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Alameda County Environmental Health

August 31, 2007

Mr. Steven Plunkett Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: Soil and Grab Groundwater Investigation Results Fuel Leak Case No. RO0002822 Watergate Office Towers 2000 Powell Street Emeryville, California

Hines

Dear Mr. Plunkett:

Enclosed is the Soil and Grab Groundwater Investigation Results prepared by Geomatrix Consultants, Inc., for the property owned by NOP Watergate, LLC and located at 2000 Powell Street in Emeryville, California. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document are true and correct to the best of my knowledge. We appreciate, in advance, your further consideration of our request for a no further action letter with regard to this site.

Sincerely,

George Clever

Enclosure



August 31, 2007 Project 12924.000

Mr. Steven Plunkett Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502-6577

Subject: Soil and Grab Groundwater Investigation Results Fuel Leak Case No. RO0002822 Watergate Office Towers 2000 Powell Street Emeryville, California

Dear Mr. Plunkett:

On behalf of Hines Interests (Hines),¹ Geomatrix Consultants, Inc. (Geomatrix), has prepared this report presenting the results of a soil and grab groundwater investigation at 2000 Powell Street in Emeryville, California (the site; Figure 1). The objective of the investigation was to evaluate whether there is an environmental impact specific to the former underground storage tanks (USTs) and associated fuel dispensers previously located on the site. The investigation was performed in accordance with the May 31, 2007 Work Plan² as amended and approved by the Alameda County Environmental Health (ACEH) in a June 7, 2007 letter.

BACKGROUND

The site is located within a commercial office complex built upon a peninsula in the San Francisco Bay. Beginning in the 1930s, non-engineered fill, consisting of debris and industrial waste, was placed to construct the peninsula. Reportedly, the thickness of the fill ranges from 16 to 22 feet, and overlies young Bay Mud. The fill material includes concrete and wood debris, roofing shingles, tar paper, linoleum, asbestos, asphalt, and roofing scraps/debris. Subsurface investigations on the peninsula were conducted in 1989 (Figure 2). Soil and groundwater sampling conducted at that time indicated that the peninsula's subsurface is impacted with total petroleum hydrocarbons quantified as gasoline (TPHg), diesel (TPHd), and motor oil (TPHmo), metals, semi-volatile and volatile organic compounds (SVOCs and VOCs), and asbestos. Previous environmental investigation reports have attributed the source of the subsurface impacts to the fill material. Analytical data from previous investigations is presented in the May 31, 2007 Work Plan.

¹ Ownership of Watergate Property lies with NOP Watergate, LLC.

² Work Plan for Soil and Groundwater Investigation, Fuel Leak Case No. RO0002822, Watergate Office Towers, 2000 Powell Street, Emergville, California, Geomatrix Consultants, Inc., May 31, 2007.



The site formerly contained two USTs, two fuel dispensers, and associated piping located south of Tower III (Figure 2); the USTs reportedly stored gasoline. The USTs and fuel dispensers were removed in 1998 and the associated fuel pipelines were reportedly rinsed and abandoned in-place. Analytical results of samples collected during UST removal activities indicated that soil from the excavated tank pit was impacted with TPHg, benzene, toluene, ethylbenzene, and xylenes (collectively BTEX) at concentrations of 5.5, 0.057, 0.47, 0.15 and 1.96 milligrams per kilogram (mg/kg), respectively. Analytical results of a grab water sample collected from the UST excavation indicated that the water in the excavation was impacted with total TPHg at a concentration of 30,000, and BTEX at concentrations of 1,000, 6,900, 380, and 4,500 micrograms per liter (μ g/l), respectively. Additionally, TPHg, toluene, ethylbenzene, and xylenes were detected in a shallow soil sample collected beneath one of the former fuel dispensers at concentrations of 27,000, 160, 130, and 1,910 mg/kg, respectively. No groundwater samples were collected beneath or near the former fuel dispensers.

The UST removal report, submitted to ACEH on September 18, 1998 by Golder Associates,³ recommended no further action in regard to the former USTs and fuel dispensers, stating that "petroleum hydrocarbons detected in soil and groundwater are derived from site fill materials and represent background conditions." This conclusion was based on analytical results from a 1989 investigation⁴ which indicated elevated concentrations of petroleum hydrocarbons and BTEX at various locations on the peninsula. However, notwithstanding Golder's conclusion, in a letter issued on March 26, 2007,⁵ ACEH requested that additional investigation be conducted to evaluate potential impacts from the former UST system.

SUBSURFACE INVESTIGATION METHODOLOGY

Because it is understood that the entire peninsula is composed of undocumented fill with unknown chemical impacts, ACEH agreed to focus this environmental investigation on the former USTs and associated fuel dispensers. As such, the objective of the proposed investigation was to evaluate whether an environmental impact specific to the former USTs and fuel dispensers exists on the site.

³ Removal of Two 10,000 Gallon Capacity Underground Storage Tanks, Watergate Towers Property, 2200 Powell Street, Emeryville, California, Golder Associates Inc., September 18, 1998.

⁴ *Phase II Preliminary Environmental Site Assessment, Lathrop Property, Emeryville, California,* Woodward-Clyde Consultants, March 13, 1989.

⁵ *Fuel Leak Case No. RO0002822, Spieker Properties, 2000 Powell Street, Emeryville, California,* Alameda County Environmental Health, March 26, 2007.



As presented in the work plan, Geomatrix proposed to collect soil and groundwater samples from four targeted locations; two in the vicinity of the former UST excavation, and two in the vicinity of the former fuel dispensers. Soil and groundwater sampling locations are shown on Figure 3.

Prior to initiating subsurface investigation activities, Geomatrix marked boring locations, obtained necessary drilling permits, and prepared a site-specific health and safety plan. Geomatrix notified Underground Service Alert 48 hours prior to drilling and contracted with Subsurface Locating Services of Petaluma, California, to screen each boring location prior to drilling.

On July 17, 2007, three borings were advanced at the site; two borings in the vicinity of the former UST excavation, and one boring in the vicinity of the former fuel dispensers (Figure 3). Three attempts were made to advance an additional boring, SB-03, located adjacent to the former fuel dispensers. During the first attempt, underground utilities were encountered at approximately 2.5 feet below ground surface (bgs). During the two subsequent attempts, a concrete slab was encountered at approximately 1 foot bgs. Sample collection attempts at this location were abandoned due to constraints by subsurface utilities and the questionable potential relevance of data collected at a distance from the former fuel dispensers.

Borings SB-01, SB-02, and SB-04 were successfully advanced by Precision Sampling, Inc. of Richmond, California, using a hydraulic direct-push drilling rig equipped with a dual-tube continuous sampling system. Boring SB-01 was advanced to 18 feet bgs, SB-02 was advanced to 19 feet bgs, and SB-04 was advanced to 16 feet bgs. Soil was logged by a Geomatrix field geologist in accordance with the ASTM International Standard D2488 and the Uniform Soil Classification System. Odors, discoloration, staining, and sheens were noted, if observed.

Recovered soil was screened in the field with an organic vapor meter equipped with a photoionization detector. Two soil samples were collected from each boring location and submitted for laboratory analysis. In accordance with the ACEH June 7, 2007 approval of the Work Plan, soil samples were collected directly above the soil/groundwater interface, and at the bottom of each boring. The soil samples collected at the bottom of each boring were placed on hold at the analytical laboratory pending results of the shallower samples.⁶ Soil samples were collected in new, clean, butyrate liners and sealed at each end with Teflon[®] sheets, plastic end caps, and silicone tape.

⁶ As discussed with ACEH staff, the deeper samples would be analyzed if analytical results for shallower samples suggested an impact from the former gasoline USTs or dispensers.



Grab groundwater samples were collected by placing a temporary well point in the borehole and retracting the drive casing approximately 5 feet to expose the well screen. The temporary well point consisted of ¾-inch diameter Schedule 40 polyvinyl chloride (PVC) casing with 5 feet of factory-slotted PVC well screen. The samples were collected using a new, disposable bailer and decanted into laboratory-supplied containers.

