoring Well, Feb. 8, 1996

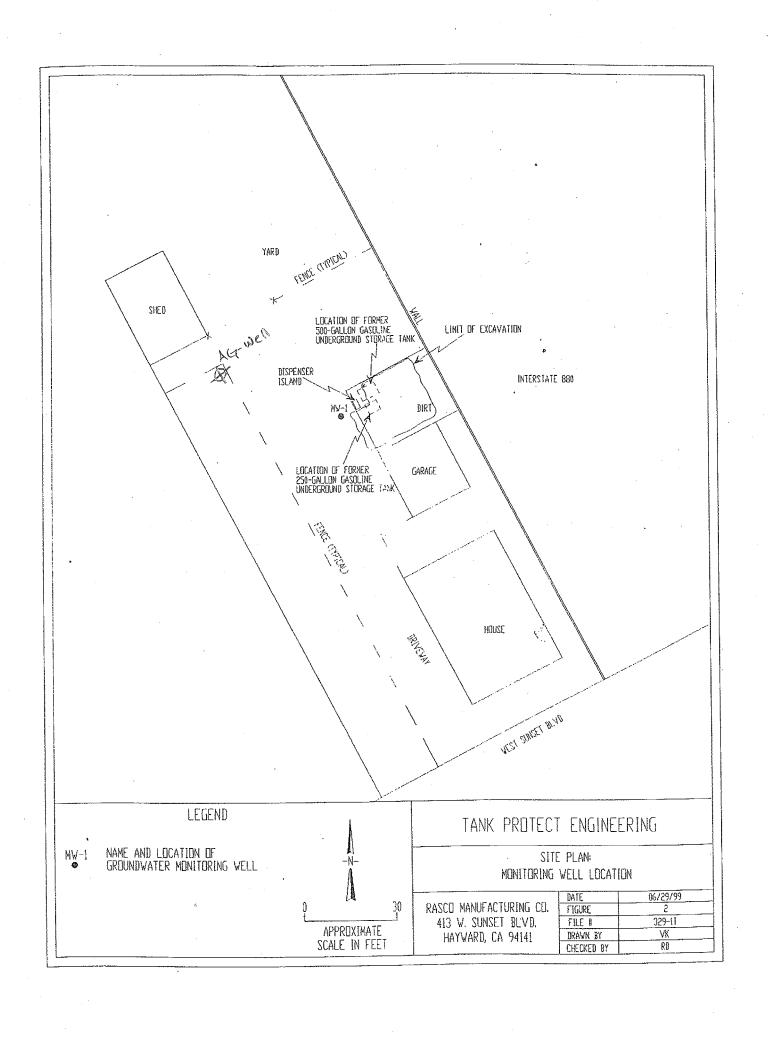
Tank Protect Engineering, Tank Closure Report, Dec. 16, 1994



Location Map 413 W. Sunset Boulevard, Hayward, California Figure

1

ers



# Linda S. Adams Secretary for Environmental Protection

### **State Water Resources Control Board**

#### **Division of Financial Assistance**

1001 I Street • Sacramento, California 95814
P.O. Box 944212 • Sacramento, California • 94244-2120
(916) 341-5660 FAX (916) 341-5806 • www.waterboards.ca.gov/cwphome/ustcf



#### USTCF 5-YEAR REVIEW SUMMARY

**Agency Information** 

igono, incommunica	
Agency Name: Alameda County LOP	Address: 1131 Harbor Bay Parkway
Agency Caseworker: Mark Detterman	Alameda, CA 94502-6577

#### **Case Information**

Case No: RO0000164	Global ID: T060001947
Site Name: RAS-CO Manufacturing	Site Address: 413 West Sunset Boulevard,
Company	Hayward, CA 94541
Responsible Party: Oscar Lang	Address: 413 West Sunset Boulevard,
	Hayward, CA 94541
USTCF Claim No.: 10081	Number of Years Case Open: 16
USTCF Expenditures to Date: \$34,789	

#### **Tank Information**

Tank No.	Size in Gallons	Contents	Closed in Place/ Removed/Active ?	Date
1	500	Gasoline	Remove	November 1994
2	250	Gasoline	Remove	November 1994

#### **Release Information**

Source of Release: UST system

Date of Release: The reported date of the release is 22 November 1994.

