DEPARTMENT OF TRANSPORTATION

BOX 23660 OAKLAND, CA 94623-0660 (510) 286-4444 TDD (510) 286-4454



November 8, 2001

2933/Rn 397 Mr. Barney Chan Alameda County Department of Health Services 1131 Harborway Parkway Alameda, California 94502

Subject: Ground Water Monitoring Report for the Second Quarter of 2001 at the South Oakland Maintenance Station located at 1112 29th Avenue in Oakland, Alameda County, California

Dear Mr. Chan:

Attached is a copy of Geocon Consultants, Inc. "Ground Water Monitoring Report, Second Quarter 2001" dated November, 2001 for work performed at the above-referenced site. Results of the cumulative sampling and analysis indicate that Total Petroleum Hydrocarbons as gasoline, benzene and Methyl-tertiary Butyl-Ether (MtBE) are the contaminants of concern. and may have migrated down gradient from the former underground storage tank location.

If you have any questions or require additional information, please contact Ms. Frances Maroni of my staff at (510) 286-5657.

Sincerely,

HARRY Y. YAHATA District Director

RAY BOYER

District Branch Chief

Office of Environmental Engineering

Attachment

cc: Regional Water Quality Control Board, SF Bay Region, RBoyer, File

NO_{V I S} 2007 GROUNDWATER MONITORING REPORT

SECOND QUARTER 2001

SOUTH OAKLAND MAINTENANCE STATION 1112 29TH AVENUE OAKLAND, CALIFORNIA



GEOCON

GEOTECHNICAL & ENMRONMENTAL CONSULTANTS

PREPARED FOR

CALIFORNIA DEPARTMENT OF TRANSPORTATION DISTRICT 4

OAKLAND, CALIFORNIA

TASK ORDER NO. 04-987901-9B

GEOCON PROJECT NO. E8000-06-62

NOVEMBER 2001



NVIRONMENTAL . GEOTECHNICAL . MATERIAL



Project No. E8000-06-62 November 7, 2001

Ms. Frances Maroni California Department of Transportation - District 4 111 Grand Avenue, 14th Floor Post Office Box 23660 Oakland, California 94623-0660

Subject:

GROUNDWATER MONITORING REPORT – SECOND QUARTER 2001

SOUTH OAKLAND MAINTENANCE STATION -- 1112 29TH AVENUE

OAKLAND, CALIFORNIA CONTRACT NO. 43A0012

TASK ORDER NO. 04-987901-9B

Dear Ms. Maroni:

In accordance with California Department of Transportation (Caltrans) Contract No. 43A0012 and Task Order No. 04-987901-9B, Geocon Consultants, Inc. has performed environmental engineering services at the project site. The project site consists of the South Oakland Maintenance Station located at 1112 29th Avenue in Oakland, California.

The accompanying report summarizes the services performed consisting of the collection of groundwater samples and laboratory analyses.

The contents of this report reflect the views of Geocon Consultants, Inc., who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.

If there are any questions concerning the contents of this report, or if Geocon may be of further service, please contact the undersigned at your convenience.

Sincerely,

GEOCON CONSULTANTS, INC

For: Ross J. White Sr. Staff Geologist

RJW:RWD:rjw

(5) Addressee

Richard W. Day, CEG, CHG

Regional Manager

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GROUNDWATER MONITORING REPORT

1.0 INTRODUCTION

This Groundwater Monitoring Report for the California Department of Transportation (Caltrans) South Oakland Maintenance Station was prepared under Caltrans Contract No. 43A0012 and Task Order (TO) No. 04-987901-9B.

1.1 Site Description

The subject site is located at 1112 29th Avenue in Oakland, California. The site is used by Caltrans to store and service maintenance vehicles and equipment. The approximate location of the site is depicted on the attached Vicinity Map presented as Figure 1. The approximate site boundaries and existing structures are depicted on the Site Plan presented as Figure 2.

1.2 Background

This section presents a summary of the project background information based on the background section of the subject TO.

In June 1990, Geo/Resource Consultants, Inc. drilled four soil boreholes in the vicinity of a former 6,000-gallon diesel underground storage tank (UST) and a former 1,000-gallon unleaded gasoline UST. Three of the boreholes were converted to monitoring wells MW2, MW3, and MW4. Soil and groundwater samples collected and analyzed did not exhibit detectable concentrations of total petroleum hydrocarbons as gasoline (TPHg); total petroleum hydrocarbons as diesel (TPHd); or benzene, toluene, ethylbenzene, and xylenes (BTEX).

Between June 13 and 15, 1994, GHH Engineering, Inc. (GHH) removed one 1,000-gallon gasoline UST along with its associated piping and fuel dispenser. The product piping was cut and capped at the dispenser island and at the edge of the tank excavation. Approximately 20 feet of piping was left in place. During the excavation activities, one soil sample was collected from beneath each tank end, one soil sample was collected from beneath the fuel dispenser, and composite soil samples were collected from the excavation stockpile. Groundwater was not encountered during the excavation activities.

The soil samples were analyzed for TPHg and BTEX. The composite soil samples collected from the excavation stockpile exhibited detectable concentrations of TPHg and BTEX. The other soil samples did not exhibit TPHg or BTEX concentrations greater than respective laboratory reporting limits.

In January 1998, additional groundwater samples were collected from each of the three monitoring wells and were analyzed for TPHg, TPHd, BTEX fuel oxygenate compounds (FOCs), volatile organic compounds (VOCs), and lead. The three groundwater samples exhibited TPHd concentrations ranging from 0.06 to 0.2 milligrams per liter (mg/l). The groundwater samples collected from monitoring wells MW3 and MW4 also exhibited lead concentrations of 0.05 and 0.07 mg/l, respectively.

In March 1998, one 6,000-gallon diesel fiberglass UST and its associated product piping were removed and 11 soil samples were collected from beneath the UST, along the piping trench, beneath the dispenser, and from the soil stockpile. TPHd was detected in the stockpile at a maximum concentration of 8.2 milligrams per kilogram (mg/kg). The other soil samples did not exhibit TPHd, BTEX, or methyl tertiary butylether (MTBE) concentrations greater than respective laboratory reporting limits.

Quarterly groundwater monitoring continued from November 1998 through April 2000. During this period the groundwater samples exhibited only concentrations of TPHd.

On April 18 and 19, 2000, additional soil and groundwater samples were collected from seven boreholes. One soil sample exhibited a bis(2-ethylhexyl)phthalate concentration of 0.741 mg/kg. Other soil and groundwater samples did not exhibit TPHd, TPHg, BTEX, FOC, or SVOC concentrations greater than respective laboratory reporting limits.

Analytical laboratory results for the four most recent quarterly groundwater sampling events indicate that TPHg, BTEX, and OCs are present in groundwater samples collected from monitoring wells MW1 and MW3. MTBE has also been detected in groundwater samples collected from monitoring well MW2.

1.3 Purpose

The purpose of the scope of work performed by Geocon is to continue to monitor groundwater for the contaminants of concern to evaluate whether or not the constituents are migrating.

2.0 SCOPE OF SERVICES

The following scope of services was performed as requested by Caltrans in TO No. 04-987901-9B.

2.1 Pre-Field Activities

- Prepared a Health and Safety Plan for the proposed field activities. The health and safety plan
 provided guidelines on the use of personal protective equipment and the health and safety
 procedures to be implemented during the proposed field activities.
- Retained the services of: Advanced Technology Laboratories (ATL), a California-certified hazardous materials testing laboratory (ELAP No. 1838), to perform laboratory analyses.

2.2 Field Activities

On June 26, 2001, monitoring wells MW1 through MW4 were purged and subsequently sampled. The groundwater samples were analyzed for the presence of TPHg, TPHd, BTEX, FOCs, and VOCs.

3.0 INVESTIGATIVE METHODS

3.1 Groundwater Sampling

At the time of groundwater sampling, groundwater was measured at depths ranging from 2.91 to 3.28 meters (9.56 to 10.76 feet) below the top of the well casings. Prior to sampling the wells, approximately three casing volumes of groundwater were purged from each well. The purging was accomplished utilizing a battery-operated submersible pump. The pump was cleansed prior to use by washing the pump with an Alconox solution followed by two rinses with distilled water. During the well purging, groundwater temperature, pH, and conductivity, were periodically recorded.

After purging the monitoring wells, groundwater samples were collected utilizing disposable polyethylene bailers. The groundwater samples were transferred to laboratory-provided containers, labeled, and placed in a cooler with ice and transported to ATL using chain-of-custody documentation. The purged groundwater was containerized in one 55-gallon drum and stored on-site pending disposal.

3.2 <u>Laboratory Analyses</u>

As required by the subject TO, Geocon instructed the analytical laboratory to perform the following laboratory analyses under a standard turn-around-time:

- TPHg following EPA Test Method 8015;
- BTEX following EPA Test Method 8020; and
- FOCs and VOCs following EPA Test Method 8260B.

Reproductions of the laboratory reports and chain of custody documentation are presented as Appendix A. The laboratory QA/QC procedures included the following:

- One method blank for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One sample analyzed in duplicate for every ten samples, batch of samples or type of matrix, whichever was more frequent.
- One spiked sample for every ten samples, batch of samples or type of matrix, whichever was
 more frequent, with spike made at ten times the detection limit or at the analyte level.

Prior to submitting the groundwater samples to the laboratory, the chain-of-custody documentation was reviewed for accuracy and completeness.

4.0 FIELD OBSERVATIONS AND INVESTIGATIVE RESULTS

4.1 Site Hydrogeology

Since June 27, 2000, groundwater beneath the site has ranged in elevation from approximately 26.87 to 27.76 meters (88.15 to 91.08 feet) above mean sea level. Historical groundwater level measurements are presented as Table 1. Based on the most recent sampling event the direction of the groundwater gradient is generally towards the southwest and has a magnitude of approximately 0.024 ft/ft. A Groundwater Elevation Map is presented as Figure 3.

4.2 Analytical Results

A summary of the most recent analytical laboratory results is presented as a portion of Table 2. The distributions of TPHg, benzene, and MTBE concentrations in groundwater are shown on Figure 4. The analytical results are discussed below:

- Gasoline-range hydrocarbons were detected in the groundwater samples collected from monitoring wells MW1, MW2, and MW3 at concentrations of 0.24, 0.11, and 2.5 mg/l, respectively. The groundwater sample collected from monitoring well MW4 did not exhibit gasoline-range hydrocarbon concentrations greater than the laboratory reporting limit of 0.05 mg/l.
- Benzene was detected in the groundwater sample collected from monitoring well MW3 at a
 concentration of 20 micrograms per liter (ug/l) by both EPA Test Methods 8020 and 8260B. The
 other groundwater samples did not exhibit BTEX concentrations greater than the respective
 laboratory reporting limits.
- MTBE, tertiary amyl methylether (TAME), and tert-butanol were detected in the groundwater sample collected from monitoring well MW3 at concentrations of 2,800, 12, and 230 ug/l, respectively. In addition, MTBE was also detected in the groundwater samples collected from monitoring wells MW1 and MW2 at concentrations of 200 and 51 ug/l, respectively. The groundwater sample collected from monitoring well MW4 did not exhibit FOC concentrations greater than the respective laboratory reporting limits.
- The groundwater samples did not exhibit additional VOCs at concentrations greater than the laboratory reporting limit of 5.0 ug/l.