Soil and grab groundwater samples were labeled, sealed in plastic bags, and stored in an icechilled cooler prior to delivery to Curtis and Tompkins, Ltd., a California Department of Health Services-certified laboratory, in accordance with Geomatrix chain-of-custody protocols. For quality assurance/quality control (QA/QC) purposes, one soil matrix spike/matrix spike duplicate sample, equipment blank samples for both soil and water, and one blind duplicate groundwater sample were collected. Additionally, a trip blank accompanied the samples submitted to the laboratory.

Following completion of sampling activities, each boring was grouted to ground surface according to the requirements specified by the permitting agency (Alameda County Public Works Department). Borings were completed at ground surface to match existing conditions.

INVESTIGATION RESULTS

Lithology

The site lithology described herein is based on observations of the soil core generated by Geomatrix during drilling at the site. Lithologic logs are presented in Attachment 1. Due to the historical non-engineered filling at the site, lithology varies greatly between boring locations. Soils ranging from lean clay to poorly graded gravel with sand were encountered. Debris (timber, plastic, brick, and roofing materials) was observed in each boring. No odors, discoloration, staining, or sheens were observed while logging the soil cores. Groundwater was observed in the soil cores between 12 and 13.5 feet bgs.

Analytical Results

Analytical results are summarized in Table 1. The laboratory analytical report is included as Attachment 2. Each sample was analyzed for the following constituents:

- TPHg and TPHd;
- BTEX;
- methyl tert-butyl ether (MTBE), tert-butyl alcohol (TBA), di-isopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), and tert-amyl ether (TAME); and
- ethanol, 1,2-dichloroethane (EDC), and 1,2-dibromoethane (EDB).



Soil analytical results were compared to Environmental Screening Levels (ESLs) for commercial/industrial land use where groundwater is not a current or potential drinking water source as published by the San Francisco Bay Regional Water Quality Control Board⁷ (Water Board). Concentrations of compounds detected below the corresponding screening levels (i.e., ESLs) are assumed to not pose a significant threat to human health and the environment. TPHd was detected in the shallower soil samples (i.e. samples collected at 6 and 7 feet bgs) at concentrations ranging from 6.5 to 120 mg/kg, below its ESL of 500 mg/kg. TPHg, BTEX and the fuel oxygenates were not detected above the laboratory reporting limit in any soil sample. Because the analytical results for the shallower soil samples indicated the absence of gasoline-related constituents, the deeper soil samples were not analyzed.

Grab groundwater analytical results were compared to ESLs for groundwater where groundwater is not a current or potential drinking water source. TPHd was detected in grab groundwater sample SB-02-GW at a concentration of 950 μ g/l, above the ESL of 640 μ g/l but at the same order of magnitude. All other constituents were not detected or detected below their respective ESLs in all samples.

No constituents were detected above the laboratory reporting limits in QA/QC samples (equipment blank samples for both soil and water, and trip blank). Sample SB-11-GW is a blind duplicate of sample SB-01-GW (Table 1). Based on results from the analysis of QA/QC samples, the laboratory data is both precise and accurate.

CONCLUSIONS

Low concentrations of TPHd in soil samples are likely due to historical fill on the site, as diesel was not stored in the former USTs targeted during this investigation and TPHd has been detected in soil samples collected in other areas of the peninsula. TPHd was the only compound detected in soil samples above the laboratory's reporting limits. The absence of TPHg, BTEX, and fuel oxygenate compounds in soil samples indicate that the elevated TPHg concentrations found in soil samples during the removal of the USTs and fuel dispensers likely were confined to a limited area and/or have naturally attenuated. This conclusion is further supported by the general absence of gasoline-related constituents in groundwater.

Based on the current laboratory analytical results and previous investigations at the site, groundwater is somewhat impacted with TPHd, but likely not at levels posing a significant human health risk given that groundwater beneath the site is not a current or potential source

⁷ Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final, Regional Water Quality Control Board, San Francisco Bay Region, February 2005.



of drinking water. As diesel was not stored in the former USTs targeted during this investigation, the TPHd concentrations in site groundwater are likely due to historical fill on the site. TPHg, BTEX, and fuel oxygenate compounds are not present at concentrations above ESLs or at concentrations that would suggest a significant impact from the former gasoline USTs or dispensers.

Based on the general absence of gasoline-related constituents in the subsurface, on behalf of Hines, we respectfully request that ACEH issue a determination that no further action is required at this site at this time and close the case number listed above in its records.

Please feel free to call either of the undersigned if you have any questions.

Sincerely yours, GEOMATRIX CONSULTANTS, INC 1 Gallardo Jusan Paisha Jorgensen, PG #7806 Susan M. Gallardo, PE #C38154 **Project Geologist** rincipal Engineer PJ/SMG/ldu Attachments: Table 1 - Summary of Soil and Grab Groundwater Sampling Results Figure 1 – Site Location Map Figure 2 – Previous Sampling Locations

Figure 3 – Soil and Grab Groundwater Sampling Locations Attachment 1 – Lithologic Logs

Attachment 2 - Analytical Laboratory Report

cc: Mr. Dan Poritzky, Hines Mr. George Clever, Hines



TABLE



TABLE 1

SUMMARY OF SOIL AND GRAB GROUNDWATER SAMPLING RESULTS Watergate Towers Emeryville, California

SOIL

				SOIL SAMPLE ANALYTICAL RESULTS												
		Sample Depth						Total								
Sample ID	Date	(feet bgs)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	EDB	1,2-DCA	Ethanol
Soil sample co	oncentrations r	reported in millli	gram per kilograi	m (mg/kg).												
SB-01-7	7/17/2007	7	6.5 J	< 0.93 ²	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.096	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.0048	< 0.96
SB-02-7	7/17/2007	7	80 J	< 0.93	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.094	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.0047	< 0.94
SB-04-6	7/17/2007	6	120 J	< 0.94	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.098	< 0.0049	< 0.0049	< 0.0049	< 0.0049	< 0.0049	<0.98
Environmental Screening Level ³ 500 400						9.3	32	11	5.6	110				0.02	0.07	45

GROUNDWATER

				GRAB GROUNDWATER SAMPLE ANALYTICAL RESULTS												
		Sample Depth						Total								
Sample ID	Date	(feet bgs)	TPHd	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	TBA	DIPE	ETBE	TAME	EDB	1,2-DCA	Ethanol
Grab groundw	Grab groundwater sample concentrations reported in microgram per liter (µg/l).															
SB-01-GW	7/17/2007	NA	390/420 ⁴ J	<50/<50	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	1.6/1.2	<10/<10	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<0.5/<0.5	<1,000/<1,000
SB-02-GW	7/17/2007	NA	950 J	65	0.59	1.2	<0.5	0.82	69	<10	< 0.5	< 0.5	6.6	< 0.5	< 0.5	<1,000
SB-04-GW	7/17/2007	NA	290 J	<50	< 0.5	< 0.5	<0.5	< 0.5	< 0.5	<10	0.54	< 0.5	< 0.5	< 0.5	< 0.5	<1,000
Environment	al Screening I	Level ⁵	640	500	46	130	290	100	1800	18,000				150	200	50,000

Notes:

1. Grab groundwater samples were collected by Geomatrix Consultants, Inc., of Oakland, California, and analyzed by Curtis & Tompkins, of Berkeley, California for TPHd and TPHg using EPA Method 8015B following silica gel prepartation; and benzene, toluene, ethylbenzene, total xylenes, MTBE, TBA, DIPE, ETBE, TAME, 1,2-DCA, EDB, and ethanol using EPA Method 8260B.

2. <= Analyte not detected above laboratory reporting limit.

3. Environmental Screening Levels (ESLs). San Francisco Bay Regional Water Quality Control Board (Water Board), Interim Final February 2005.

Table B-2. Commercial/Industrial Land Use: Fianl ESL, Shallow Soil (equal or less than 3 meters bgs), groundwater IS NOT a current or potential drinking water resource (mg/kg).