Affected Media: Soil and groundwater.

#### **Site Information**

• GW Basin: East Bay Plain

• Beneficial Uses: Agricultural, Municipal and domestic supply

Land Use Designation: Residential

Distance to Nearest Supply Well: According to data available in GeoTracker, there are
no water supply wells within ½ mile of the Site. An agricultural supply well is located
approximately 75 feet west of the former UST locations.

Minimum Groundwater Depth: Unknown

Maximum Groundwater Depth: Unknown

California Environmental Protection Agency



• Groundwater Flow Direction: Predominately to the westerly with an unknown gradient.

• Soil Types: The Site is underlain by sandy clay.

Maximum Depth Sampled: 15.5 feet bgs

**Monitoring Well Information** 

Well Designation	Date Installed	Screen Interval (feet bgs)	Most Recent DTW (feet bgs)
		( -9-/	(June 1999)
MW-1	June 1999	18-33	~25
MW-2	Unknown	Unknown	Unknown
MW-3	Unknown	Unknown	Unknown

**Petroleum Hydrocarbon Constituent Concentration** 

Contaminant	Soil (mọ	g/kg)	Water (u	ıg/L)	WQOs
	Maximum	Latest	Maximum	Latest (June 1999)	(ug/L)
TPHg	9,800	NA	<500	<50	
Benzene	10	NA	<5	< 0.50	1
Toluene	330	NA	<5	< 0.50	150
Ethylbenzene	190	NA	<5	< 0.50	700
Xylenes	620	NA	<15	<0.50	1,750
MTBE	NA	NA	1,200	< 0.50	5
TBA	NA	NA	NA	NA	12
1,2-DCA	NA	NA	NA	NA	0.5

NA: Not Analyzed, Not Applicable or Data Not Available

mg/kg: milligrams per kilogram, parts per million ug/L: micrograms per liter, parts per billion

WQOs: Water Quality Objectives

#### Site Description

The Site is located at 413 West Sunset Boulevard in Hayward, CA. The Site is comprised of a single large structure with paved parking to the west and south. The Site is bounded by residences to the west, north, south, and by Interstate Highway 88 to the east.

#### **Site History/Assessments**

The USTs were removed in November 1994, and over excavation of affected soil occurred in the following months. In 1999, one monitoring well was installed and sampled. At some later time two additional monitoring wells may have been installed. Numerous notices of violation letters have been written, the Alameda County District Attorney was involved during the mid 1990's but no additional data could be found in the files reviewed.

#### **Remediation Summary**

• Free Product: None reported

- Soil Excavation: Approximately 150 cubic yards of affected soil was excavated. This soil was treated spraying dilute hydrogen peroxide and water when the stockpile was being constructed. In 1995, the LOP approved the stockpiled soil to be reused as backfill for the UST excavation.
- In-Situ Soil Remediation: None reportedGroundwater Remediation: None reported

#### **General Site Conditions**

- Geology and Hydrogeology: No data in files reviewed.
- Estimate of Hydrocarbon Mass in Soil: Not reported
- Groundwater Trends: No data in files reviewed.

#### **Sensitive Receptor Survey**

No data in files reviewed.

#### **Risk Evaluation**

No data in files reviewed.

#### Recommendation

The UST Fund staff have completed a 5-Year Review for this claim and offer these recommendations for LOP consideration.

 The UST Fund Staff recommend the LOP either proceed with enforcement actions or close the site.