5.0 CONCLUSIONS AND RECOMMENDATIONS

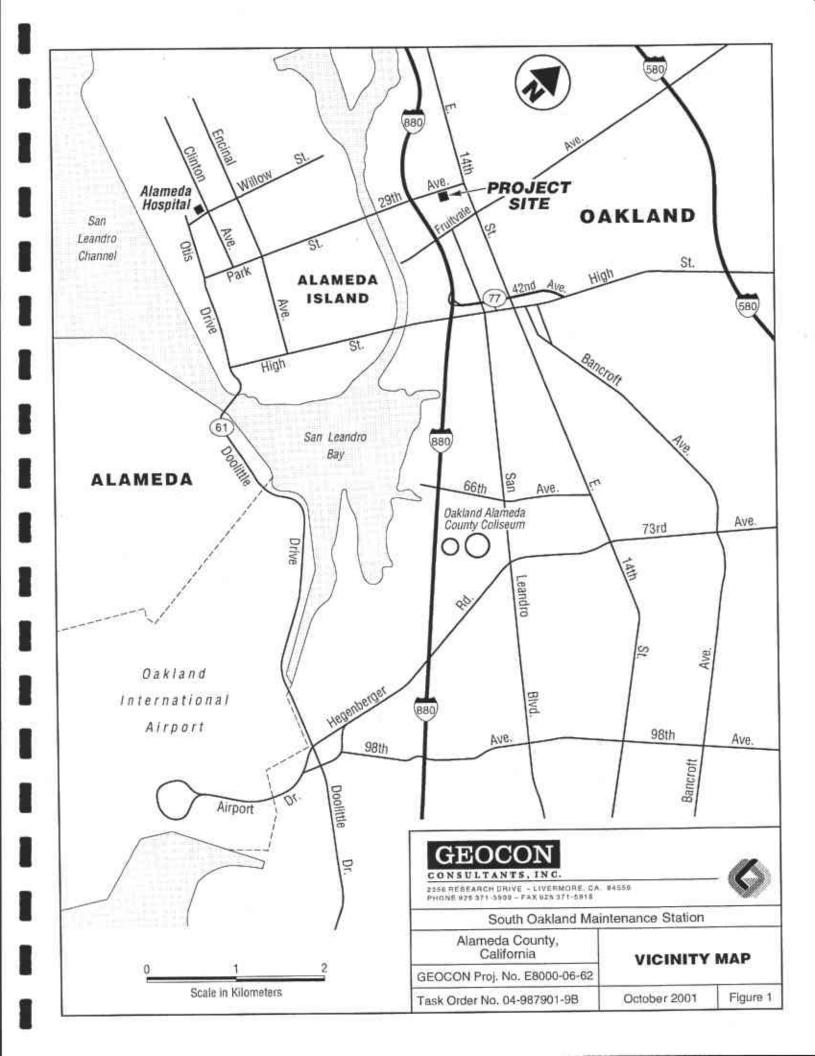
Analytical laboratory data indicate that TPHg, BTEX, and FOC onsite impacts appear to be limited to groundwater in the vicinity of monitoring well MW3, located downgradient of the former UST. Concentrations of these constituents in monitoring well MW3 have decreased since the March 2001 sampling. Based on the most recent groundwater level measurements, the groundwater gradient is directed towards the west. Because additional monitoring wells are not located downgradient (i.e., west) from monitoring well MW3, it is unknown whether if impacted groundwater is migrating offsite. MTBE and TPHg were also detected in monitoring wells MW1 and MW2 at similar concentrations to those detected in the March 2001 sampling event.

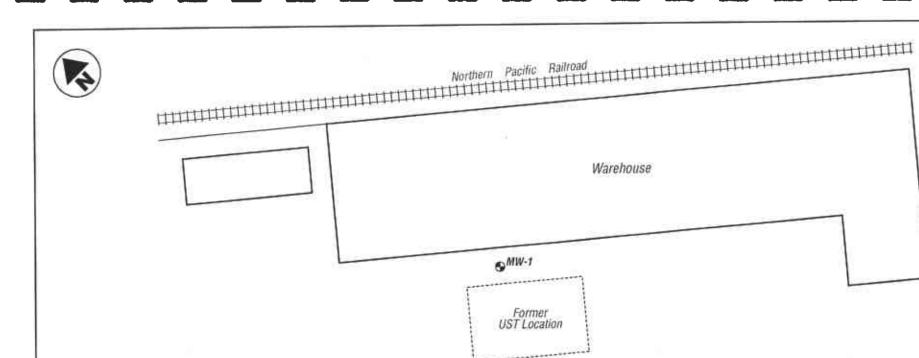
Geocon recommends that the onsite monitoring wells continue to be monitored for TPHg, BTEX, and FOCs. In addition, Geocon recommends that the potential offsite migration of impacted groundwater downgradient of monitoring well MW3 be further evaluated.

6.0 REPORT LIMITATIONS

This report has been prepared exclusively for Caltrans. The information contained herein is only valid as of the date of the report, and will require an update to reflect additional information obtained.

This report is not a comprehensive site characterization and should not be construed as such. The findings as presented in this report are predicated on the results of the limited sampling and laboratory testing performed. In addition, the information obtained is not intended to address potential impacts related to sources other than those specified herein. Therefore, the report should be deemed conclusive with respect to only the information obtained. We make no warranty, express or implied, with respect to the content of this report or any subsequent reports, correspondence or consultation. Geocon strived to perform the services summarized herein in accordance with the local standard of care in the geographic region at the time the services were rendered.





©^{MW-2} ©^{MW-3} ©^{MW-4}
Warehouse

Southern Pacific Railroad

GEOCON

CONSULTANTS, INC.

2356 RESEARCH DRIVE - LIVERMORE, CA. 94550 PHONE 925 371-5000 - FAX 925 371-5815 0

LEGEND:

MW-1 → Approximate Monitoring Well Location

0 5 10m

Scale: 1:500

meda County

South Oakland Maintenance Station

Alameda County, California

SITE PLAN

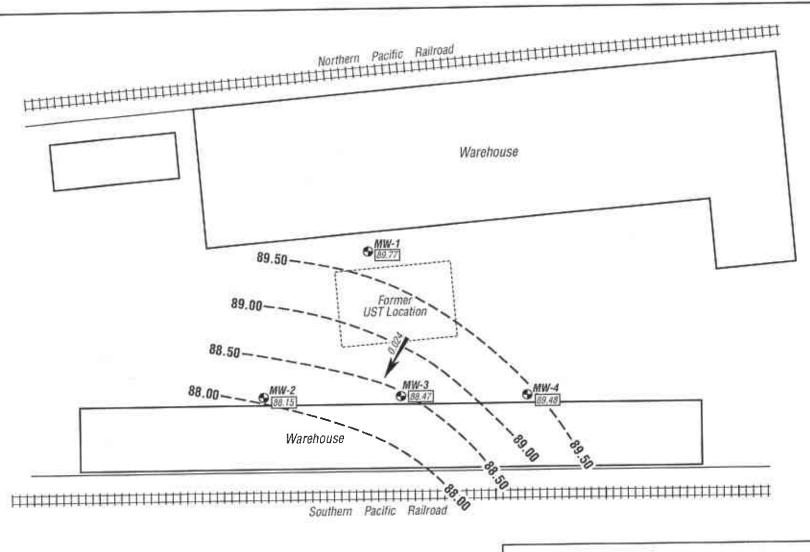
GEOCON Proj. No. E8000-06-62

Task Order No. 04-987901-9B

October 2001

Figure 2





LEGEND:

0.024

MW-1 ← Approximate Monitoring Well Location

Groundwater Elevation Contour (Interval = 0.50 Ft.)

88.15 MSL Elevation of Groundwater

Approximate Groundwater Direction & Gradient





CONSULTANTS, INC

2156 RESEARCH DRIVE - LIVERMORE CA 94550 PHONE 925 371-5900 - FAX 925 371-5915



South Oakland Maintenance Station

Alameda County, California GEOCON Proj. No. E8000-06-62

JUNE 2001

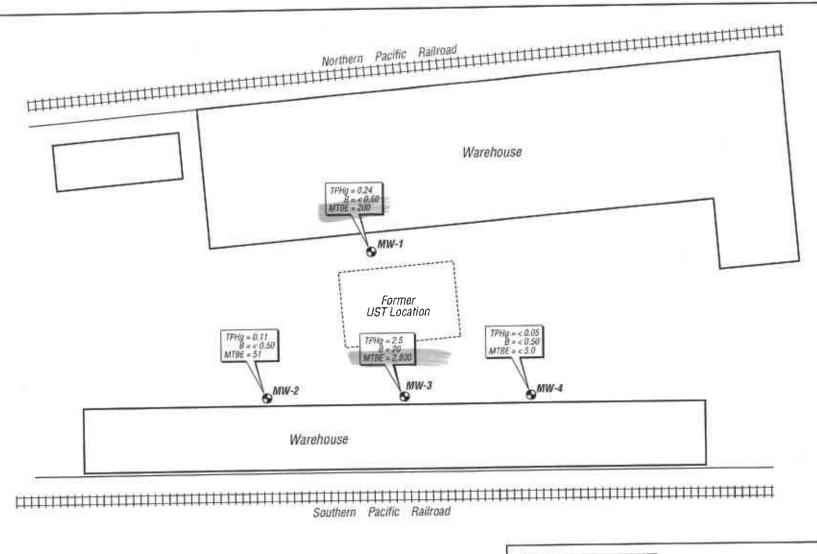
GROUNDWATER

Task Order No. 04-987901-9B

October 2001

Figure 3





LEGEND:

MW-1 Approximate Monitoring Well Location

TPHg = Total Petroleum Hydrocarbons as Gasoline (mg/l)

B = Benzene (ug/l)

MTBE = Methyl tert-butyl ether (ug/l)

10m Scale: 1:500



2356 RESEARCH DRIVE - LIVERMORE, CA. 94550 PHONE 925 371-5900 - FAX 925 371-5915



Figure 4

South Oakland Maintenance Station

Alameda County, California

Petroleum Hydrocarbon Concentrations In Groundwater-June 2001

GEOCON Proj. No. E8000-06-62

November 2001

Task Order No. 04-987901-9B

TABLE 1 SUMMARY OF GROUNDWATER LEVEL MEASUREMENTS SOUTH OAKLAND MAINTENANCE STATION

Well	Date	TOC Elevation (Feet, MSL)	Depth to Water (Feet, BTOC)	Water Elevation (Feet, MSL)
MW1	27-Jun-00	99,57	9.13	90,44
	11-Sep-00	99.57	9.52	90.05
	28-Nov-00	99.57	9,62	89 .95
	27-Mar-01	99.57	8.79	90.78
	26-Jun-01	99.57	9.80	89.77
MW2	27-Jun-00	98.91	9.05	89.86
	11-Sep-00	98.91	9.95	88.96
	28-Nov-00	98.91	9.94	88.97
	27-Mar-01	98.91	8.35	90.56
	26-Jun-01	98.91	10.76	88.15
MW3	27-Jun-00	98.98	8.76	90.22
	11-Sep-00	98.98	9.28	89.70
	28-Nov-00	98.98	9.36	89.62
	27-Mar-01	98.98	8.35	90.63
	26-Jun-01	98.98	10.51	88.47
MW4	27-Jun-00	99.04	8.74	90.30
	11-Sep-00	99.04	9.30	89.74
	28-Nov-00	99.04	9.32	89.72
	27-Mar-01	99.04	7.96	91.08
	26-Jun-01	99.04	9.56	89.48

Notes:

Feet, BTOC = Feet below top of well casing

TOC = Top of well casing

Feet, MSL = Feet, with respect mean sea level

TABLE 2 SUMMARY OF GROUNDWATER ANALYTICAL RESULTS SOUTH OAKLAND MAINTENANCE STATION

Well	Date	TPHg (mg/l)	TPHd (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	ETBE (ug/l)	TAME (ug/l)	Tert-butanol (ug/l)	Di-isopropyl ether (ug/l)	Other VOCs (ug/l)
MW1	27-Jun-00	0.85		20	< 1.0	< 1.0	19	880		< 5	< 50		
IVI VV 1	27-3 u n-00 11-Sep-00	0.83		14	< 1.0	1.6	3.6	860		< 5	190		## #
	28-Nov-00	< 0.5		3.6	< 2.5	< 2.5	< 7.5	610		< 25	< 250		
	27-Mar-01	< 0.20		< 0.50	< 0.50	< 0.50	< 1.0	29	< 5.0	< 5.0	< 200	< 5.0	< 5.0
	26-Jun-01	0.24		< 0.50	< 0.50	< 0.50	< 1.0	200	< 5.0	< 5.0	< 200	< 5.0	< 5.0
MW2	27-Jun-00	< 0.5		< 1.0	< 1.0	< 1.0	< 3.0	86		< 5	< 50		
171 77 2	11-Sep-00	< 0.5		< 1.0	< 1.0	< 1.0	< 3.0	110		< 5	< 50		
	28-Nov-00	< 0.5		< 1.0	< 1.0	< 1.0	< 3.0	130		< 5	< 50		
	27-Mar-01	< 0.20		< 0.50	< 0.50	< 0.50	< 1.0	110	< 5.0	< 5.0	< 200	< 5.0	< 5.0
	26-Jun-01	0.11		< 0.50	< 0.50	< 0.50	< 1.0	51	< 5.0	< 5.0	< 200	< 5.0	< 5.0
MW3	27-Jun-00	2.7	< 0.4	73	1.7	1.2	4.6	5,000		11	1,500		
141 44 2	11-Sep-00	1.9		19	< 1.0	< 1.0	< 3.0	2,700		10	310		
	28-Nov-00	1.7		27	92	< 10	< 30	2,500		< 100	< 1,000		
	27-Mar-01	5.2		220	5.9	2.2	< 1.0	5,500	< 5.0	. 12	270	< 5.0	Benzene = 280
													Ethylbenzene = 7.3 Toluene = 12
	26-Jun-01	2.5		20	< 0.50	< 0.50	< 1.0	2,800	< 5.0	12	230	< 5.0	Benzene = 20