4. / = Indicates blind duplicate sample collected from boring. Blind duplicate sample results are shown with the grab groundwater sample results.

5. ESLs. Water Board, Interim Final February 2005.

Table F-1b. Groundwater Screening Levels: Final Groundwater Screening Level, groundwater IS NOT a current or potential drinking water resource (µg/l).

6. Bolded values are detections greater than the environmental screening level.

Abbreviations:

"" = No screening level published	MTBE = methyl tert-butyl ether
1,2-DCA = $1,2$ -dichloroethane	NA = Not Applicable
bgs = below ground surface	TAME = tert-amyl methyl ether
DIPE = di-isopropyl ether	TBA = tert-butyl alcohol
EDB = 1,2-dibromoethane	TPHd = total petroleum hydrocarbons quantified as diesel
ETBE = ethyl tert-butyl ether	TPHg = total petroleum hydrocarbons quantified as gasoline

Data Flags:

J = The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

I:\Doc_Safe\12000s\12924\3000 REPORT\UST Investigation\2 Tbl\Table 1 results



FIGURES











ATTACHMENT 1 Lithologic Logs

PROJE	ECT:	WA1 Eme	FERGATE T eryville, Calif	OWERS ornia	Log of	f Boring No. SB	8-01
BORIN	G LOO	CATIO	N: 5' south	of former UST area	ELEVATION AND D	ATUM: atum is ground surfa	ce
DRILLI	NG CO	ONTR/	ACTOR: Pre	cision Sampling, Inc.	DATE STARTED: 7/17/07	DATE FINISHE 7/17/07	ED:
DRILLI	NG MI	ETHO	D: Direct	push	TOTAL DEPTH (ft.): 18.0	MEASURING F	POINT: face
DRILLI	NG EC	QUIPM	IENT: Geopr	obe 7720 DT	DEPTH TO WATER	(ft.) FIRST	COMPL.
SAMPL		1ETHC	DD: Enviro-c	pre sampling system [4' x 1.5"]	LOGGED BY: P. Jorgensen/T.	Klitzke	
НАММ	ER WI	EIGHT	NA	DROP: NA	RESPONSIBLE PRO	DFESSIONAL:	REG. NO. PG 7806
DEPTH (feet)	Sample No.	Sample and M	Poot CVM READING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. de cementation, react. w/HCl, geo. int	ensity, structure, ter.	REMA	ARKS
				POORLY GRADED SAND with CLAY(SP-SC):	olive brown (2.5Y		
	-			4/3), moist, 90% fine to medium sand, 10% nor	nplastic fines	 OVM = Thermo Environmental 580B PID calib 100 ppm isobu standard. 	o Instruments rated with tylene
3- - 4- 5-	-			 time to medium sand, 10% line to coarse g fines brick debris 	ravei, 10% nonplastic	 Hand augered bgs. - - 	to 3 feet
	SB-01-7		24	POORLY GRADED SAND(SP): dark gray (2.5 to medium sand, 5% fines LEAN CLAY with SAND(CL): dark greenish gr 75% fines, 25% fine to medium sand, medium	5YR 4/1), wet, 95% fine ay (10GY 4/1), moist, plasticity, firm		
9- 9- 10- -			1.4	CLAYEY SAND with GRAVEL(SC): dark gray to coarse sand, 25% low plasticity fines, 15% fir [FILL]	(N 4/), moist, 60% fine he gravel, wood debris		
11- - 12- - 13- - 14- -	SB-01-15		0.2	↓ rubber debris CLAYEY SAND(SC): black (N 2.5/), wet, 75% 25% low plasticity fines, abundant wood debris	fine to coarse sand, [FILL]	Grab groundwa SB-01-GW col through 5 feet of Sch. 40 PVC s (0.010-inch slo placed in boreh to 18 feet bgs. casing retracte bottom of borin bgs to maintair seal.	ater sample llected of 1-inch OD screen t size) hole from 13 Drive ed from ng to 13 feet n surface
15-					1		OAKBOREV (REV. 3/00)
			📶 🗠 Ge	omatrix	Project No	o. 12924.000 Pag	ge 1 of 2

PROJECT: WATERGATE TO Emeryville, Califo	OWERS ornia	Log of Boring No. SB-01 (cont'd)						
DEPTH (feet) Sample No. Blows/ Foot CVM READING (ppm)	DESCR NAME (USCS): color, moist, % cementation, react	IPTION by wt., plast. density, structu . w/HCl, geo. inter.	ure,	REMARKS				
	CLAYEY SAND(SC): cont'd		-					
			-					
	Bottom of boring at 18.0 feet			Borehole destroyed using Type I-II neat cement grout				
19-			-	ground surface with a tremie pipe.				
			-					
22-			_					
23-			-					
24-			_					
25-			_					
26-			-					
27-			-					
20-			_					
30-			-					
31-			-					
32-			-					
33								
Cec	omatrix		Project No. 12924	000 Page 2 of 2				

PROJEC	T:	WATE Emer	ERGATE T yville, Calif	OWERS	Log of Bo	oring No.	SB-02
BORING	LOC	ATION	5' west	former UST area	ELEVATION AND DATUM	: Lie ground e	urface
	6.00			cision Sampling Inc	DATE STARTED:	DATE FIN	IISHED:
					7/17/07	7/17/07	ING POINT [.]
DRILLIN	g me	THOD	Direct	push	19.0	Ground	surface
DRILLIN	G EC	UIPME	NT: Geopr	obe 7720 DT	DEPTH TO WATER (ft.)	FIRST 13.5	COMPL.
SAMPLI	NG M	ETHO	D: Enviro-c	ore sampling system [4' x 1.5"]	LOGGED BY: P. Jorgensen/T. Klitz	ke	
HAMME	r we	IGHT:	NA	DROP: NA	RESPONSIBLE PROFESS	Sional:	REG. NO. PG 7806
DEPTH (feet)	No.	ample 31d	Foot OVM tEADING (ppm)	DESCRIPTION NAME (USCS): color, moist, % by wt., plast. de cementation, react. w/HCl, geo. inte	nsity, structure, er.		REMARKS
· · · ·	S	<u>о</u> п	<u>۲</u>	Surface Elevation: Not s	surveyed		
				medium sand, 30% medium plasticity fines	3), moist, 70% fine to		
				 ↓ dark gray (N 4/) ↓ 70% fine to medium sand, 20% meidum plasticit gravel wood debris, plastic debris, tar shingles 	ty fines, 10% fine	OVM = Th Environma 580B PID 100 ppm i standard. - Hand aug - hos	ermo ental Instruments calibrated with sobutylene ered to 4 feet
	SB-02-7		0.2	gravel, wood debris, plastic debris, tar shingles	[FILL]	- bgs. 	
	SB-02-14			 Very dark gray (N 3/), 60% fine to medium sand plasticity fines, 10% fine to coarse gravel, brick of plasticity fines, 10% fine to coarse gravel, brick of plasticity fines, 10% fine to coarse gravel, 25% fine to fines 	greenish gray (10Y coarse sand, 5%	 Grab grou SB-02-GV through 5 Sch. 40 P (0.010-inc placed in l to 19 feet casing ret bottom of bgs to ma seal. 	Indwater sample V collected feet of 1-inch OD VC screen h slot size) porehole from 14 bgs. Drive racted from boring to 14 feet intain surface
		<u> </u>		·	_	· ·	OAKBOREV (REV. 3/00)
			Ce Ge	omatrix	Project No. 1292	24.000	Page 1 of 2