#### Original signed by 8/26/2010

Pat G. Cullen P. G. Date Water Resources Control Engineer Technical Review Unit (916) 341-5735

#### Original signed by 8/26/2010

Robert Trommer, CHg Date Senior Engineering Geologist Chief, Technical Review Unit (916) 341-5684

#### Monitor Well Data Sheet

Site Name:	413	W. 50	US07		Well/Sample I	ID:	1W-1	
Location:	413		<u>unset</u>	Initial Depth to	Water (DTW)	97.2	;q	
Client:	Ras		<u> </u>	Total Well Depth (TD): 30.51				
Sampler:	4B	<u> </u>			Well Diameter	r (inches):	2	·
Date:	12-16-	10			Did Well Dew	ater?	J	
Purge & Samp		Peri u	ol ded	tube	Purge Rate (li	iters/min):	LIMIN	MAXM4400
Casing Volum		2.41	-		Sample Rate		3.25	<b>1</b>
2" well x 1 foo					4" well x 1 foo	ot = 2.4L	1	
Time	pН	sc	DO	Temp	ORP	DTW	Cumulative Volume	Notes
hh:mm	SU	µmhos/cm	mg/i	°C	mV_	feet bgs	liters	
1013	5.80	722	1.38	18.79	625	22.81	2.5	
1019	5.64	734	8	18.89	58.2	22.81	W 5	0
1023	2.03	735	0	18.84	60.7	2281	1000 T	5
1028	5.61	733	0	18.81	63.6	2281	HAMAS	00
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Total Liters P	urged: \	<u> </u>	Start Purge T	ime:	008	DTW prior to	sample (ft):	22.81
Total Sample	<del>-</del>	40 ML	Stop Purge T	ime:	028	Start Sample	Time: (Č	)28,
Turbidity:			Color:			Odor:	V o	
Length of Tul	Mo oina (ft) ~	۵۰'	Sheen:	<u> </u>		Product:	No	igo (au
Instrument ID		<u> </u>	<u> </u>	10	Last Calibrat		,,,,,	
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#### Monitor Well Data Sheet

Site Name:	43w.	Sunse	+ BNd	. •	Well/Sample I	D: 19	-WC11	
					Initial Depth to	Water (DTW)		<b>\</b>
Client:	Rasco.	- Mainu	factoria	9	Total Well De	pth (TD):	712	
Sampler:	B				Well Diameter	r (inches):	6	
Date: \7	01-01-6	l			Did Well Dewa	ater?	J	
Purge & Sam	ple Method:	\$ SU6	me (5)0	ole Pump	Purge Rate (li	ters/min):	<u>۴</u> .4	
Casing Volum		28.81	me (5):0		Sample Rate		<u>) [3</u>	
2" well x 1 foo	t = 0.6L	,			4" well x 1 foo	t = 2.4L	A 1.15	
Time	рН	SC	DO	Temp	ORP	DTW	Cumulative Volume	Notes
hh:mm	SU	µmhos/cm	mg/l	°C	mV .	feet bgs	liters	
1142	7.90	785	2.71	18.11	-59.1	23,51	a .	
1146	6.39	813	1.49	17.35	-10.1	23.51	73.0	0
1150	6.16	821	1.69	17.29	23.5	23.51	Bo 6.	2
1154	6.11	823	167	16.94	38.3	23.51	& 7.	8
1157	6.08	824	1.771	16.67	40.9	23.51	9 DAM	#70
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Total Liters P	urged:	<b>7</b> .0	Start Purge Ti	ime:	137	DTW prior to	sample (ft):	23.5)
Total Sample	Volume: 20	tome	Stop Purge Ti	me:	157	Start Sample	Time:	1157
Turbidity:	Lon	3	Color: (	cleur		Odor:	No	
Length of Tub	oing (ft)	구3′	Sheen:	No		Product:	NO	
Instrument ID	Hans	na.			Last Calibrate	ed: 800	<u> </u>	
Notes:	-							
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## Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878

2323 Fifth Street, Berkeley, CA 9471O, Phone (510) 486-0900

Laboratory Job Number 224842 ANALYTICAL REPORT

ERS Corp.