TABLE 2 SUMMARY OF GROUNDWATER ANALYTICAL RESULTS SOUTH OAKLAND MAINTENANCE STATION

Well	Date	TPHg (mg/l)	TPHd (mg/l)	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	ETBE (ug/l)	TAME (ug/l)	Tert-butanol (ug/l)	Di-isopropyl ether (ug/l)	Other VOCs (ug/l)
3.4337.4	27-Jun-00	< 0.5		< 1.0	< 1.0	< 1.0	< 3.0	18		< 5	< 50		
MW4	27-3un-00 11-Sep-00	< 0.5		< 1.0	< 1.0	< 1.0	< 3.0	< 1.0		< 5	< 50		
	28-Nov-00	< 0.5		< 0.5	< 0.5	< 0.5	< 1.5	< 1.0		< 5	< 50		
	2 7-Nov- 00	< 0.20		< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 5.0	< 5.0	< 200	< 5.0	Chloroform $= 5.1$
	26-Jun-01	< 0.05		< 0.50	< 0.50	< 0.50	< 1.0	< 5.0	< 5.0	< 5.0	< 200	< 5.0	< 5.0

Notes:

TPHg = Total Petroleum Hydrocarbons as gasoline following EPA Test Method 8015B

TPHd = Total Petroleum Hydrocarbons as diesel following EPA Test Method 8015B

BTEX = benzene, toluene, ethylbenzene, and total xylenes following EPA Test Method 8020

FOCs = Fuel Oxygenate Compounds (tert-butanol, methyl tertiary butylether [MTBE], di-isopropyl ether, ethyl tertiary butylether [ETBE], and tertiary amyl methylether [TAME]) following EPA Test Method 8020/8260B

VOCs = Volatile Organic Compounds following EPA Test Method 8260B

mg/l = milligrams per liter

ug/1 = micrograms per liter

--- = Analysis not performed or not reported

<= less than indicated reporting limit

APPENDIX A

June 29, 2001

Ross White Geocon Environmental 2356 Research Drive Livermore, CA 94550 TEL: (925) 371-5900 FAX (925) 371-5915

ELAP No:

1838

RE: South Oakland M.S. - E8000-06-62

Work Order No.: 051842

Attention: Ross White

Enclosed are the results for sample(s) received on June 27, 2001 by Advanced Technology Laboratories and tested for the parameters indicated in the enclosed chain of custody.

Thank you for the opportunity to service the needs of your company.

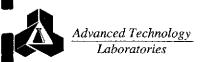
Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Edgar Caballero

Laboratory Director

This cover letter is an integral part of this analytical report.



Print Date: 6/29/01

CLIENT: Lab Order: Geocon Environmental

051842

Project:

South Oakland M.S. - E8000-06-62

Client Sample ID: MW-1

Collection Date: 6/26/01 11:35:00 AM

Lab ID:

051842-001A

Matrix: Water

Analyses	I	Result	Limit Qu	al Units	DF	Date Analyzed
GASOLINE RANGE ORGANI	CS BY GC/FID)	EPA	8015B(M)		
RunID: GC6_010627A	BatchID:	1018G20	W103	PrepDate:		Analyst: JPC
GRO		0.24	0.050	mg/L	1.0	6/27/01
VOLATILE ORGANIC COMPO	UNDS BY GC	/PID	EPA	8020A		
RunID: GC6_010627A	BatchID:	1018G20	W103	PrepDate:	•	Analyst: JPC
Benzene		ND	0.50	µg/L	1.0	6/27/01
Ethylbenzene		ND	0.50	μg/L	1.0	6/27/01
m,p-Xylene		ND	0.50	μg/L	1.0	6/27/01
o-Xylene		ND	0.50	μg/L	1.0	6/27/01
Toluene	•	ND	0.50	µg/L	1.0	6/27/01
VOLATILE ORGANIC COMPO	OUNDS BY GC	/MS	EPA	8260B		
RuniD: MS3_010627A	BatchID:	R01VO	W061	PrepDate:		Analyst: DJK
Di-isopropyl ether		ND	5.0	μg/L	1.0	6/27/01
Ethyl tert-butyl ether		ND	5.0	μg/L	1.0	6/27/01
MTBE		200	5.0	µg/L	1.0	6/27/01
Tert-amyl methyl ether		ND	5.0	μg/L	1.0	6/27/01
Tert-Butanol		ND	200	μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference. H - Samples exceeding analytical holding time

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range M - Not Monitored. Highly Reactive Initials:



Advanced Technology Laboratories

Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-4

Lab Order:

051842

Project:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 12:10:00 PM

Lab ID:

051842-002A

Matrix: Water

Analyses	F	Result	Limit Qua	l Units	DF	Date Analyzed
GASOLINE RANGE ORGAN	ICS BY GC/FID		EPA 8	015B(M)		
RunID: GC6_010627A	BatchID;	1018G20	W103	PrepDate:		Analyst: JPC
GRO		ND	0.050	mg/L	1.0	6/27/01
VOLATILE ORGANIC COMP	OUNDS BY GC	/PID	EPA 8	020A		
RunID: GC6_010627A	BatchID:	I018G20	W103	PrepDate:		Analyst: JPC
Benzene		ND	0.50	µg/L	1.0	6/27/01
Ethylbenzene		ND	0.50	µg/L	1.0	6/27/01
m,p-Xylene		ND	0.50	μg/L	1.0	6/27/01
o-Xylene		ND	0.50	μg/L	1.0	6/27/01
Toluene		ND	0.50	μg/L	1.0	6/27/01
VOLATILE ORGANIC COMP	OUNDS BY GC	/MS	EPA 8	260B		
RunID: MS3_010627A	BatchID:	R01VO	CW061	PrepDate:		Analyst: DJK
Di-isopropyl ether		ND	5.0	μg/L	1.0	6/27/01
Ethyl tert-butyl ether		ND	5.0	μg/L	1.0	6/27/01
MTBE		ND	5.0	μg/L·	1.0	6/27/01
Tert-amyl methyl ether		ND	5.0	μg/L	1.0	6/27/01
Tert-Butanol		ND	200	μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

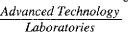
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation rangeM - Not Monitored. Highly Reactive

Initials:



Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-3

Lab Order:

051842

Project:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 12:35:00 PM

Lab ID:

051842-003A

Matrix: Water

Analyses	F	Result	Limit Qual	Units	DF	Date Analyzed
GASOLINE RANGE ORGANIC	S BY GC/FID	ŀ	EPA 80	15B(M)		
RunID: GC6_010627A	BatchID:	1018G20	W103	PrepDate:		Analyst: JPC
GRO		2.5	0.050	mg/L	1.0	6/27/01
VOLATILE ORGANIC COMPO	UNDS BY GC	/PID	EPA 80	20A		
RunID: GC6_010627A	BatchID:	1018G20	W103	PrepDate:		Analyst: JPC
Benzene		20	0.50	μg/L	1.0	6/27/01
Ethylbenzene		ND	0.50	μg/L	1.0	6/27/01
m,p-Xylene		ND	0.50	µg/L	1.0	6/27/01
o-Xylene		ND	0.50	μg/L	1.0	6/27/01
Toluene		ND	0.50	μg/L	1.0	6/27/01
VOLATILE ORGANIC COMPO	UNDS BY GC	/MS	EPA 82	260B		
RuniD: MS3_010627A	BatchID:	R01VO	CW061	PrepDate:		Analyst: DJK
Di-isopropyl ether		ND	5.0	μg/L	1.0	6/27/01
Ethyl tert-butyl ether		ND	5.0	µg/L	1.0	6/27/01
MTBE		2800	100	μ g/L	20	6/27/01
Tert-amyl methyl ether		12	5.0	µg/L	1.0	6/27/01
Tert-Butanol		230	200	μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

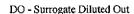
H - Samples exceeding analytical holding time

S - Spike/Surrogate outside of limits due to matrix interference.

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

Initials:





Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-2

Lab Order:

051842

Project:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 1:05:00 PM

Lab ID:

051842-004A

Matrix: Water

Analyses	R	esult	Limit Qu	al Units	DF	Date Analyzed
GASOLINE RANGE ORGANIC	S BY GC/FID		EPA -	B015B(M)		
RunID: GC6_010627A	BatchID:	1018G20	W103	PrepDate:		Analyst: JPC
GRO		0.11	0.050	mg/L	1.0	6/27/01
VOLATILE ORGANIC COMPO	UNDS BY GC/	PID	EPA	8020A		
RunID: GC6_010627A	BatchID:	1018G20	W103	PrepDate:		Analyst: JPC
Benzene		ND	0.50	μg/L	1.0	6/27/01
Ethylbenzene		ND	0.50	μg/L	1.0	6/27/01
m,p-Xylene		ND	0.50	μg/L	1.0	6/27/01
o-Xylene		ND	0.50	μg/L	1.0	6/27/01
Toluene		ND	0.50	μg/L	1.0	6/27/01
VOLATILE ORGANIC COMPO	UNDS BY GC/	MS	EPA	8260B		
RuniD: MS3_010627A	BatchID:	R01VOC	:W061	PrepDate:		Analyst: DJK
Di-isopropyl ether		ND	5.0	μg/L	1.0	6/27/01
Ethyl tert-butyl ether		ND	5.0	μg/L	1.0	6/27/01
MTBE		51	5.0	μg/L	1.0	6/27/01
Tert-amyl methyl ether		ND	5.0	μg/L	1.0	6/27/01
Tert-Butanol		ND	200	μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

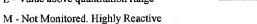
DO - Surrogate Diluted Out

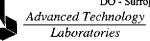
S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

Initials:





051842-005A

Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: TRIP

Lab Order:

051842

Project: Lab ID: South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01

Matrix: Water

Analyses	I	Result	Limit Qu	ıal Units	DF	Date Analyzed
GASOLINE RANGE ORGANIC	S BY GC/FID		EPA	.8015B(M)		
RunID: GC6_010627A	BatchID:	1018G20	W103	PrepDate:		Analyst: JPC
GRO		ND	0.050	mg/L	1.0	6/27/01
VOLATILE ORGANIC COMPO	UNDS BY GC	/PID	EPA	8020A		
RunID: GC6_010627A	BatchID:	1018G20	W103	PrepDate:		Analyst: JPC
Benzene		ND	0.50	μg/L	1.0	6/27/01
Ethylbenzene		ND	0.50	μg/L	1.0	6/27/01
m,p-Xylene		ND	0.50	μg/L	1.0	6/27/01
o-Xylene		ND	0.50	μg/L	1.0	6/27/01
Toluene		ND	0.50	μg/L	1.0	6/27/01
VOLATILE ORGANIC COMPO	UNDS BY GC	/MS	EPA	8260B		
RunID: MS3_010627A	BatchID:	R01VO	CW061	PrepDate:		Analyst: DJK
Di-isopropyl ether		ND	5.0	µg/L	1.0	6/27/01
Ethyl tert-butyl ether		ND	5.0	µg/L	1.0	6/27/01
MTBE		ND	5.0	µg/L	1.0	6/27/01
Tert-amyl methyl ether	•	ND	5.0	μg/L	1.0	6/27/01
Tert-Butanol		ND	200	μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

Initials:



Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-1

Lab Order:

051842

Project:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 11:35:00 AM

Lab ID: 051842-001A Matrix: Water

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOU	JNDS BY GC/MS	E	PA 82	60B		
RunID: MS3_010627A	BatchID: R01V			PrepDate:		Analyst: DJK
1,1,1,2-Tetrachloroethane	ND	5.0		μg/L	1.0	6/27/01
1,1,1-Trichloroethane	ND	5.0		µg/L	1.0	6/27/01
1,1,2,2-Tetrachloroethane	ND	5.0		μg/L	1.0	6/27/01
1,1,2-Trichloroethane	ND	5.0		μg/L	1.0	6/27/01
1,1-Dichloroethane	ND	5.0		μg/L	1.0	6/27/01
1,1-Dichloroethene	ND	5.0		µg/L	1.0	6/27/01
1,1-Dichloropropene	ND	5.0		μg/L	1.0	6/27/01
1,2,3-Trichlorobenzene	ND	5.0		μg/L	1.0	6/27/01
1,2,3-Trichloropropane	ND	5.0		μg/L	1.0	6/27/01
1,2,4-Trichlorobenzene	ND	5.0		μg/L	1.0	6/27/01
1,2,4-Trimethylbenzene	ND	5.0		μg/L	1.0	6/27/01
1,2-Dibromo-3-chloropropane	ND	5.0		μg/L	1.0	6/27/01
1,2-Dibromoethane	ND	5.0		µg/L	1.0	6/27/01
1,2-Dichlorobenzene	ND	5.0		μg/L	1.0	6/27/01
1,2-Dichloroethane	ND	5.0		μg/L	1.0	6/27/01
1,2-Dichloropropane	· ND	5.0		μg/L	1.0	6/27/01
1,3,5-Trimethylbenzene	ND	5.0		μg/L	1.0	6/27/01
1,3-Dichlorobenzene	ND	5.0		μg/L	1.0	6/27/01
1,3-Dichloropropane	ND	5.0		μg/L	1.0	6/27/01
1,4-Dichlorobenzene	ND	5.0		μg/L	1.0	6/27/01
2,2-Dichloropropane	ND	5.0		μg/L	1.0	6/27/01
2-Chlorotoluene	ND	5.0		μg/L	1.0	6/27/01
4-Chlorotoluene	ND	5.0		µg/L	1.0	6/27/01
4-Isopropyltoluene	ND	5.0		μg/L	1.0	6/27/01
Benzene	ND	5.0		μg/L	1.0	6/27/01
Bromobenzene	ND	5.0		μg/L	1.0	6/27/01
Bromodichloromethane	ND	5.0		μg/L	1.0	6/27/01
Bromoform	ND	5.0		μg/L	1.0	6/27/01
Bromomethane	ND	5.0		µg/L	1.0	6/27/01
Carbon tetrachloride	ND	5.0		μg/L	1.0	6/27/01
Chlorobenzene	ND	5.0		µg/L	1.0	6/27/01
Chloroethane	ND	5.0		µg/L	1.0	6/27/01
Chloroform	ND	5.0		µg/L	1.0	6/27/01
Chloromethane	ND	5.0		μg/L	1.0	6/27/01
cis-1,2-Dichloroethene	ND	5.0		µg/L	1.0	6/27/01
Dibromochloromethane	ND	5.0		μg/L	1.0	6/27/01
Dibromomethane	ND	5.0		μg/L	1.0	6/27/01
Dichlorodifluoromethane	ND	5.0)	μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

H - Samples exceeding analytical holding time

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

S - Spike/Surrogate outside of limits due to matrix interference.

DO - Surrogate Diluted Out



051842-001A

Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-1

Lab Order:

051842

Project: Lab ID: South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 11:35:00 AM

on Butter o.

Matrix: Water

Analyses	Resu	ılt Limit	Qual Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOU	NDS BY GC/MS		EPA 8260B		
RunID: MS3_010627A	BatchID: R0	1VOCW061	PrepD	ate:	Analyst: DJK
Ethylbenzene	1	1D 5.0	μg/L	1.0	6/27/01
Hexachlorobutadiene	١	ND 5.0	µg/L	1.0	6/27/01
Isopropylbenzene	٠ ١	ND 5.0	μg/L	1.0	6/27/01
m,p-Xylene	ì	ND 5.0	μg/L	1.0	6/27/01
Methylene chloride	ı	ND 5.0	μg/L	. 1.0	6/27/01
n-Butylbenzene	1	ND 5.0	μg/L	1.0	6/27/01
n-Propylbenzene	1	ND 5.0	μg/L	1.0	6/27/01
Naphthalene	ı	ND 5.0	μg/L	1.0	6/27/01
o-Xyleпе	ı	ND 5.0	μg/L	1.0	6/27/01
sec-Butylbenzene	1	ND 5.0	μg/L	1.0	6/27/01
Styrene	ı	ND 5.0	μg/L	1.0	6/27/01
tert-Butylbenzene	i	ND 5.0	μg/L	1.0	6/27/01
Tetrachloroethene	ı	ND 5.0	μg/L	1.0	6/27/01
Toluene	I	ND 5.0	μg/L	1.0	6/27/01
trans-1,2-Dichloroethene	1	ND 5.0	μg/L	1.0	6/27/01
Trichloroethene	!	ND 5.0	ı μg/L	1.0	6/27/01
Trichlorofluoromethane		ND 5.0	μg/L	1.0	6/27/01
Vinyl chloride		ND 5.0		1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

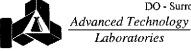
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range

Initials:



051842-002A

Print Date: 6/29/01

CLIENT: Lab Order: Geocon Environmental

051842

Project: Lab ID:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 12:10:00 PM

Client Sample ID: MW-4

Matrix: Water

Analyses	R	esult	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANIC COMPO	JNDS BY GC/I	MS	Ε	PA 82	60B		
RunID: MS3_010627A		R01VOC	W061		PrepDate:		Analyst: DJK
1,1,1,2-Tetrachloroethane		ND	5.0		μg/L	1.0	6/27/01
1,1,1-Trichloroethane		ND	5.0		μg/L	1.0	6/27/01
1,1,2,2-Tetrachloroethane		ND	5.0		μg/L	1.0	6/27/01
1,1,2-Trichloroethane		ND	5.0		μg/L	1.0	6/27/01
1,1-Dichloroethane		ND	5.0		µg/L	1.0	6/27/01
1,1-Dichloroethene	•	ND	5.0		µg/L	1.0	6/27/01
1,1-Dichloropropene		ND	5.0		µg/L	1.0	6/27/01
1,2,3-Trichlorobenzene		ND	5.0		μg/L	1.0	6/27/01
1,2,3-Trichloropropane		ND	5.0		µg/L	1.0	6/27/01
1,2,4-Trichlorobenzene		ND	5.0		μg/L	1.0	6/27/01
1,2,4-Trimethylbenzene		ND	5.0		μg/L	1.0	6/27/01
1,2-Dibromo-3-chloropropane		ND	5.0		μg/L	1.0	6/27/01
1,2-Dibromoethane		ND	5.0		μg/L	1.0	6/27/01
1,2-Dichlorobenzene		ND	5.0		μg/L	1.0	6/27/01
1,2-Dichloroethane		ND	5.0		μg/L	1.0	6/27/01
1,2-Dichloropropane		ND	5.0		μg/L	1.0	6/27/01
1,3,5-Trimethylbenzene		ND	5.0		µg/L	1.0	6/27/01
1,3-Dichlorobenzene		ND	5.0		µg/L	1.0	6/27/01
1,3-Dichloropropane		ND	5.0		μg/L	1.0	6/27/01
1,4-Dichlorobenzene		ND	5.0		µg/L	1.0	6/27/01
2,2-Dichloropropane		ND	5.0		μg/L	1.0	6/27/01
2-Chlorotoluene		ND	5.0		μg/L	1.0	6/27/01
4-Chlorotoluene		ND	5.0		μg/L	1.0	6/27/01
4-Isopropyltoluene		ND	5.0		μg/L	1.0	6/27/01
Benzene		ND	5.0		μg/L	1.0	6/27/01
Bromobenzene		ND	5.0		μg/L	1.0	6/27/01
Bromodichloromethane		ND	5.0		μg/L	1.0	6/27/01
Bromoform		ND	5.0		μg/L	1.0	6/27/01
Bromomethane		ND	5.0		μg/L	1.0	6/27/01
Carbon tetrachloride		ND	5.0		μg/L	1.0	6/27/01
Chlorobenzene		ND	5.0		μg/L	1.0	6/27/01
Chloroethane		ND	5.0		μg/L	1.0	6/27/01
Chloroform		ND	5.0		μg/L	1.0	6/27/01
Chloromethane		ND	5.0		µg/L	1.0	6/27/01
cis-1,2-Dichloroethene		ND	5.0		μg/L	1.0	6/27/01
Dibromochloromethane		ND	5.0		μg/L	1.0	6/27/01
Dibromomethane		ND	5.0		μg/L	1.0	6/27/01
Dichlorodifluoromethane		ND	5.0		μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range M - Not Monitored. Highly Reactive Initials:







Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-4

Lab Order: Project: 051842

051842

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 12:10:00 PM

Lab ID: 051842-002A

Matrix: Water

Analyses	Result	Limit Qu	ial Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOU	JNDS BY GC/MS	EPA	8260B		
RunID: MS3_010627A	BatchID: R01VOC	W061	PrepDate:		Analyst: DJK
Ethylbenzene	ND	5.0	μg/L	1.0	6/27/01
Hexachlorobutadiene	ND	5.0	μg/L	1.0	6/27/01
Isopropylbenzene	ND	5.0	μg/L	1.0	6/27/01
m,p-Xylene	ND	5.0	μg/L	1.0	6/27/01
Methylene chloride	ND	5.0	μg/L	1.0	6/27/01
n-Butylbenzene	ND	5.0	μg/L	1.0	6/27/01
n-Propylbenzene	ND	5.0	μg/L	1.0	6/27/01
Naphthalene	ND	5.0	μg/L	1.0	6/27/01
o-Xylene	ND	5.0	μg/L	1.0	6/27/01
sec-Butylbenzene	ND	5.0	μg/L	1.0	6/27/01
Styrene	ND	5.0	μg/L	1.0	6/27/01
tert-Butylbenzene	ND	5.0	µg/L	1.0	6/27/01
Tetrachloroethene	ND	5.0	µg/L	1.0	6/27/01
Toluene	ND	5.0	μg/L	1.0	6/27/01
trans-1,2-Dichloroethene	ND	5.0	µg/L	1.0	6/27/01
Trichloroethene	ND	5.0	μg/L	1.0	6/27/01
Trichlorofluoromethane	ND	5.0	μg/L	1.0	6/27/01
Vinyl chloride	ND	5.0	μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

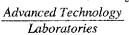
S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range
M - Not Monitored. Highly Reactive



9



Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-3

Lab Order:

051842

Project:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 12:35:00 PM

Lab ID:

051842-003A

Matrix: Water

Analyses	Result	Limit (Qual Units	DF	Date Analyzed
VOLATILE ORGANIC COMPOU	JNDS BY GC/MS	EP	A 8260B		
RunID: MS3_010627A	BatchID: R01VO		PrepDate:		Analyst: DJK
1,1,1,2-Tetrachloroethane	ND	5.0	μg/L	1.0	6/27/01
1,1,1-Trichloroethane	ND	5.0	μg/L	1.0	6/27/01
1,1,2,2-Tetrachloroethane	ND	5.0	μg/L	1.0	6/27/01
1,1,2-Trichloroethane	ND	5.0	μg/L,	1.0	6/27/01
1,1-Dichloroethane	ND	5.0	µg/L	1.0	6/27/01
1,1-Dichloroethene	ND	5.0	μg/L	1.0	6/27/01
1,1-Dichloropropeпе	ND	5.0	μg/L	1.0	6/27/01
1,2,3-Trichlorobenzene	ND	5.0	μg/L.	1.0	6/27/01
1,2,3-Trichloropropane	ND	5.0	μg/L	1.0	6/27/01
1,2,4-Trichlorobenzene	ND	5.0	μg/L	1.0	6/27/01
1,2,4-Trimethylbenzene	ND	5.0	μg/L	1.0	6/27/01
1,2-Dibromo-3-chloropropane	ND	5.0	μg/L	1.0	6/27/01
1,2-Dibromoethane	ND	5.0	μg/L	1.0	6/27/01
1,2-Dichlorobenzene	ND	5.0	μg/L	1.0	6/27/01
1,2-Dichloroethane	ND	5.0	μg/L	1.0	6/27/01
1,2-Dichloropropane	ND	5.0	μg/L	1.0	6/27/01
1,3,5-Trimethylbenzene	ND	5.0	μg/L	1.0	6/27/01
1,3-Dichlorobenzene	ND	5.0	μg/L	1.0	6/27/01
1,3-Dichloropropane	ND	5.0	μg/L	1.0	6/27/01
1,4-Dichlorobenzene	ND	5.0	μg/L	1.0	6/27/01
2,2-Dichloropropane	ND	5.0	μg/L	1.0	6/27/01
2-Chlorotoluene	ND	. 5.0	μg/L	1.0	6/27/01
4-Chlorotoluene	ND	5.0	µg/L	1.0	6/27/01
4-Isopropyltoluene	ND	5.0	μg/L	1.0	6/27/01
Benzene	20	5.0	µg/L	1.0	6/27/01
Bromobenzene	ND	5.0	μg/L	1.0	6/27/01
Bromodichloromethane	.ND	5.0	μg/L	1.0	6/27/01
Bromoform	ŇD	5.0	μg/L	1.0	6/27/01
Bromomethane	ND	5.0	μg/L	1.0	6/27/01
Carbon tetrachloride	ND	5.0	µg/L	1.0	6/27/01
Chlorobenzene	ND	5.0	μg/L	1.0	6/27/01
Chloroethane	ND	5.0	μg/L	1.0	6/27/01
Chloroform	ND	5.0	μg/L	1.0	6/27/01
Chloromethane	ND	5.0	μg/L	1.0	6/27/01
cis-1,2-Dichloroethene	ND	5.0	μg/L	1.0	6/27/01
Dibromochloromethane	ND	5.0	μg/L	1.0	6/27/01
Dibromomethane	ND	5.0	μg/L	1.0	6/27/01
Dichlorodifluoromethane	ND	5.0	µg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

DO - Surrogate Diluted Out

H - Samples exceeding analytical holding time

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

Initials:



M - Not Monitored. Highly Reactive

S - Spike/Surrogate outside of limits due to matrix interference.

Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-3

Lab Order:

051842

Project:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 12:35:00 PM

Lab ID:

051842-003A

Matrix: Water

nalyses R		esult	Limit Qual Units		Units	DF	Date Analyzed	
VOLATILE ORGANIC COMPO	JNDS BY GC/N	/IS	E	PA 82	60B			
RunID: MS3_010627A	BatchID:	R01VOC	W061		PrepDate:		Analyst: DJK	
Ethylbenzene		ND	5.0		μg/L	1.0	6/27/01	
Hexachlorobutadiene		ND	5.0		µg/L	1.0	6/27/01	
Isopropylbenzene		ND	5.0		μg/L	1.0	6/27/01	
m,p-Xylene		ND	5.0		μg/L	1.0	6/27/01	
Methylene chloride		ND	5.0		μg/L	1.0	6/27/01	
n-Butylbenzene		ND	5.0		μg/L	1.0	6/27/01	
n-Propylbenzene		ND	5.0		µg/L	1.0	6/27/01	
Naphthalene		ND	5.0		μg/L	1.0	6/27/01	
o-Xylene		ND	5.0		µg/L	1.0	6/27/01	
sec-Butylbenzene		ND	5.0		μg/L	1.0	6/27/01	
Styrene		ND	5.0		μg/L	1.0	6/27/01	
tert-Butylbenzene		ND	5.0		μg/L	1.0	6/27/01	
Tetrachloroethene		ND	5.0		μg/L	1.0	6/27/01	
Toluene		ND	5.0		μg/L	1.0	6/27/01	
trans-1,2-Dichloroethene		ND	5.0		μg/L	1.0	6/27/01	
Trichloroethene		ND	5.0		μg/L	1.0	6/27/01	
Trichlorofluoromethane		ND	5.0		µg/L	1.0	6/27/01	
Vinyl chloride		ND	5.0		μg/L	1.0	6/27/01	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

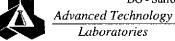
DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range M - Not Monitored, Highly Reactive





051842-004A

Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-2

Lab Order:

051842

Project:

Lab ID:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 1:05:00 PM

Matrix: Water

Analyses	Result	Limit Qu	al Units	DF	Date Analyzed
VOLATILE ORGANIC COMPO	JNDS BY GC/MS	EPA	8260B		
RunID: MS3_010627A	BatchiD: R01VOC		PrepDate:		Analyst: DJK
1,1,1,2-Tetrachloroethane	ND	5.0	μg/L	1.0	6/27/01
1,1,1-Trichloroethane	ND	5.0	μg/L	1.0	6/27/01
1,1,2,2-Tetrachloroethane	ND	5.0	μg/L	1.0	6/27/01
1,1,2-Trichloroethane	ND	5.0	μg/L	1.0	6/27/01
1,1-Dichloroethane	ND	5.0	μg/L	1.0	6/27/01
1,1-Dichloroethene	ND	5.0	μg/L	1.0	6/27/01
1,1-Dichloropropene	ND	5.0	μg/L	1.0	6/27/01
1,2,3-Trichlorobenzene	ND	5.0	μg/L	1.0	6/27/01
1,2,3-Trichloropropane	ND	5.0	μg/L	1.0	6/27/01
1,2,4-Trichlorobenzene	ND	5.0	μg/L	1.0	6/27/01
1,2,4-Trimethylbenzene	ND	5.0	μg/L	1.0	6/27/01
1,2-Dibromo-3-chloropropane	ND	5.0	μg/L	1.0	6/27/01
1,2-Dibromoethane	ND	5.0	μg/L	1.0	6/27/01
1,2-Dichlorobeпzene	ND	5.0	μg/L	1.0	6/27/01
1,2-Dichloroethane	ND	5.0	μg/L	1.0	6/27/01
1,2-Dichloropropane	ND	5.0	μg/L	1.0	6/27/01
1,3,5-Trimethylbenzene	ND	5.0	μg/L	1.0	6/27/01
1,3-Dichlorobenzene	ND	5.0	μg/L	1.0	6/27/01
1,3-Dichloropropane	ND	5.0	μg/L	1.0	6/27/01
1,4-Dichlorobenzene	ND	5.0	μg/L	1.0	6/27/01
2,2-Dichloropropane	ND	5.0	μg/L	1.0	6/27/01
2-Chlorotoluene	ND	5.0	μg/L	1.0	6/27/01
4-Chlorotoluene	ND	5.0	μg/L	1.0	6/27/01
4-Isopropyltoluene	ND	5.0	μg/L	1.0	6/27/01
Benzene	ND	5.0	μg/L	1.0	6/27/01
Bromobenzene	ND	5.0	μg/L	1.0	6/27/01
Bromodichloromethane	ND	5.0	μg/L	1.0	6/27/01
Bromoform	ND	5.0	μg/L	1.0	6/27/01
Bromomethane	ND	5.0	μg/L	1.0	6/27/01
Carbon tetrachloride	ND	5.0	µg/L	1.0	6/27/01
Chlorobenzene	ND	5.0	μg/L	1.0	6/27/01
Chloroethane	ND	5.0	μg/L	1.0	6/27/01
Chloroform	ND	5.0	μg/L	1.0	6/27/01
Chloromethane	ND	5.0	μg/L	1.0	6/27/01
cis-1,2-Dichloroethene	ND	5.0	μg/L	1.0	6/27/01
Dibromochloromethane	ND	5.0	µg/L	1.0	6/27/01
Dibromomethane	ND	5.0	μg/L	1.0	6/27/01
Dichlorodifluoromethane	ND	5.0	μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

S - Spike/Surrogate outside of limits due to matrix interference.

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

E - Value above quantitation range

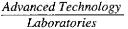
Initials:

DO - Surrogate Diluted Out

M - Not Monitored. Highly Reactive

H - Samples exceeding analytical holding time





Print Date: 6/29/01

CLIENT:

Geocon Environmental

Client Sample ID: MW-2

Lab Order:

051842

Project:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01 1:05:00 PM

051842-004A Lab ID:

Matrix: Water

Analyses	Result	Limit Qu	ıal Units	Units DF Date A		
VOLATILE ORGANIC COMPOUNDS	BY GC/MS	EPA	8260B			
RunID: MS3_010627A E	BatchID: R01VOC	:W061	PrepDate:		Analyst: DJK	
Ethylbenzeпe	ND	5.0	μg/L	1.0	6/27/01	
Hexachlorobutadiene	ND	5.0	μg/L	1.0	6/27/01	
Isopropylbenzene	ND	5.0	μg/L	1.0	6/27/01	
m,p-Xylene	ND	5.0	μg/L	1.0	6/27/01	
Methylene chloride	ND	5.0	μg/L	1.0	6/27/01	
n-Butylbenzene	ND	5.0	μg/L	1.0	6/27/01	
n-Propylbenzene	ND	5.0	μg/L	1.0	6/27/01	
Naphthalene	ND	5.0	μg/L	1.0	6/27/01	
o-Xylene	ND	5.0	μg/L	1.0	6/27/01	
sec-Butylbenzene	ND	5.0	μg/L	1.0	6/27/01	
Styrene	ND	5.0	µg/L	1.0	6/27/01	
tert-Butylbenzene	ND	5.0	μg/L	1.0	6/27/01	
Tetrachloroethene	ND	5.0	μg/L	1.0	6/27/01	
Toluene	ND	5.0	μg/L	1.0	6/27/01	
trans-1,2-Dichloroethene	ND	5.0	μg/L	1.0	6/27/01	
Trichloroethene	ND	5.0	µg/L	1.0	6/27/01	
Trichlorofluoromethane	ND	5.0	μg/L	1.0	6/27/01	
Vinyl chloride	ND	5.0	μg/L	1.0	6/27/01	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

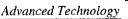
3275 Walnut Avenue

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range M - Not Monitored. Highly Reactive Initials:



051842-005A

Print Date: 6/29/01

CLIENT:

Geocon Environmental

Lab Order: Project: Lab ID:

South Oakland M.S. - E8000-06-62

Collection Date: 6/26/01

Client Sample ID: TRIP

Matrix: Water

Analyses	Result	Limit Qual Units	DF	Date Analyzed
VOLATILE ORGANIC COMPO	UNDS BY GC/MS	EPA 8260B		
RunID: MS3_010627A	BatchID: R01VO	CW061 PrepDate:		Analyst: DJK
1,1,1,2-Tetrachloroethane	ND	5.0 μ g/L	1.0	6/27/01
1,1,1-Trichloroethane	ND	5.0 µg/L	1.0	6/27/01
1,1,2,2-Tetrachloroethane	ND	5.0 µg/L	1.0	6/27/01
1,1,2-Trichloroethane	ND	5.0 µg/L	1.0	6/27/01
1,1-Dichloroethane	ND	5.0 µg/L	1.0	6/27/01
1,1-Dichloroethene	ND	5.0 µg/L	1.0	6/27/01
1,1-Dichloropropene	ND	5.0 μg/L	1.0	6/27/01
1,2,3-Trichlorobenzene	ND	5.0 μg/L	1.0	6/27/01
1,2,3-Trichloropropane	ND	5.0 µg/L	1.0	6/27/01
1,2,4-Trichlorobenzene	ND	5.0 μg/L	1.0	6/27/01
1,2,4-Trimethylbenzene	ND	5.0 μg/L	1.0	6/27/01
1,2-Dibromo-3-chloropropane	ND	5.0 µg/L	1.0	6/27/01
1,2-Dibromoethane	ND	5.0 μg/L	1.0	6/27/01
1,2-Dichlorobenzene	ND	5.0 μg/L	1.0	6/27/01
1,2-Dichloroethane	ND	5.0 µg/L	1.0	6/27/01
1,2-Dichloropropane	ND	5.0 µg/L	1.0	6/27/01
1,3,5-Trimethylbenzene	ND	5.0 µg/L	1.0	6/27/01
1,3-Dichlorobenzene	ND	5.0 µg/L	1.0	6/27/01
1,3-Dichloropropane	ND	5.0 µg/L	1.0	6/27/01
1,4-Dichlorobenzene	ND	5.0 μg/L	1.0	6/27/01
2,2-Dichloropropane	ND	5.0 μg/L	1.0	6/27/01
2-Chlorotoluene	พัก	5.0 μg/L	1.0	6/27/01
4-Chlorotoluene	ND	5.0 μg/L	1.0	6/27/01
4-Isopropyltoluene	ND	5.0 μg/L	1.0	6/27/01
Benzene	ND	5.0 µg/L	1.0	6/27/01
Bromobenzene	ND	5.0 μg/L	1.0	6/27/01
Bromodichloromethane	ND	5.0 μg/L	1.0	6/27/01
Bromoform	ND	5.0 μg/L	1.0	6/27/01
Bromomethane	ND	5.0 μg/L	1.0	6/27/01
Carbon tetrachloride	ND	5.0 μg/L	1.0	6/27/01
Chlorobenzene	ND	5.0 μg/L	1.0	6/27/01
Chloroethane	ND	5.0 μg/L	1,0	6/27/01
Chloroform	ND	5.0 μg/L	1.0	6/27/01
Chloromethane	ND	5.0 μg/L	1.0	6/27/01
cis-1,2-Dichloroethene	ND	5.0 μg/L	1.0	6/27/01
Dibromochloromethane	ND	5.0 µg/L	1.0	6/27/01
Dibromomethane	ND	5.0 μg/L	1.0	6/27/01
Dichlorodifluoromethane	ND	5.0 μg/L	1.0	6/27/01