PROJECT: V E	VATEF Emeryv	RGATE T ville, Califo	OWERS ornia	Log of Boring No. SB-02 (cont'd)						
DEPTH DEPTH (feet) Sample No.	Sample Sample Foot Foot	OVM READING (ppm)	DESCR NAME (USCS): color, moist, % cementation, react	IPTION by wt., plast. density, struc . w/HCl, geo. inter.	ture,	REMARKS				
16-			POORLY GRADED GRAVEL with	SAND(GP): cont'd	-					
17-	$\langle $				-					
18-	\bigwedge				-					
20-			Bottom of boring at 19.0 feet		-	Borehole destroyed using Type I-II neat cement grout placed from total depth to ground surface with a tremie pipe.				
21-					-					
22-					-					
 24					-					
25- - 26-					-					
27-					-					
28-					-					
30-					-					
31-					-					
32-					_					
		// Ge	omatrix		Project No. 12924	.000 Page 2 of 2				

PROJECT: W	PROJECT: WATERGATE TOWERS Emeryville, California							Log of Boring No. SB-04						
BORING LOCA	TION: F	uel disp	benser a	area				ELEVATI Not sur	ON AND DA	TUM: tum is	s grou	nd s	urface	
DRILLING CON	ITRACTO	R: Prec	cision Sa	ampling, I	nc.			DATE ST 7/17/07	ARTED:		DAT 7/1	E FIN 7/07	ISHED:	
DRILLING MET	HOD:	Direct	push					TOTAL D 16.0	EPTH (ft.):		MEA Gro	SUR	NG POINT: surface	
DRILLING EQU	JIPMENT:	Geopro	obe 7720	DT (DEPTH T	O WATER (ft.) 1	IRST 2.0		COMPL. NA	
SAMPLING ME	THOD: E	Enviro-co	ore sampl	ling system	n [4' x 1.5"]		LOGGED	BY: ensen/T. I	Klitzk	e		550.00	
HAMMER WEIG	GHT: N	NA		DROP:	NA			P. Jorg	ensen	-ESSIC	JNAL:		REG. NO. PG 7806	
DEPTH (feet) No. No.	ample Blows/ Salovs/ S	UVM READING (ppm)	1	NAME (USC	CS): color, r cementatio	DESCRIPTIC moist, % by w on, react. w/H	DN t., plast. densi Cl, geo. inter.	ity, structur	re,			F	REMARKS	
		ш.	450			ace Elevation: E: (3 inches f	Not sur	veyed						
- 1- - 2- - 3- 4- 5- 9- 6- 8- 9- 10- 11- 12- 9- 10- 11- 12- 9- 10- 11- 12- 9- 13- 13- 13- 13- 13- 13- 13- 13		0.2 0.2	↓ LEA fine trac ↓ bric ↓ dark ↓ dark	AN CLAY(C a to medium a to medium a coarse gr a coars	EL): greeni sand, med sand, med gravel gray (5GY EAN CLAY rse gravel, D(SC): bla city fines	4/1) 4/1) 4/2): very d 5% fine to n	Y 2.5/1), moi ty, firm lark gray (N anedium sand, wet, 65% fine	ist, 90% fi 3/), moist, , low to mo e to mediu	nes, 10%		Grab SB-C throu Sch. (0.01	a grou dard. dauge grou dard. dauge dard. dauge	ermo ental Instruments calibrated with sobutylene ered to 3 feet ered to 3 feet v collected feet of 1-inch OD VC screen h slot size) porehole from 11 bgs. Drive acted from boring to 11 feet	
											seal.	a		
15														
		🚈 Ge	omatrix	x					Project No.	12924	.000		Page 1 of 2	
		-											•	

PROJE	OJECT: WATERGATE TOWERS Emeryville, California						Log of Boring No. SB-04 (cont'd)						
DEPTH (feet)	Sample No.	Sample	Blows/ 55 Foot	OVM READING (ppm)		DESCR NAME (USCS): color, moist, % cementation, react	IPTION by wt., plast. density, struc w/HCl, geo. inter.	ture,		REMARKS			
		\bigvee		0.2	▼	wood debris, plastic debris		-	_				
16-						Bottom of boring at 16.0 feet			-	Borehole destroyed using			
17-								-	_	lype I-II neat cement grout placed from total depth to ground surface with a			
-								-	-	tremie pipe.			
18-								-	_				
19-								-	-				
20-								-	_				
21								-	_				
								-	_				
22-								-	_				
23-								-	_				
21-								-	_				
-								-	_				
25-								-	_				
26-								-	_				
27-								-	_				
_								-	-				
28-								-	_				
29-								-	-				
30-								-	_				
								-	-				
								-	_				
32-								-	_				
33-										OAKBOREV (REV. 3/00)			
				// 🔁 Ge	om	atrix		Project No. 12924	4.0	Page 2 of 2			



ATTACHMENT 2 Analytical Laboratory Report



Geomatrix Consultants	Project	:	STANDARD
2101 Webster Street	Location	:	Watergate Towers
Oakland, CA 94612	Level	:	II

<u>Sample ID</u>	<u>Lab ID</u>
SB-01-7	196096-001
SB-01-15	196096-002
ТВ-071707	196096-003
SB-01-GW	196096-004
SB-02-7	196096-005
SB-11-GW	196096-006
SB-02-14	196096-007
SB-02-GW	196096-008
EB-GW-071707	196096-009
EB-SB-071707	196096-010
SB-04-06	196096-011
SB-04-12.5	196096-012
SB-04-GW	196096-013

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 signatures. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis.

Signature: Project Manager

Signature:

Operations Manager

Date: <u>07/26/2007</u>

Date: 07/26/2007

NELAP # 01107CA

Page 1 of ____



CASE NARRATIVE

Laboratory number: Client: Location: Request Date: Samples Received: 196096 Geomatrix Consultants Watergate Towers 07/19/07 07/19/07

This hardcopy data package contains sample and QC results for seven water samples and three soil samples, requested for the above referenced project on 07/19/07. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Water:

No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B) Soil:

Matrix spikes were not reported for batch 127443 because the parent sample required a dilution that would have diluted out the spikes. No analytical problems were encountered.

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

SB-02-GW (lab # 196096-008) and SB-04-GW (lab # 196096-013) had pH greater than 2, however the samples were analyzed within 7 days. No other analytical problems were encountered.

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

No analytical problems were encountered.



		Total	Volatil	e Hydrocarl	bons	
Lab #: Client: Project#:	196096 Geomatrix Cor STANDARD	nsultant	S	Location: Prep: Analysis:	Watergate Towers EPA 5030B EPA 8015B	
Matrıx: Units: Basis: Diln Fac:	Soll mg/Kg as received 1.000			Batch#: Sampled: Received: Analyzed:	127471 07/17/07 07/19/07 07/20/07	
Field ID.	CD 01 7			Ich ID.	106006 001	
Type:	SAMPLE				190090-001	
	Analyte		Result		RL	
Gasoline C	7-C12	NI)		0.93	
	Surrogate	%REC	Limits			
Trifluoroto	oluene (FID)	108	70-132			
Bromofluor	obenzene (FID)	107	66-138			
				I - h ID.	100000 005	
Type:	SB-UZ-7 SAMPLE			Lab ID.	196096-005	
TYPC						
	Analyte		Result		RL	
Gasoline C	7-C12	NI)		0.93	
	Surrogate	%REC	Limits			
Trifluoroto	oluene (FID)	103	70-132			
Bromofluor	obenzene (FID)	102	66-138			
					100000 011	
Field ID: Type:	SB-04-06 Samdi.F			Lab ID:	196096-011	
TYPC						
	Analyte		Result		RL	
Gasoline C	7-C12	NI)		0.94	
9	Surrogate	%REC	Limits			
Trifluoroto	oluene (FID)	105	70-132			
Bromofluor	obenzene (FID)	104	66-138			
Type:	BLANK			Lab ID:	QC397230	
	Analyte		Result		RL	
Gasoline C	Analyte 7-C12	NI	Result		RL 1.0	
Gasoline C	Analyte 7-C12	NI %RFC	Result		RL 1.0	
Gasoline C	Analyte 7-C12 Surrogate oluene (FID)	NI %REC 103	Result D Limits 70-132		RL 1.0	