1600 Riviera Ave.

Walnut Creek, CA 94596

Project : STANDARD

Location: 413 W. Sunset Blvd

Level : II

<u>Lab ID</u> 224842-001 <u>Sample ID</u> MW-1 224842-002 AG-WELL

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Project Manager

Date: <u>12/29/2010</u>

NELAP # 01107CA



#### CASE NARRATIVE

Laboratory number: 224842 Client: ERS Corp.

Location: 413 W. Sunset Blvd

Request Date: 12/17/10 Samples Received: 12/17/10

This data package contains sample and QC results for two water samples, requested for the above referenced project on 12/17/10. The samples were received cold and intact.

#### Volatile Organics by GC/MS (EPA 8260B):

Low response was observed for tert-butyl alcohol (TBA) in the CCV analyzed 12/23/10 12:11; this analyte met minimum response criteria, and affected data was qualified with "b". No other analytical problems were encountered.

#### SAMPLE ANALYSIS/COMPOSITE REQUEST FORM **CHAIN-OF-CUSTODY**

Invoice to: Environn	nental Risk Sp	ecialties		Date: 1	2/16/10			Pag	e:	1	0	f 1			
Project : 413 W. Su	nset Blvd	1		Locatio	n:413 W.	Sunset E	Blvd								
Client: Ras-Co Man	ufacturing			Locus e	edd 🗌	Excel ed	d∏ p	df re	port	<b>✓</b>	Geo	otrac	ker 6	edf [	<u> </u>
Project Manager/en	nail: kprice@e	erscorp.us, yl	bayram@erscorp.	Tel: (92	:5) 938-1	600 ext			Fax	: (92	25) 9	38-1	610		
Laboratory: C&T				Turna	around Ti	ime (days	) 1	2	3	4	5	6	7	14	Sto
Sampler Signature:	a of		~			T		Site Analy	/eie	Reg	uire	d			х
								\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	7313	TXCG	unc				
Sample ID	Date	Time	Type (Soil, Water, etc.)	# Containers	Preservative	тРНg, ВТЕХ, ЕDС, ЕDВ	Lead Scavengers		ruel Oxygeriales					707	DIOL
MW-1	12/16/10	1038	w	6	HCL	х	Х	,	<b>\</b>						
Ag-Well	12/16/10	1157	W	6	HCL	х	Х	,	<b>\</b>						
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(old & intact.



		Gasoline by GC/MS	
Lab #:	224842	Location:	413 W. Sunset Blvd
Client:	ERS Corp.	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	MW - 1	Batch#:	170308
Lab ID:	224842-001	Sampled:	12/16/10
Matrix:	Water	Received:	12/17/10
Units:	ug/L	Analyzed:	12/23/10
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	102	80-125	
1,2-Dichloroethane-d4	104	71-146	
Toluene-d8	99	80-120	
Bromofluorobenzene	101	80-120	

ND= Not Detected RL= Reporting Limit

Page 1 of 1

3.0



		Gasoline by GC/MS	
Lab #:	224842	Location:	413 W. Sunset Blvd
Client:	ERS Corp.	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	AG-WELL	Batch#:	170308
Lab ID:	224842-002	Sampled:	12/16/10
Matrix:	Water	Received:	12/17/10
Units:	ug/L	Analyzed:	12/23/10
Diln Fac:	1.000	_	

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	imits	
Dibromofluoromethane	101	0-125	
1,2-Dichloroethane-d4	106	1-146	
Toluene-d8	97	0-120	
Bromofluorobenzene	102	0-120	

ND= Not Detected RL= Reporting Limit

Page 1 of 1



Batch QC Report

		Gasoline by GC/MS	
Lab #: Client: Project#:	224842 ERS Corp. STANDARD	Location: Prep: Analysis:	413 W. Sunset Blvd EPA 5030B EPA 8260B
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	170308 12/23/10