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range M - Not Monitored. Highly Reactive Initials:



051842-005A

Print Date: 6/29/01

CLIENT:

Geocon Environmental

Lab Order: 051842

Project: Lab ID:

South Oakland M.S. - E8000-06-62

Client Sample ID: TRIP

Collection Date: 6/26/01

Matrix: Water

Analyses	Result	Limit Q	ial Units	DF	Date Analyzed	
VOLATILE ORGANIC COMPOU	INDS BY GC/MS	EPA	8260B		-	
RunID: MS3_010627A	BatchID: R01VC	CW061	PrepDate:		Analyst: DJK	
Ethylbenzene	ND	5.0	μg/L	1.0	6/27/01	
Hexachlorobutadiene	ND	5.0	μg/L	1.0	6/27/01	
Isopropylbenzene	ND	5.0	µg/L.	1.0	6/27/01	
m,p-Xylene	ND	5.0	μg/L	1.0	6/27/01	
Methylene chloride	ND	5.0	μg/L	1.0	6/27/01	
n-Butylbenzene	ND	5.0	μg/L	1.0	6/27/01	
n-Propylbenzene	ND	5.0	μg/L	1.0	6/27/01	
Naphthalene	ND	5.0	µg/L	1.0	6/27/01	
o-Xylene	ND	5.0	μg/L	1.0	6/27/01	
sec-Butylbenzene	ND	5.0	μg/L	1.0	6/27/01	
Styrene	ND	5.0	μg/L	1.0	6/27/01	
tert-Butylbenzene	ND	5.0	μg/L	1.0	6/27/01	
Tetrachloroethene	ND	5.0	μg/L	1.0	6/27/01	
Toluene	ND	5.0	μg/L	1.0	6/27/01	
trans-1,2-Dichloroethene	ND	5.0	μg/L	1.0	6/27/01	
Trichloroethene	ND	5.0	μg/L	1.0	6/27/01	
Trichlorofluoromethane	ND	5.0	μg/L	1.0	6/27/01	
Vinyl chloride	ND	5.0	μg/L	1.0	6/27/01	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

DO - Surrogate Diluted Out

S - Spike/Surrogate outside of limits due to matrix interference.

H - Samples exceeding analytical holding time

E - Value above quantitation range M - Not Monitored. Highly Reactive Initials:



Fax: 562 989-4040





Date: 29-Jun-01

CLIENT:

Geocon Environmental

Work Order:

051842

Project:

South Oakland M.S. - E8000-06-62

QC SUMMARY REPORT

Method Blank

Sample ID 010627BLKW1 MBLK	Batch ID: 1018G20W103	W103 Test Name GASOLINE RANGE ORGANICS BY GC/FID				FID Units mg/L Analysis Date: 6/27/01 SeqNo: 152789				Prep Date:	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.20		0				0			
Sample iD 010627BLKW1 MBLK	Batch ID: I018G20W103	Test Nam	e VOLATILE	ORGANIC COMP	OUNDS BY	GC/PID Uni SeqNo:	. •	Analysis Date: 72	6/27/01	Prep Date:	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50		0				0			
Ethylbenzene	ND	0.50		0				0			
m,p-Xylene	ND	0.50		0				0			
o-Xylene	ND	0.50		0				. 0			
Toluene	ND	0.50		0				0			

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

M - Not Monitored. Highly Reactive

S - Spike/Surrogate outside of limits due to matrix interference

DO - Surrogate Diluted Out

Initials:



Geocon Environmental

R - RPD outside accepted recovery limits

Work Order:

051842

Project:

South Oakland M.S. - E8000-06-62

QC SUMMARY REPORT

Method Blank

Analyle Result PQL SPK value SPK Ref Val %REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Quality 1,1,1-2-Tetrachloroethane ND 0,050 0 0 0 0 0 1,1,1-Tichloroethane ND 0,050 0	IBLK					SeqNo:	1530	05			
1,1,1-frichloroethane	nalyte	Result	PQL	SPK value SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
1,1,1 1,2,2 1,2	1,1,2-Tetrachloroethane	ND	0.050	0	•	··					
1,1,2,7-tichtoroethane	,1,1-Trichloroethane	ND	0.050	0				_			
1,1,2-inchloroethane	,1,2,2-Tetrachloroethane	. ND	0.050	0				•			
1,1-Dichloroethane	,1,2-Trichloroethane	ND	0.050	0				_			
1,1-Dichloropenee ND 0.050 0 0 0 0 0 0 0 0 0	,1-Dichloroethane	ND	0.050	0				-			
1,1-Dichloropropene ND 0.050 0 1,2,3-Trichlorobenzene ND 0.050 0 1,2,4-Trichloropropane ND 0.050 0 1,2,4-Trichlorobenzene ND 0.050 0 1,2,4-Trimethylbenzene ND 0.050 0 1,2-Dibromo-3-chloropropane ND 0.050 0 1,2-Dichlorobenzene ND 0.050 0 1,2-Dichlorobenzene ND 0.050 0 1,2-Dichloropropane ND 0.050 0 1,2-Dichloropropane ND 0.050 0 1,2-Dichloropropane ND 0.050 0 1,3-Dichloropropane ND 0.050 0 1,3-Dichloropropane ND 0.050 0 1,4-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2,-Butanone ND 0.050 0 2-Chl	,1-Dichloroethene	ND	0.050	0				*			
1,2,3-Trichlorobenzene ND 0.050 0 1,2,3-Trichlorobenzene ND 0.050 0 1,2,4-Trichlorobenzene ND 0.050 0 1,2-Dibromo-3-chloropropane ND 0.050 0 1,2-Dibromo-sthane ND 0.050 0 1,2-Dichlorobenzene ND 0.050 0 1,2-Dichlorobenzene ND 0.050 0 1,2-Dichloropropane ND 0.050 0 1,2-Dichloropropane ND 0.050 0 1,3-Dichlorobenzene ND 0.050 0 1,3-Dichloropropane ND 0.050 0 1,3-Dichloropropane ND 0.050 0 1,4-Dichlorobenzene ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2,-Dichlorobluge ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Chloro	,1-Dichloropropene	ND	0.050	0				-			
1,2,3-1 richloropropane ND 0.050 0 1,2,4-Trichlorobenzene ND 0.050 0 1,2-Dibromo-3-chloropropane ND 0.050 0 1,2-Dibromoethane ND 0.050 0 1,2-Dichlorobenzene ND 0.050 0 1,2-Dichloropthane ND 0.050 0 1,2-Dichloroptopane ND 0.050 0 1,3-5-Trimethylbenzene ND 0.050 0 1,3-Dichloroptopane ND 0.050 0 1,3-Dichloroptopane ND 0.050 0 1,4-Dichlorobenzene ND 0.050 0 1,4-Dichloropropane ND 0.050 0 2-Butanone ND 0.050 0 2-Butanone ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.050 0 2-Hexanone ND 0.050 0 2-Hexanone ND	,2,3-Trichlorobenzene	ND	0.050	0				-			
1,2,4-Trimethylbenzene ND 0.050 0 1,2,4-Trimethylbenzene ND 0.050 0 1,2-Dibromo-3-chloropropane ND 0.050 0 1,2-Dichlorobenzene ND 0.050 0 1,2-Dichlorobethane ND 0.050 0 1,2-Dichloropropane ND 0.050 0 1,2-Dichlorobenzene ND 0.050 0 1,3-Dichlorobenzene ND 0.050 0 1,3-Dichlorobenzene ND 0.050 0 1,4-Dichlorobenzene ND 0.050 0 1,4-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2,2-Dichloropthyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.050 0 2-Hexanone ND 0.050 0 2-Hexanone ND 0.050 0 2-Hexanone ND <t< td=""><td>,2,3-Trichloropropane</td><td>ND</td><td>0.050</td><td>0</td><td></td><td></td><td></td><td>=</td><td></td><td>•</td><td></td></t<>	,2,3-Trichloropropane	ND	0.050	0				=		•	
1,2,4-inmethylioenzene	,2,4-Trichlorobenzene	ND	0.050	0				_			
1,2-Dibromo-3-choropropane ND 0.050 0 1,2-Dibromoethane ND 0.050 0 1,2-Dichlorobenzene ND 0.050 0 1,2-Dichloropropane ND 0.050 0 1,2-Dichloropropane ND 0.050 0 1,3-Trimethylbenzene ND 0.050 0 1,3-Dichloropropane ND 0.050 0 1,3-Dichloropropane ND 0.050 0 1,4-Dichlorobenzene ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2-Butanone ND 0.050 0 2-Chloroethyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.050 0 4-Chlorotoluene ND 0.050 0	,2,4-Trimethylbenzene	ND	0.050	0				•			
1,2-Dibromoethane ND 0.050 0 0 0 0 0 1,2-Dichlorobenzene ND 0.050 0 <td< td=""><td>,2-Dibromo-3-chloropropane</td><td>ND</td><td>0.050</td><td>0</td><td></td><td></td><td></td><td>· ·</td><td></td><td></td><td></td></td<>	,2-Dibromo-3-chloropropane	ND	0.050	0				· ·			
1,2-Dichlorobenzene ND 0.050 0 1,2-Dichloropethane ND 0.050 0 1,3-Dichloropropane ND 0.050 0 1,3-Dichlorobenzene ND 0.050 0 1,3-Dichloropropane ND 0.050 0 1,4-Dichlorobenzene ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2-Butanone ND 0.050 0 2-Chloroethyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.050 0 4-Chlorotoluene ND 0.050 0	,2-Dibromoethane	ND	0.050	0				-			
1,2-Dichloroptropane ND 0.050 0 1,2-Dichloroptropane ND 0.050 0 1,3-Dichlorobenzene ND 0.050 0 1,3-Dichloroptropane ND 0.050 0 1,4-Dichlorobenzene ND 0.050 0 2,2-Dichloroptropane ND 0.050 0 2,2-Dichloroptropane ND 0.050 0 2-Butanone ND 0.050 0 2-Chloroethyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.050 0 4-Chlorotoluene ND 0.050 0	,2-Dichlorobenzene	ND	0.050	0				0			
1,2-Dichloropropane	,2-Dichloroethane	ND	0.050	0				•			
1,3,5-Trimethylbenzene ND 0.050 0 1,3-Dichlorobenzene ND 0.050 0 1,4-Dichloropropane ND 0.050 0 1,4-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2-Butanone ND 0.50 0 2-Chloroethyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.50 0 4-Chlorotoluene ND 0.050 0	,2-Dichloropropane	ND	0.050	0				0			
1,3-Dichlorobenzene ND 0.050 0 1,4-Dichloropropane ND 0.050 0 1,4-Dichloropropane ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2-Butanone ND 0.50 0 2-Chloroethyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.50 0 4-Chlorotoluene ND 0.050 0	,3,5-Trimethylbenzene	ND	0.050	0				0			
1,3-Dichloropropane ND 0.050 0 1,4-Dichlorobenzene ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2-Butanone ND 0.50 0 2-Chloroethyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.50 0 4-Chlorotoluene ND 0.050 0	,3-Dichlorobenzene	ND	0.050	0				0			
1,4-Dichlorobenzene ND 0.050 0 2,2-Dichloropropane ND 0.050 0 2-Butanone ND 0.50 0 2-Chloroethyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.50 0 4-Chlorotoluene ND 0.050 0	,3-Dichloropropane	ND	0.050	0				0			
2,2-Dichloropropane ND 0.050 0 2-Butanone ND 0.50 0 2-Chloroethyl vinyl ether ND 0.050 0 2-Chlorotoluene ND 0.050 0 2-Hexanone ND 0.50 0 4-Chlorotoluene ND 0.050 0	,4-Dichlorobenzene	ND	0.050	0				0			
2-Chloroethyl vinyl ether ND 0.050 0 0 2-Chlorotoluene ND 0.050 0 0 2-Hexanone ND 0.50 0 0 4-Chlorotoluene ND 0.050 0 0	2,2-Dichloropropane	ND	0.050	0				0			
2-Chlorotoluene ND 0.050 0 0 2-Hexanone ND 0.050 0 0 4-Chlorotoluene ND 0.050 0 0	2-Butanone	ND	0.50	0				0			
2-Chlorotoluene ND 0.050 0 0 2-Hexanone ND 0.50 0 0 4-Chlorotoluene ND 0.050 0 0	-Chloroethyl vinyl ether	ND	0.050	0				0		•	
4-Chlorotoluene ND 0.050 0 0	•	ND	0.050	0				0			
4-Chlorotoluene ND 0.030	2-Hexanone	ND	0.50	0				0			
· · · · · · · · · · · · · · · · · · ·	I-Chlorotoluene	ND	0.050	0							
		ND	0.050	0				0			