Total Volatile Hydrocarbons							
Lab #:	196096	Location:	Watergate Towers				
Client:	Geomatrix Consultants	Prep:	EPA 5030B				
Project#:	STANDARD	Analysis:	EPA 8015B				
Туре:	LCS	Basis:	as received				
Lab ID:	QC397231	Diln Fac:	1.000				
Matrix:	Soil	Batch#:	127471				
Units:	mg/Kg	Analyzed:	07/20/07				

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	10.00	10.67	107	80-120

Surrogate	%REC	Limits	
Trifluorotoluene (FID)	113	70-132	
Bromofluorobenzene (FID)	112	66-138	



Total Volatile Hydrocarbons								
Lab #:	196096	Location:	Watergate Towers					
Client:	Geomatrix Consultants	Prep:	EPA 5030B					
Project#:	STANDARD	Analysis:	EPA 8015B					
Field ID:	SB-04-06	Diln Fac:	1.000					
MSS Lab ID:	196096-011	Batch#:	127471					
Matrix:	Soil	Sampled:	07/17/07					
Units:	mg/Kg	Received:	07/19/07					
Basis:	as received	Analyzed:	07/20/07					

Type:	MS			Lab ID:	Q	C397232			
	Analyte	MSS Re	sult	Spike	ed	Result	%REC	Lin	nits
Gasoline	e C7-C12		0.1769	9.	524	7.741	79	36-	-120
	Surrogate	%REC	Limits						
Trifluor	cotoluene (FID)	114	70-132						
Bromoflu	lorobenzene (FID)	117	66-138						
Type:	MSD			Lab ID:	Q	C397233			
	Analyte		Spiked		Result	%REC	Limits	RPD	Lim
Gasoline	e C7-C12		9.61	5	7.45	5 76	36-120	5	29
	Surrogate	%REC	Limits						
Trifluor	cotoluene (FID)	114	70-132						

66-138

116

Bromofluorobenzene (FID)



		Total H	Extracta	ble Hydrocarbo	ns
Lab #: Client: Project#:	196096 Geomatrix Co STANDARD	onsultant	S	Location: Prep: Analysis:	Watergate Towers EPA 3520C EPA 8015B
Matrix: Units: Diln Fac: Batch#:	Water ug/L 1.000 127482			Sampled: Received: Prepared:	07/17/07 07/19/07 07/21/07
Field ID: Type: Lab ID:	SB-01-GW SAMPLE 196096-004			Analyzed: Cleanup Method:	07/24/07 EPA 3630C
Anal	yte		Result	RL	
Diesel Cl0-C24			390 H Y	50	
Surro	gate	%REC	Limits		
Hexacosane Field ID:	SB-11-GW	93	61-134	Analyzed:	07/24/07
Lab ID:	196096-006		Pogult		LPA 3030C
Diesel C10-C24	yte		420 H Y	50	
Surro	gate	%REC	Limits		
Hexacosane		91	61-134		
Field ID: Type: Lab ID:	SB-02-GW SAMPLE 196096-008			Analyzed: Cleanup Method:	07/24/07 EPA 3630C
Anal	yte		Result	RL	
Diesei Ciu-C24			950 H I	Δ 50	
Surro	gate	%REC	Limits		
liexacoballe			01 134		
Field ID: Type: Lab ID:	EB-GW-071707 SAMPLE 196096-009			Analyzed: Cleanup Method:	07/23/07 EPA 3630C
Anal Diesel C10-C24	yte	NE	Result	R L 50	
210001 010 021		0		50	
Hexacosane	gate	%REC 101	61-134		

H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard Z= Sample exhibits unknown single peak or peaks ND= Not Detected RL= Reporting Limit

Page 1 of 2



		Total E	lxtracta	ble Hydrocarbo	ns
Lab #: Client: Project#:	196096 Geomatrix Co STANDARD	onsultant	S	Location: Prep: Analysis:	Watergate Towers EPA 3520C EPA 8015B
Matrix: Units: Diln Fac: Batch#:	Water ug/L 1.000 127482			Sampled: Received: Prepared:	07/17/07 07/19/07 07/21/07
Field ID: Type: Lab ID:	EB-SB-071707 SAMPLE 196096-010			Analyzed: Cleanup Method:	07/23/07 EPA 3630C
Anal Diesel C10-C24	yte	ND	Result	<u>RL</u> 50	
Curro		%DEC	Timita		
Hexacosane	gale	104	61-134		
Field ID: Type: Lab ID:	SB-04-GW SAMPLE 196096-013			Analyzed: Cleanup Method:	07/23/07 EPA 3630C
Anal	yte		Result	RL	
Surro Hexacosane	gate	%REC 105	Limits 61-134		
Type: Lab ID:	BLANK QC397291			Analyzed: Cleanup Method:	07/22/07 EPA 3630C
Anal	yte		Result	<u>RL</u>	
DIESEI CIU-CZ4		IND		50	
Hevacosane	gate	%REC	Limits		
IICAACUBAIIC		T 0 0	0T T0F		

H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard Z= Sample exhibits unknown single peak or peaks ND= Not Detected RL= Reporting Limit Page 2 of 2



Total Extractable Hydrocarbons							
Lab #:	196096	Location:	Watergate Towers				
Client:	Geomatrix Consultants	Prep:	EPA 3520C				
Project#:	STANDARD	Analysis:	EPA 8015B				
Туре:	LCS	Diln Fac:	1.000				
Lab ID:	QC397292	Batch#:	127482				
Matrix:	Water	Prepared:	07/21/07				
Units:	ug/L	Analyzed:	07/22/07				

Cleanup Method: EPA 3630C

Analyte		Spiked	Result	%REC	Limits
Diesel C10-C24	2,500		2,192	88	58-130
Surrogate	%REC	Limits			
Hexacosane	98	61-134			



	Total Extr	actable Hydrocark	oons	
Lab #:	196096	Location:	Watergate Towe	ers
Client:	Geomatrix Consultants	Prep:	EPA 3520C	
Project#:	STANDARD	Analysis:	EPA 8015B	
Field ID:	ZZZZZZZZZZ	Batch#:	127482	
MSS Lab ID:	196040-002	Sampled:	07/17/07	
Matrix:	Water	Received:	07/17/07	
Units:	ug/L	Prepared:	07/21/07	
Diln Fac:	1.000	Analyzed:	07/23/07	
Туре:	MS	Lab ID:	QC397293	
Anal	vte MSS Result	Spiked	Result	%REC Limits

		• • • • •			
Diesel C10-C24	<15.44	2,500	2,261	90 5	7-134
Surrogate	%REC Limits				
Hexacosane	95 61-134				

Type:	MSD			Lab ID:		QC397294			
i	Analyte		Spiked		Result	%REC	Limits	RPD	Lim
Diesel C10-0	C24		2,500		2,318	93	57-134	3	32
St	urrogate	%REC	Limits						
Hexacosane		95	61-134						



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\\Lims\gdrive\ezchrom\Projects\GC14B\Data\203b078, B



\Lims\gdrive\ezchrom\Projects\GC14B\Data\203b079, B



\Lims\gdrive\ezchrom\Projects\GC15B\Data\203b030, B



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		Total H	Extracta	ble Hydrocarbo	ns
Lab #: Client: Project#:	196096 Geomatrix Cc STANDARD	nsultant	S	Location: Analysis:	Watergate Towers EPA 8015B
Matrix: Units: Basis:	Soil mg/Kg as received			Sampled: Received:	07/17/07 07/19/07
Field ID: Type: Lab ID: Diln Fac:	SB-01-7 SAMPLE 196096-001 1.000			Batch#: Prepared: Analyzed: Prep:	127735 07/27/07 07/30/07 SHAKER TABLE
۵na	wto		Pagult	DT.	
Diesel C10-C24	Ly Le		6.5 H	НΥ 0.	99
Surre	ogate	%₽₽ሮ	T.imite		
Hexacosane	yau r	78	40-127		
Field ID: Type: Lab ID: Diln Fac: Batch#:	SB-02-7 SAMPLE 196096-005 10.00 127443			Prepared: Analyzed: Prep: Cleanup Method:	07/20/07 07/20/07 EPA 3550B EPA 3630C
Anal	lyte		Result	RL	
Diesel Cl0-C24			80 H Y	10	
Surro	ogate	%REC	Limits		
Hexacosane		DO	40-12/		
Field ID: Type: Lab ID: Diln Fac: Batch#:	SB-04-06 SAMPLE 196096-011 10.00 127443			Prepared: Analyzed: Prep: Cleanup Method:	07/20/07 07/20/07 EPA 3550B EPA 3630C
Ana	lvte		Result	RL	
Diesel C10-C24	-		120 H Y	10	
Surro	ogate	%REC	Limits		
Hexacosane	-	DO	40-127		
Type: Lab ID: Diln Fac: Batch#:	BLANK QC397111 1.000 127443			Prepared: Analyzed: Prep: Cleanup Method:	07/20/07 07/20/07 EPA 3550B EPA 3630C
	lyte		Result	RL	
Diesel Cl0-C24		ND		1.	0
Surro Hexacosane	ogate	%REC 58	Limits 40-127		