Type: BS Lab ID: QC573801

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	84.59 b	68	45-152
Isopropyl Ether (DIPE)	25.00	20.42	82	53-138
Ethyl tert-Butyl Ether (ETBE)	25.00	20.70	83	56-130
Methyl tert-Amyl Ether (TAME)	25.00	21.20	85	63-120
MTBE	25.00	21.07	84	60-123
1,2-Dichloroethane	25.00	28.40	114	70-136
Benzene	25.00	25.20	101	80-124
Toluene	25.00	24.67	99	80-120
1,2-Dibromoethane	25.00	22.41	90	80-120
Ethylbenzene	25.00	26.76	107	80-122
m,p-Xylenes	50.00	53.89	108	80-123
o-Xylene	25.00	25.98	104	80-121

Surrogate	%REC	Limits	
Dibromofluoromethane	102	80-125	
1,2-Dichloroethane-d4	108	71-146	
Toluene-d8	101	80-120	
Bromofluorobenzene	98	80-120	

Type: BSD Lab ID: QC573802

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA)	125.0	84.39 b	68	45-152	0	32
Isopropyl Ether (DIPE)	25.00	20.06	80	53-138	2	20
Ethyl tert-Butyl Ether (ETBE)	25.00	19.50	78	56-130	6	20
Methyl tert-Amyl Ether (TAME)	25.00	21.59	86	63-120	2	20
MTBE	25.00	21.61	86	60-123	3	20
1,2-Dichloroethane	25.00	26.15	105	70-136	8	20
Benzene	25.00	24.85	99	80-124	1	20
Toluene	25.00	24.39	98	80-120	1	20
1,2-Dibromoethane	25.00	23.17	93	80-120	3	20
Ethylbenzene	25.00	26.27	105	80-122	2	20
m,p-Xylenes	50.00	53.51	107	80-123	1	20
o-Xylene	25.00	26.72	107	80-121	3	20

Surrogate	%REC	Limits	
Dibromofluoromethane	101	80-125	
1,2-Dichloroethane-d4	104	71-146	
Toluene-d8	100	80-120	
Bromofluorobenzene	98	80-120	

b= See narrative
RPD= Relative Percent Difference
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5.0



Batch QC Report

		Gasoline by GC/MS	
Lab #:	224842	Location:	413 W. Sunset Blvd
Client:	ERS Corp.	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Matrix:	Water	Batch#:	170308
Units:	ug/L	Analyzed:	12/23/10
Diln Fac:	1.000		

Type: BS Lab ID: QC573803

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	993.4	99	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	99	80-125
1,2-Dichloroethane-d4	101	71-146
Toluene-d8	103	80-120
Bromofluorobenzene	97	80-120

Type: BSD Lab ID: QC573804

Analyte	Spiked	Result	%REC	Limits	RPD 1	Lim
Gasoline C7-C12	1,000	1,030	103	80-120		20

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-125
1,2-Dichloroethane-d4	94	71-146
Toluene-d8	94	80-120
Bromofluorobenzene	97	80-120



Batch QC Report

		Gasoline by GC/MS	
Lab #:	224842	Location:	413 W. Sunset Blvd
Client:	ERS Corp.	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC573805	Batch#:	170308
Matrix:	Water	Analyzed:	12/23/10
Units:	ug/L		

Analyte	Result	RL	
Gasoline C7-C12	ND	50	
tert-Butyl Alcohol (TBA)	ND	10	
Isopropyl Ether (DIPE)	ND	0.50	
Ethyl tert-Butyl Ether (ETBE)	ND	0.50	
Methyl tert-Amyl Ether (TAME)	ND	0.50	
MTBE	ND	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	ND	0.50	
Toluene	ND	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	ND	0.50	
o-Xylene	ND	0.50	

Surrogate	%REC	Limits
Dibromofluoromethane	95	80-125
1,2-Dichloroethane-d4	96	71-146
Toluene-d8	99	80-120
Bromofluorobenzene	101	80-120

ND= Not Detected RL= Reporting Limit

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