S - Spike/Surrogate outside of limits due to matrix interference



CLIENT:	Geocon Environmen	tal			OC SUMN	MARY REPORT
Work Order:	051842	•				Method Blan
Project:	South Oakland M.S.	- E8000-06-62	2			Mediod Dian
4-Methyl-2-pentan	one	ND	0.50	0	0	
Acetone		ND	0.50	0	0	
Acrolein		ND	0.50	0	0	
Acrylonitrile	•	ND	0.50	0	0	
Веплеле		ND	0.050	0	0	
Bromobenzene		ND	0.050	0	0	
Bromochlorometha	ane	ND	0.050	0	0	
Bromodichloromet	hane .	ND	0.050	0	0	
Bromoform		ND	0.050	0	0	
Bromomethane		ND	0.050	0	0	
Carbon disulfide		ND	0.050	0	0	
Carbon tetrachlorie	de	ND	0.050	0	0	
Chlorobenzene		ND	0.050	0	0	
Chloroethane		ND	0.050	0	0	
Chloroform		ND	0.050	0	0	
Chloromethane		ND	0.050	0	0	
cis-1,2-Dichloroeth	nene	ND	0.050	0	0	
cis-1,3-Dichloropro	pene	ND	0.050	0	0	
Cyclohexanone		ND	0.50	0	0	
Dibromochloromet	thane	ND	0.050	0	0	
Dibromomethane		ND	0.050	0	0	
Dichlorodifluorome	ethane	ND	0.050	0	0	
Ethyl Acetate		ND	0.50	0	0	
Ethyl Ether		ND	0.050	0	0	
Ethylbenzene		ND	0.050	0	0	
Freon-113		ND	0.050	o .	0	
Hexachlorobutadie	ene	ND	0.050	0	0	
Iodomethane		ND	0.050	0	0	
Isopropyibenzene		ND	0.050	0	0	
m,p-Xylene		ND	0.050	0	0	
Methylene chloride	e	ND	0.050	0	0	
MTBE		ND	0.050	0	0	
Qualifiers: ND) - Not Detected at the Repor	ting Limit	B - Analyte detected	d in the associated Method Blank	DO - Surrogate Diluted Out	Initials:
-	Analyte detected below quar		M - Not Monitored	Highly Reactive		3

Work Order:

ND - Not Detected at the Reporting Limit

Geocon Environmental

051842

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

M - Not Monitored. Highly Reactive

S - Spike/Surrogate outside of limits due to matrix interference

QC SUMMARY REPORT

Method Blank

Project: So	uth Oakland M.S E8000-06-62								Wiethod Diam
п-Butylbenzene	ND	0.050	-	0				0	
n-Propyibenzene	ND	0.050		0				0	
Naphthalene	ND	0.050		0				0	
o-Xylene	ND	0.050		0				0	
sec-Butylbenzene	ND	0.050		0				0	
Styrene	ND	0.050		0				0	
tert-Butylbenzene	ND	0.050		0				0	
Tetrachloroethene	ND	0.050		0				0	
Toluene	ND	0.050		0				0	
trans-1,2-Dichloroethene	, ND	0.050		0				0	
trans-1,3-Dichloroproper	ne ND	0.050		0				0	
Trichloroethene	ND	0.050		0				0	
Trichlorofluoromethane	ND	0.050		0			•	0	
Vinyl acetate	ND	0.50		0				0	
Vinyl chloride	ND	0.050		0				0	
Xylenes, Total	ND	0.050	3	0	0	0	0	0	
Sample ID 010627BLK	W1 Batch ID: R01VOCW061	Test Name V	OLATILE ORGA	ANIC COMPOU	JNDS BY GC/	MS Units µ	g/L Analys	s Date: 6/27/01	Prep Date:

Sample ID 010627BLKW	1 Batch ID: R01VOCW061	Test Nam	ne VOLATILE	ORGANIC COMP	POUNDS BY GC/MS Units µg/L Analysis Date: 6/27/01 Prep Date:	
MBLK					SeqNo: 152997	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Q	ual
Di-isopropyl ether	ND	5.0		0	0	
Ethyl tert-butyl ether	ND	5.0		0	0	
MTBE	ND	5.0		0	0	
Tert-amyl methyl ether	· ND	5.0		0	0	
Tert-Butanol	ND	200		0	0	

DO - Surrogate Diluted Out

Initials:_

4

Geocon Environmental

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

Work Order:

051842

Project:

South Oakland M.S. - E8000-06-62

QC SUMMARY REPORT

Method Blank

Sample ID 010627BLKW1 Batch ID MBLK	: R01VOCW061	Test Nam	e VOLATILE O	RGANIC COMP	OUNDS BY	GC/MS Uni SeqNo:		nalysis Date: 6/2 7 75	/01	Prep Date:	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
1,1,1,2-Tetrachloroethane	ND	5.0		0				. 0			
1,1,1-Trichloroethane	ND	5.0		0		•		0			
1,1,2,2-Tetrachloroethane	ND	5.0		0				0			
1,1,2-Trichloroethane	ND	5.0		0				0			
1,1-Dichloroethane	ND	5.0		0				0			
1,1-Dichloroethene	ND	5.0		0				0			
1,1-Dichloropropene	ND	5.0		0				0			
1,2,3-Trichlorobenzene	ND	5.0		0				0			
1,2,3-Trichloropropane	ND	5.0		0				0			
1,2,4-Trichlorobenzene	ND	5.0		0				, 0			
1,2,4-Trimethylbenzene	ND	5.0		0				0			
1,2-Dibromo-3-chloropropane	ND	5.0		0				0			
1,2-Dibromoethane	ND	5.0		0				0			
1,2-Dichlorobenzene	ND	5.0		0				0			
1,2-Dichloroethane	ND	5.0		0				0			
1,2-Dichloropropane	ND	5.0		0			•	0			
1,3,5-Trimethylbenzene	ND	5.0		0				0			
1,3-Dichlorobenzene	ND	5.0		0				0			
1,3-Dichloropropane	ND	5.0		0				0			
1,4-Dichlorobenzene	ND	5.0		. 0				0			
2,2-Dichloropropane	ND	5.0		0				. 0			
2-Chlorotoluene	ND	5.0		0				0			
4-Chlorotoluene	ND	5.0		0				0			
4-Isopropyltoluene	ND	5.0		0				0			
Benzene	ND	5.0		0				0			
Вготовелие	ND	5.0		0				0			
Bromodichloromethane	ND	5.0		0				0			

M - Not Monitored. Highly Reactive

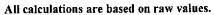
S - Spike/Surrogate outside of limits due to matrix interference



Work Order: 051842	Environmental akland M.S E8000-06-6	2		QC SUMMA	ARY REPORT Method Blank
Bromoform	ND	5.0	0	0	
Bromomethane	ND	5.0	0	0	
Carbon tetrachloride	ND	5.0	0	0	
Chlorobenzene	ND	5.0	0	. 0	
Chloroethane	ND	5.0	0	0	
Chloroform	ND	5.0	0	0	
Chloromethane	ND	5.0	0	0	
cis-1,2-Dichloroethene	ND	5.0	0	0	•
Dibromochloromethane	ND	5.0	0	0	
Dibromomethane	ND	5.0	0	0	
Dichlorodifluoromethane	ND	5.0	0	0	
Ethylbenzene	ND	5.0	0	0	
Hexachlorobutadiene	ND	5.0	0	0	•
Isopropylbenzene	ND	5.0	0	0	
m,p-Xylene	ND	5.0	0	0	
Methylene chloride	ND	5.0	0	0	
MTBE	ND	5.0	0	0	
n-Butylbenzene	ND	5.0	· 0	0	
n-Propylbenzene	ND	5.0	0	0	
Naphthalene	ND	5.0	0	0	
o-Xylene	ND	5.0	0	0	
sec-Butylbenzene	ND	5.0	0	0	
Styrene	ND	5.0	0	0	
tert-Butylbenzene	ND	5.0	0	0	
Tetrachloroethene	ND	5.0	0	0	
Toluene	ND	5.0	0	0	
trans-1,2-Dichloroethene	ND	5.0	0	0	
Trichloroethene	ND	5.0	0	0	·
Trichlorofluoromethane	ND	5.0	0	0	
Vinyl chloride	ND	5.0	0	0	•

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits



M - Not Monitored. Highly Reactive



Advanced Technology Laboratories

Geocon Environmental

Work Order:

051842

Project:

CLIENT:

South Oakland M.S. - E8000-06-62

Date: 29-Jun-01

QC SUMMARY REPORT

Sample Duplicate

Sample ID 051842-001ADU Batch	n ID: 1018G20W103	Test Nam	e GASOLINE	RANGE ORGAN	CS BY GC/F	ID Unit	smg/L A	nalysis Date:	6/27/01	Prep Date:	
DUP						SeqNo:	1527	93			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.23	0.050	0	0	0	0	0	0.24	3	30	
Sample ID 051842-001ADU Batch	h ID: 1018G20W103	Test Nam	e VOLATILE	ORGANIC COMP	OUNDS BY	GC/PID Unit	sμ g /L A	nalysis Date:	6/27/01	Prep Date:	
DUP						SeqNo:	1527	76			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.50	0	0	0	0	0	0	0	30	
Ethylbenzene	ND	0.50	0	0	0	0	0	0	0	30	
m,p-Xylene	ND	0.50	0	0	0	0	0	0	0	30	
o-Xylene	ND	0.50	0	0	0	0	0	0	0	30	
Toluene	ND	0.50	0	0	0	0	0	0	0	30	
Sample ID 051842-004ADU Batcl	h ID: R01VOCW061	Test Nam	e VOLATILE	ORGANIC COMP	OUNDS BY	GC/MS Unit	tsμg/L A	nalysis Date:	6/27/01	Prep Date:	
DUP			i			SeqNo:	1530	04			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Di-isopropyl ether	ND	5.0	0	. 0	0	0	0	0	0	30	
Ethyl tert-butyl ether	ND	5.0	0	0	0	0	0	. 0	0	30	
MTBE	50	5.0	0	0	0	0	0	51	2	30	
Tert-amyl methyl ether	Й	5.0	0	0	0	0	0	0	0	30	
Tert-Butanol	ND	200	0	0	0	0	0	0	0	30	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

M - Not Monitored. Highly Reactive

S - Spike/Surrogate outside of limits due to matrix interference

DO - Surrogate Diluted Out





Geocon Environmental

Work Order:

051842

Project:

South Oakland M.S. - E8000-06-62

QC SUMMARY REPORT

Sample Duplicate

Sample ID 051842-004ADU Batch ID): R01VOCW061	Test Nam	e VOLATILE	ORGANIC COMP	OUNDS BY	GC/MS Uni	its μg/L /	Analysis Date: 6/27	01	Prep Date:	
DUP						SeqNo:	1529	82			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
1,1,1,2-Tetrachloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1,1-Trichloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1,2,2-Tetrachloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1,2-Trichloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1-Dichloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,1-Dichloroethene	ND	5.0	0	0	0	0	0	0	0	30	
1,1-Dichloropropene	ND	5.0	0	0	0	0	0	0	0	30	
1,2,3-Trichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,2,3-Trichloropropane	ND	5.0	0	0	0	0	. 0	0	0	30	
1,2,4-Trichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,2,4-Trimethylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dibromo-3-chloropropane	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dibromoethane	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dichloroethane	ND	5.0	0	0	0	0	0	0	0	30	
1,2-Dichloropropane	ND	5.0	0	0	. 0	0	0	0	0	30	
1,3,5-Trimethylbenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,3-Dichlorobenzene	ND	5.0	0	0	0	0	0	0	0	30	
1,3-Dichloropropane	ND	5.0	0	0	0	0	0	0	0	30	
1,4-Dichlorobenzene	ND	5.0	0	0	0	0	0	0	. 0	30	
2,2-Dichloropropane	ND	5.0	0	0	0	0	0	0	0	30	
2-Chlorotoluene	ND	5.0	0	0	0	0	0	0	0	30	
4-Chlorotoluene	ND	5.0	0	0	0	0	0	0	0	30	
4-isopropyltoluene	ND	5.0	0	0	0	0	0	0	0	30	
Benzene	ND	5.0	0	0	0	0	0	0	0	30	
Bromobenzene	ND	5.0	0	0	0	0	0	0	0	30	
Bromodichloromethane	ND	5.0	0	0	0	0	0	0	0	30	
			1 . 1 1	the executed Math	and Diamir		- Surrogate	Diluted Out	Initi	ale: N	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