H= Heavier hydrocarbons contributed to the quantitation Y= Sample exhibits chromatographic pattern which does not resemble standard

DO= Diluted Out ND= Not Detected RL= Reporting Limit

Page 1 of 2



		Total Ext	ractable Hydroca	arbons	
Lab #: Client:	196096 Geomatrix Con	nsultants	Location: Analysis:	Watergate Tower: EPA 8015B	5
Project#: Matrix: Units: Basis:	STANDARD Soil mg/Kg as received		Sampled: Received:	07/17/07 07/19/07	
Type: Lab ID: Diln Fac: Batch#:	BLANK QC398480 1.000 127735		Prepared: Analyzed: Prep:	07/27/07 07/29/07 SHAKER TABLE	
Ana	lyte	Rea	sult	RL	
Diesel Cl0-C24		ND		1.0	
Surr	ogate	%REC L	imits		
Hexacosane		77 40	0-127		



Total Extractable Hydrocarbons				
Lab #:	196096	Location:	Watergate Towers	
Client:	Geomatrix Consultants	Prep:	EPA 3550B	
Project#:	STANDARD	Analysis:	EPA 8015B	
Туре:	LCS	Diln Fac:	1.000	
Lab ID:	QC397112	Batch#:	127443	
Matrix:	Soil	Prepared:	07/20/07	
Units:	mg/Kg	Analyzed:	07/20/07	
Basis:	as received			

Cleanup Method: EPA 3630C

Analyte		Spiked	Result	%REC	Limits
Diesel C10-C24		49.75	34.71	70	58-127
Surrogate	%REC	Limits			
Hexacosane	71	40-127			



Total Extractable Hydrocarbons				
Lab #:	196096	Location:	Watergate Towers	
Client:	Geomatrix Consultants	Prep:	SHAKER TABLE	
Project#:	STANDARD	Analysis:	EPA 8015B	
Туре:	LCS	Diln Fac:	1.000	
Lab ID:	QC398481	Batch#:	127735	
Matrix:	Soil	Prepared:	07/27/07	
Units:	mg/Kg	Analyzed:	07/30/07	
Basis:	as received			

Cleanup Method: EPA 3630C

Analyte		Spiked	Result	%REC	Limits
Diesel C10-C24		49.95	45.95	92	58-127
Surrogate	%REC	Limits			
Hexacosane	94	40-127			



		Total I	Extracta	ble Hydrocarbo	ns		
Lab #:	196096			Location:	Watergate To	wers	
Client:	Geomatrix Co	nsultant	S	Prep:	SHAKER TABLE	1	
Project#:	STANDARD			Analysis:	EPA 8015B		
Field ID:	ZZZZZZZZZZ			Batch#:	127735		
MSS Lab ID:	196289-001			Sampled:	07/27/07		
Matrix:	Soil			Received:	07/27/07		
Units:	mg/Kg			Prepared:	07/27/07		
Basis:	as received			Analyzed:	07/30/07		
Diln Fac:	5.000						
Type: Lab ID:	MS QC398482			Cleanup Method:	EPA 3630C	0.555	
Analy	te	MSS Res	ult	Spiked	Result	%REC	Limits
Diesel C10-C24		29	.21	49.94	63.98	70	29-147
Surr	ogate	%REC	Limits				
Hexacosane Type:	MSD	92	40-127	Cleanup Method:	EPA 3630C		
Lab ID:	QC398483						
Ana	lyte		Spiked	Result	%REC	Limits	RPD Lim
Diesel C10-C24			49.98	74.	22 90	29-147	15 46
Surr	ogate	%REC	Limits				
Hexacosane		96	40-127				



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\\Lims\gdrive\ezchrom\Projects\GC14B\Data\201b027, B



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\\Lims\gdrive\ezchrom\Projects\GC15B\Data\210b004, B



Gasoline by GC/MS Lab #: 196096 Location: Watergate Towers Client: Geomatrix Consultants Prep: EPA 5030B Project#: STANDARD Analysis: EPA 8260B Field ID: TB-071707 127450 Batch#: Lab ID: 196096-003 Sampled: 07/17/07 Matrix: Received: 07/19/07 Water Units: Analyzed: 07/20/07 ug/L 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	
Ethanol	ND	1,000	
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	92	80-123	
1,2-Dichloroethane-d4	97	79-134	
Toluene-d8	97	80-120	
Bromofluorobenzene	107	80-122	

ND= Not Detected RL= Reporting Limit Page 1 of 1



Lab #:	196096	Location:	Watergate Towers
Client:	Geomatrix Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	SB-01-GW	Batch#:	127450
Lab ID:	196096-004	Sampled:	07/17/07
Matrix:	Water	Received:	07/19/07
Units:	ug/L	Analyzed:	07/20/07
Diln Fac:	1.000		

	50
	50
	10
	0.50
	0.50
	0.50
:	1,000
1.6	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	0.50
	1.6

Surrogate	%REC	Limits	
Dibromofluoromethane	94	80-123	
1,2-Dichloroethane-d4	99	79-134	
Toluene-d8	98	80-120	
Bromofluorobenzene	100	80-122	



Lab #:	196096	Location:	Watergate Towers
Client:	Geomatrix Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	SB-11-GW	Batch#:	127450
Lab ID:	196096-006	Sampled:	07/17/07
Matrix:	Water	Received:	07/19/07
Units:	ug/L	Analyzed:	07/20/07
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	
Ethanol	ND	1,000	
MTBE	1.2	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	94	80-123	
1,2-Dichloroethane-d4	100	79-134	
Toluene-d8	98	80-120	
Bromofluorobenzene	100	80-122	



Lab #:	196096	Location:	Watergate Towers
Client:	Geomatrix Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	SB-02-GW	Batch#:	127450
Lab ID:	196096-008	Sampled:	07/17/07
Matrix:	Water	Received:	07/19/07
Units:	ug/L	Analyzed:	07/20/07
Diln Fac:	1.000		

Analyte	Result	RL	
Gasoline C7-C12	65 Y	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)	6.6	0.50	
Ethanol	ND	1,000	
MTBE	69	0.50	
1,2-Dichloroethane	ND	0.50	
Benzene	0.59	0.50	
Toluene	1.2	0.50	
1,2-Dibromoethane	ND	0.50	
Ethylbenzene	ND	0.50	
m,p-Xylenes	0.67	0.50	
o-Xylene	0.82	0.50	

Surrogate	%REC	Limits	
Dibromofluoromethane	95	80-123	
1,2-Dichloroethane-d4	101	79-134	
Toluene-d8	101	80-120	
Bromofluorobenzene	101	80-122	



Gasoline by GC/MS Lab #: 196096 Location: Watergate Towers Client: Geomatrix Consultants Prep: EPA 5030B Project#: STANDARD Analysis: EPA 8260B EB-GW-071707 Field ID: 127450 Batch#: Lab ID: 196096-009 Sampled: 07/17/07 Matrix: Received: 07/19/07 Water Units: Analyzed: 07/20/07 ug/L 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	
Ethanol	ND	1,000	
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	96	80-123	
1,2-Dichloroethane-d4	99	79-134	
Toluene-d8	98	80-120	
Bromofluorobenzene	99	80-122	

ND= Not Detected RL= Reporting Limit Page 1 of 1



Gasoline by GC/MS Lab #: 196096 Location: Watergate Towers Client: Geomatrix Consultants Prep: EPA 5030B Project#: STANDARD Analysis: EPA 8260B EB-SB-071707 Field ID: Batch#: 127450 Lab ID: 196096-010 Sampled: 07/17/07 Matrix: Received: 07/19/07 Water Units: ug/L Analyzed: 07/20/07 1.000 Diln Fac:

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	
Ethanol	ND	1,000	
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	80-123
1,2-Dichloroethane-d4	102	79-134
Toluene-d8	97	80-120
Bromofluorobenzene	100	80-122



Lab #:	196096	Location:	Watergate Towers
Client:	Geomatrix Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	SB-04-GW	Batch#:	127450
Lab ID:	196096-013	Sampled:	07/17/07
Matrix:	Water	Received:	07/19/07
Units:	ug/L	Analyzed:	07/20/07
Diln Fac:	1.000		

Analyte	Result	RL
Gasoline C7-C12	ND	50
tert-Butyl Alcohol (TBA)	ND	10
Isopropyl Ether (DIPE)	0.54	0.50
Ethyl tert-Butyl Ether (ETBE)	ND	0.50
Methyl tert-Amyl Ether (TAME)	ND	0.50
Ethanol	ND	1,000
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	80-123
1,2-Dichloroethane-d4	100	79-134
Toluene-d8	97	80-120
Bromofluorobenzene	103	80-122



Gasoline by GC/MS					
Lab #: Client: Project#:	196096 Geomatrix Consultants STANDARD	Location: Prep: Analysis:	Watergate Towers EPA 5030B EPA 8260B		
Matrix: Units: Diln Fac:	Water ug/L 1.000	Batch#: Analyzed:	127450 07/20/07		

Type: BS		Lab ID: QC	397133	
Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	111.5	89	68-132
Isopropyl Ether (DIPE)	25.00	20.79	83	65-120
Ethyl tert-Butyl Ether (ETBE)	25.00	21.63	87	75-124
Methyl tert-Amyl Ether (TAME)	25.00	26.67	107	77-120
MTBE	25.00	23.05	92	71-120
1,2-Dichloroethane	25.00	25.16	101	79-121
Benzene	25.00	26.46	106	80-120
Toluene	25.00	26.80	107	80-120
1,2-Dibromoethane	25.00	25.08	100	80-120
Ethylbenzene	25.00	28.70	115	80-124
m,p-Xylenes	50.00	59.44	119	80-127
o-Xylene	25.00	28.56	114	80-124
Surrogate	%REC Limits			
Dibromofluoromethane	92 80-123			
1,2-Dichloroethane-d4	98 79-134			
Toluene-d8	99 80-120			
Bromofluorobenzene	98 80-122			

Type: BSD			Lab ID:	QC3	97134			
Analyte		Spiked		Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol (TBA	A)	125.0		105.8	85	68-132	5	20
Isopropyl Ether (DIPE)		25.00		18.51	74	65-120	12	20
Ethyl tert-Butyl Ether	(ETBE)	25.00		19.88	80	75-124	8	20
Methyl tert-Amyl Ether	(TAME)	25.00		23.79	95	77-120	11	20
MTBE		25.00		20.50	82	71-120	12	20
1,2-Dichloroethane		25.00		23.00	92	79-121	9	20
Benzene		25.00		23.45	94	80-120	12	20
Toluene		25.00		24.80	99	80-120	8	20
1,2-Dibromoethane		25.00		23.16	93	80-120	8	20
Ethylbenzene		25.00		25.63	103	80-124	11	20
m,p-Xylenes		50.00		53.25	107	80-127	11	20
o-Xylene		25.00		25.60	102	80-124	11	20
Surrogate	%REC	Limits						
Dibromofluoromethane	91	80-123						
1,2-Dichloroethane-d4	97	79-134						
Toluene-d8	98	80-120						
Bromofluorobenzene	94	80-122						



Gasoline by GC/MS					
Lab #:	196096	Location:	Watergate Towers		
Client:	Geomatrix Consultants	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Туре:	BLANK	Diln Fac:	1.000		
Lab ID:	QC397135	Batch#:	127450		
Matrix:	Water	Analyzed:	07/20/07		
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	
Ethanol	ND	1,000	
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	94	80-123	
1,2-Dichloroethane-d4	97	79-134	
Toluene-d8	98	80-120	
Bromofluorobenzene	106	80-122	



Gasoline by GC/MS					
Lab #:	196096	Location:	Watergate Towers		
Client:	Geomatrix Consultants	Prep:	EPA 5030B		
Project#:	STANDARD	Analysis:	EPA 8260B		
Matrix:	Water	Batch#:	127450		
Units:	ug/L	Analyzed:	07/20/07		
Diln Fac:	1.000				

Type:

Toluene-d8

Bromofluorobenzene

BS

Lab ID:

QC397190

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1,000	982.8	98	80-121

Surrogate	%REC	Limits
Dibromofluoromethane	91	80-123
1,2-Dichloroethane-d4	100	79-134
Toluene-d8	103	80-120
Bromofluorobenzene	97	80-122

Type:	BSD			Lab ID:	QC39	97191			
	Analyte		Spiked		Result	%REC	Limits	RPD	Lim
Gasoline (C7-C12		1,000		957.8	96	80-121	3	20
	Surrogate	%REC	Limits						
Dibromofl	uoromethane	92	80-123						
1.2-Dichle	oroethane-d4	98	79-134						

80-120

80-122

100

99

Data File: \\Gcmsserver\DD\chem\MSVOA06.i\072007.b\FGK17TVH.D Date : 20-JUL-2007 18:04 Client ID: DYNA P&T Sample Info: S,196096-008

Column phase:

Instrument: MSVOA06.i

Operator: VOC

Column diameter: 2.00



Data File: \\Gcmsserver\DD\chem\MSVOA06.i\072007.b\FGK10TVH.D Date : 20-JUL-2007 14:03 Client ID: DYNA P&T Instrument: MSVOA06.i Sample Info: BS,QC397190

Operator: VOC Column diameter: 2.00





BTXE & Oxygenates

Lab #:	196096	Location:	Watergate Towers	
Client:	Geomatrix Consultants	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Field ID:	SB-01-7	Diln Fac:	0.9615	
Lab ID:	196096-001	Batch#:	127494	
Matrix:	Soil	Sampled:	07/17/07	
Units:	ug/Kg	Received:	07/19/07	
Basis:	as received	Analyzed:	07/23/07	

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	96	
MTBE	ND	4.8	
Isopropyl Ether (DIPE)	ND	4.8	
Ethyl tert-Butyl Ether (ETBE)	ND	4.8	
1,2-Dichloroethane	ND	4.8	
Benzene	ND	4.8	
Methyl tert-Amyl Ether (TAME)	ND	4.8	
Ethanol	ND	960	
Toluene	ND	4.8	
1,2-Dibromoethane	ND	4.8	
Ethylbenzene	ND	4.8	
m,p-Xylenes	ND	4.8	
o-Xylene	ND	4.8	

Surrogate	%REC	Limits
Dibromofluoromethane	97	78-126
1,2-Dichloroethane-d4	97	76-135
Toluene-d8	98	80-120
Bromofluorobenzene	95	80-126



BTXE & Oxygenates

Lab #:	196096	Location:	Watergate Towers
Client:	Geomatrix Consultants	Prep:	EPA 5030B
Project#:	STANDARD	Analysis:	EPA 8260B
Field ID:	SB-02-7	Diln Fac:	0.9434
Lab ID:	196096-005	Batch#:	127494
Matrix:	Soil	Sampled:	07/17/07
Units:	ug/Kg	Received:	07/19/07
Basis:	as received	Analyzed:	07/23/07