M - Not Monitored. Highly Reactive

S - Spike/Surrogate outside of limits due to matrix interference

DO - Surrogate Diluted Out





QC SUMMARY REPORT CLIENT: Geocon Environmental Work Order: Sample Duplicate South Oakland M.S. - E8000-06-62 Project: 5.0 ND Bromoform ND 5.0 Bromomethane 5.0 ND Carbon tetrachloride 5.0 ND Chlorobenzene ND 5.0 Chloroethane 5.0 ND Chloroform O 5.0 Chloromethane ND ND 5.0 cis-1,2-Dichloroethene ND 5.0 Dibromochloromethane 5.0 ND Dibromomethane O 5.0 ND Dichlorodifluoromethane ND 5.0 Ethylbenzene ND 5.0 Hexachlorobutadiene n ND 5.0 Isopropylbenzene O 5.0 ND m,p-Xylene ND 5.0 Methylene chloride 5.0 ND n-Butylbenzene 5.0 ND n-Propylbenzene ND 5.0 Naphthalene 5.0 ND o-Xylene ND 5.0 sec-Butylbenzene 5.0 ND Styrene 5.0 ND tert-Butylbenzene ND 5.0 Tetrachloroethene 5.0 ND Toluene trans-1,2-Dichloroethene ND 5.0 5.0 Trichloroethene ND 5.0 ND Trichlorofluoromethane O 5.0 ND Vinyl chloride

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

M - Not Monitored. Highly Reactive

S - Spike/Surrogate outside of limits due to matrix interference





Advanced Technology Laboratories

Date: 29-Jun-01

CLIENT:

Geocon Environmental

Work Order:

051842

Project:

South Oakland M.S. - E8000-06-62

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID 010627BLKW1	Batch ID: I018G20W103	Test Nam	e GASOLINE	RANGE ORGA	NICS BY GC/F	ID Uni	ts mg/L A	nalysis Date:	6/27/01	Prep Date:	
MS	•					SeqNo:	1527	90			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.87	0.20	1	0	87	50	119	0			
Sample ID 010627BLKW1	Batch ID: 1018G20W103	Test Nam	e GASOLINE	RANGE ORGA	NICS BY GC/F	ID Uni	tsmg/L A	nalysis Date:	6/27/01	Prep Date:	
MSD						SeqNo:	1527	91			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.88	0.20	1	0	89	50	119	0.87	1	20	
Sample ID 010627BLKW1	Batch ID: 1018G20W103	Test Nam	e VOLATILE	ORGANIC COM	POUNDS BY	GC/PID Uni	ts µg/L A	nalysis Date:	6/27/01	Prep Date:	
MS						SeqNo:	1527	73			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	5.4	0.50	5.5	0	98	60	136	0			
Toluene	30	0.50	30	0	100	61	128	0			
Sample ID 010627BLKW1	Batch ID: 1018G20W103	Test Nam	e VOLATILE	ORGANIC COM	POUNDS BY	GC/PID Uni	tsµg/L A	Analysis Date:	6/27/01	Prep Date:	
MSD						SeqNo:	1527	74			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	5.7	0.50	5.5	0	104	60	136	5.4	5	18	_
Toluene	31	0.50	30	0	104	61	128	30	3	22	

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

M - Not Monitored. Highly Reactive

S - Spike/Surrogate outside of limits due to matrix interference

DO - Surrogate Diluted Out





Geocon Environmental

Work Order:

051842

Project:

South Oakland M.S. - E8000-06-62

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID 010627BLKW1	Batch ID: R01VOCW061	Test Nam	e VOLATILE	ORGANIC COMP	OUNDS BY	GC/MS Uni SeqNo:	ts µg/L A 1529	maiysis Date: 6/ 73	27/01	Prep Date:	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
1,1-Dichloroethene	94	5.0	100	0	94	71	120	0			
Benzene	98	5.0	100	0	98	82	122	0			
Chlorobenzene	100	5.0	100	0	100	81	121	0			
Toluene	99	5.0	100	0	99	81	125	0			
					100	80	123	0			
Trichloroethene	100	5.0	100	0	100	00					
Trichloroethene				ORGANIC COMP				nalysis Date: 6/	27/01	Prep Date:	
							ts µg/L A	nalysis Date: 6/	27/01	Prep Date:	
Trichloroethene Sample ID 010627BLKW1				ORGANIC COMP		GC/MS Uni	ts µg/L A	nalysis Date: 6/	27/01 %RPD	Prep Date:	Qual
Trichloroethene Sample ID 010627BLKW1 MSD Analyte	Batch ID: R01VOCW061	Test Nam	ne VOLATILE	ORGANIC COMP	OUNDS BY	GC/MS Uni SeqNo:	ts µg/L A	nalysis Date: 6/		ŕ	Qual
Trichloroethene Sample ID 010627BLKW1 MSD Analyte 1,1-Dichloroethene	Batch ID: R01VOCW061 Result	Test Nam	SPK value	ORGANIC COMP	OUNDS BY	GC/MS Uni SeqNo: LowLimit	ts µg/L A 1529 HighLimit	nalysis Date: 6/ 74 RPD Ref Val		RPDLimit	Qual
Trichloroethene Sample ID 010627BLKW1 MSD Analyte 1,1-Dichloroethene Benzene	Batch ID: R01VOCW061 Result	Test Nam	SPK value	ORGANIC COMP	OUNDS BY %REC 95	GC/MS Uni SeqNo: LowLimit	ts µg/L A 1529 HighLimit	nalysis Date: 6/ 74 RPD Ref Val		RPDLimit	Qual
Trichloroethene Sample ID 010627BLKW1 MSD Analyte 1,1-Dichloroethene	Batch ID: R01VOCW061 Result 95 97	PQL 5.0 5.0	SPK value	ORGANIC COMPOSE SPK Ref Val	%REC 95 97	GC/MS Uni SeqNo: LowLimit 71 82	ts µg/L A 1529 HighLimit 120 122	74 RPD Ref Val 94 98 100	%RPD 1 1	RPDLimit 21 19	Qual

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

M - Not Monitored. Highly Reactive

S - Spike/Surrogate outside of limits due to matrix interference

DO - Surrogate Diluted Out





Advanced Technology Laboratories

Date: 29-Jun-01

CLIENT:

Geocon Environmental

Work Order:

051842

Project:

South Oakland M.S. - E8000-06-62

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID 010627LCSW1	Batch ID: 1018G20W103	Test Nam	e GASOLINE	RANGE ORGAN	ICS BY GC/	FID Uni	ts mg/L A	Analysis Date:	6/27/01	Prep Date:	
LCS						SeqNo:	1527	99			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.87	0.20	1	0	87	64	107	0			
Sample ID 010627LCSW1	Batch ID: I018G20W103	Test Nam	e VOLATILE	ORGANIC COMP	OUNDS BY	GC/PID Uni	tsµg/L A	nalysis Date:	6/27/01	Prep Date:	
LCS				•		SeqNo:	1527	82			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Веплепе	6	0.50	5.5	0	108	58	131	0			
Ethylbenzene	9.1	0.50	8.6	0	106	58	131	0			
m,p-Xylene	37	0.50	35	0	105	58	131	0			
o-Xylene	14	0.50	12	0	114	58	131	0			
Toluene	32	0.50	30	0	108	58	131	0			

Qualifiers:

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Geocon Environmental

Work Order:

051842

Project:

South Oakland M.S. - E8000-06-62

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID 010627LCSW1	Batch ID: R01VOCW061	Test Nam	e VOLATILE	ORGANIC COMP	OUNDS BY	GC/MS Uni	tsµg/L A	nalysis Date: 6/27	/01	Prep Date:	
LCS						SeqNo:	1529	72			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qua
1.1.1-Trichloroethane	89	5.0	100	0	89	30	150	0			
1,1,2,2-Tetrachloroethane	93	5.0	100	0	93	30	150	0			
1,1,2-Trichloroethane	95	5.0	100	0	95	30	150	0			
1,1-Dichloroethane	91	5.0	100	0	91	30	150	0			
1.1-Dichloroethene	91	5.0	100	0	91	30	150	0			
1,2-Dichlorobenzene	93	5.0	100	0	93	30	150	0			
1,2-Dichloroethane	96	5.0	100	0	96	30	150	0			
1,2-Dichloropropane	96	5.0	100	0	96	30	150	0			
1.3-Dichlorobenzene	94	5.0	100	0	94	30	150	0			
1,3-Dichloropropane	94	5.0	100	0	94	30	150	0			
I,4-Dichlorobenzene	95	5.0	100	0	95	30	150	. 0			
2-Chlorotoluene	93	5.0	100	0	93	30	150	0			
Benzene	95	5.0	100	0	95	30	150	0			
Bromodichloromethane	95	5.0	100	0	95	30	150	0			
Bromoform	100	5.0	100	0	100	30	150	0			
Bromomethane	94	5.0	100	0	94	30	150	0			
Carbon tetrachloride	98	5.0	100	0	98	30	150	0			
Chlorobenzene	97	5.0	100	0	97	30	150	0			
Chloroethane	93	5.0	100	0	93	30	150	0			
Chloroform	89	5.0	100	0	89	30	150	0			
Chloromethane	76	5.0	100	0	76	30	150	0			
Dibromomethane	96	5.0	100	0	96	30	150	0			
Dichlorodifluoromethane	75	5.0	100	0	75	30	150	0			
Ethylbenzene	97	5.0	100	0	97	30	150	0			
m,p-Xylene	190	5.0	200	0	97	30	150	0			
Methylene chloride	88	5.0	100	0	88	30	150	0		•	
MTBE	89	5.0	100	0	89	30	150	0		^	
Oualifiers: ND - Not Dete	ected at the Reporting Limit	B - Ana	lyte detected in	the associated Meth	od Blank	DC	- Surrogate l	Diluted Out	Init	ials:	

- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- M Not Monitored. Highly Reactive
- S Spike/Surrogate outside of limits due to matrix interference

QC SUMMARY REPORT Geocon Environmental CLIENT: Work Order: 051842 Laboratory Control Spike - generic South Oakland M.S. - E8000-06-62 Project: 0 150 96 30 100 0 96 5.0 o-Xylene 0 99 30 150 0 99 5.0 100 Tetrachloroethene 0 30 150 95 0 95 5.0 100 Toluene 90 30 150 100 0 90 5.0 trans-1,2-Dichloroethene 95 30 150 95 5.0 100 Trichloroethene 91 30 150 100 5.0 Trichlorofluoromethane 91 30 150 87 87 5.0 100 Vinyl chloride

Qualifiers:

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B - Analyte detected in the associated Method Blank

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DO - Surrogate Diluted Out



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Client: Geocon (East Bay) Address				is: Z	356	k	lesearch Dr					TEL: (925) 37								
Attn: Ross white City				Live	Mo	ce_			State	COX	Zip	Code 4	Signature)	FAX:	<u> </u>)	—	5915		
Project Name: South Ontland W.S. Project #: 58000-0						El-man and	وح المحالية	mpler: Recelv		inted blame) l'' L Signature and	wis.		<u>iilk</u> Eso		7	Date	: Lef	76 26		ime: /700
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Indica	eby authorize ATL to perform ated below: igct Mgr /Submitter: Print Name	lo Zichel C	end Report To: ttn: o: ddress State			Bill To: Attn: Co: Addres City	ss		State_	Zip			8hr		TAT					ч°С
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• 1	FAT starts 8 a.m. following	3= Emer	gency workda	C= Critical D= Urgent S Workdays E= Routine 7 Workdays								Preservatives: H=Hcl N=HNO ₃ S=H ₂ SO ₄ C=4°C								
5	samples received after 5 p	o.m. Contr	A= ≤ 24 hr											Z=Zn(AC)2 O=NaOH T=N				T=Na ₂ S ₂ O ₃		

FAX	
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TO: DIDNE

Phone Fax Date 6/27/01

Number of pages including cover sheet

FROM: Ross J. White

Geocon Consultants, Inc. 5673 W. Las Positas Blvd., Suite 205

Pleasanton, CA 94588

Phone Fax 925.469.9750 925.469.9749

CC:

REMARKS: Urgent

For your review

Reply ASAP

Please Comment

The water samples you received for Georon's project South Dakland MS (EE000-06-62) Should be analyzed for TPHOIBTEX (2015/2020) and VOCS (FOCS (2260). The LOC indicates VOCS (5006) (2260) this is a mistak.

Thanks - Ross