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	94	
MTBE	ND	4.7	
Isopropyl Ether (DIPE)	ND	4.7	
Ethyl tert-Butyl Ether (ETBE)	ND	4.7	
1,2-Dichloroethane	ND	4.7	
Benzene	ND	4.7	
Methyl tert-Amyl Ether (TAME)	ND	4.7	
Ethanol	ND	940	
Toluene	ND	4.7	
1,2-Dibromoethane	ND	4.7	
Ethylbenzene	ND	4.7	
m,p-Xylenes	ND	4.7	
o-Xylene	ND	4.7	

Surrogate	%REC	Limits
Dibromofluoromethane	97	78-126
1,2-Dichloroethane-d4	101	76-135
Toluene-d8	98	80-120
Bromofluorobenzene	96	80-126



BTXE & Oxygenates

Lab #:	196096	Location:	Watergate Towers	
Client:	Geomatrix Consultants	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Field ID:	SB-04-06	Diln Fac:	0.9804	
Lab ID:	196096-011	Batch#:	127494	
Matrix:	Soil	Sampled:	07/17/07	
Units:	ug/Kg	Received:	07/19/07	
Basis:	as received	Analyzed:	07/23/07	

Analyte	Result	RL
tert-Butyl Alcohol (TBA)	ND	98
MTBE	ND	4.9
Isopropyl Ether (DIPE)	ND	4.9
Ethyl tert-Butyl Ether (ETBE)	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Methyl tert-Amyl Ether (TAME)	ND	4.9
Ethanol	ND	980
Toluene	ND	4.9
1,2-Dibromoethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	102	78-126
1,2-Dichloroethane-d4	101	76-135
Toluene-d8	99	80-120
Bromofluorobenzene	110	80-126



BTXE & Oxygenates				
Lab #:	196096	Location:	Watergate Towers	
Client:	Geomatrix Consultants	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Туре:	LCS	Basis:	as received	
Lab ID:	QC397378	Diln Fac:	1.000	
Matrix:	Soil	Batch#:	127494	
Units:	ug/Kg	Analyzed:	07/23/07	

Analyte	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)	125.0	125.2	100	56-130
MTBE	25.00	23.94	96	66-120
Isopropyl Ether (DIPE)	25.00	22.73	91	57-120
Ethyl tert-Butyl Ether (ETBE)	25.00	21.67	87	68-120
1,2-Dichloroethane	25.00	25.72	103	73-120
Benzene	25.00	25.43	102	80-120
Methyl tert-Amyl Ether (TAME)	25.00	25.40	102	73-120
Toluene	25.00	25.49	102	80-120
1,2-Dibromoethane	25.00	25.09	100	80-120
Ethylbenzene	25.00	26.99	108	80-125
m,p-Xylenes	50.00	52.22	104	80-123
o-Xylene	25.00	26.38	106	80-122

Surrogate	%REC	Limits	
Dibromofluoromethane	101	78-126	
1,2-Dichloroethane-d4	106	76-135	
Toluene-d8	100	80-120	
Bromofluorobenzene	98	80-126	



BTXE & Oxygenates				
Lab #:	196096	Location:	Watergate Towers	
Client:	Geomatrix Consultants	Prep:	EPA 5030B	
Project#:	STANDARD	Analysis:	EPA 8260B	
Туре:	BLANK	Basis:	as received	
Lab ID:	QC397379	Diln Fac:	1.000	
Matrix:	Soil	Batch#:	127494	
Units:	ug/Kg	Analyzed:	07/23/07	

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	100	
MTBE	ND	5.0	
Isopropyl Ether (DIPE)	ND	5.0	
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Methyl tert-Amyl Ether (TAME)	ND	5.0	
Ethanol	ND	1,000	
Toluene	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	

Surrogate	%REC	Limits	
Dibromofluoromethane	104	78-126	
1,2-Dichloroethane-d4	107	76-135	
Toluene-d8	98	80-120	
Bromofluorobenzene	100	80-126	



BTXE & Oxygenates						
Lab #:	196096	Location:	Watergate Towers			
Client:	Geomatrix Consultants	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Туре:	BLANK	Basis:	as received			
Lab ID:	QC397380	Diln Fac:	1.000			
Matrix:	Soil	Batch#:	127494			
Units:	ug/Kg	Analyzed:	07/23/07			

Analyte	Result	RL	
tert-Butyl Alcohol (TBA)	ND	100	
MTBE	ND	5.0	
Isopropyl Ether (DIPE)	ND	5.0	
Ethyl tert-Butyl Ether (ETBE)	ND	5.0	
1,2-Dichloroethane	ND	5.0	
Benzene	ND	5.0	
Methyl tert-Amyl Ether (TAME)	ND	5.0	
Ethanol	ND	1,000	
Toluene	ND	5.0	
1,2-Dibromoethane	ND	5.0	
Ethylbenzene	ND	5.0	
m,p-Xylenes	ND	5.0	
o-Xylene	ND	5.0	

Surrogate	%REC	Limits
Dibromofluoromethane	93	78-126
1,2-Dichloroethane-d4	93	76-135
Toluene-d8	97	80-120
Bromofluorobenzene	93	80-126



BTXE & Oxygenates						
Lab #:	196096	Location:	Watergate Towers			
Client:	Geomatrix Consultants	Prep:	EPA 5030B			
Project#:	STANDARD	Analysis:	EPA 8260B			
Field ID:	SB-04-06	Diln Fac:	0.9804			
MSS Lab ID:	196096-011	Batch#:	127494			
Matrix:	Soil	Sampled:	07/17/07			
Units:	ug/Kg	Received:	07/19/07			
Basis:	as received	Analyzed:	07/23/07			

Type: MS		Lab ID:		QC397381		
Analyte	MSS	Result	Spiked	Result	%REC	Limits
tert-Butyl Alcohol (TBA)		<3.013	245.1	162.3	66	45-123
MTBE		1.011	49.02	41.34	82	55-120
Isopropyl Ether (DIPE)		<0.1696	49.02	41.09	84	50-120
Ethyl tert-Butyl Ether (ETB	E)	<0.08887	49.02	39.85	81	58-120
1,2-Dichloroethane		<0.1943	49.02	42.15	86	56-120
Benzene		0.2064	49.02	47.19	96	61-122
Methyl tert-Amyl Ether (TAM	E)	<0.1769	49.02	43.93	90	60-120
Toluene		<0.5418	49.02	44.85	92	57-124
1,2-Dibromoethane		<0.2179	49.02	39.30	80	57-120
Ethylbenzene		<0.5715	49.02	42.87	87	55-129
m,p-Xylenes		<1.282	98.04	81.15	83	53-127
o-Xylene		<0.5054	49.02	41.21	84	54-127
Surrogate	%REC	Limits				
Dibromofluoromethane	100	78-126				
1,2-Dichloroethane-d4	92	76-135				
Toluene-d8	99	80-120				
Bromofluorobenzene	106	80-126				

Type: MSI	C		Lab ID:	QCE	397382			
Analyte		Spiked		Result	%REC	Limits	RPD	Lim
tert-Butyl Alcohol	(TBA)	245.1		140.9	57	45-123	14	32
MTBE		49.02		38.58	77	55-120	7	20
Isopropyl Ether (D	IPE)	49.02		40.43	82	50-120	2	20
Ethyl tert-Butyl Ethyl	ther (ETBE)	49.02		39.10	80	58-120	2	20
1,2-Dichloroethane		49.02		37.01	76	56-120	13	20
Benzene		49.02		46.77	95	61-122	1	20
Methyl tert-Amyl Et	ther (TAME)	49.02		44.24	90	60-120	1	20
Toluene		49.02		46.95	96	57-124	5	21
1,2-Dibromoethane		49.02		36.61	75	57-120	7	20
Ethylbenzene		49.02		47.19	96	55-129	10	23
m,p-Xylenes		98.04		92.06	94	53-127	13	23
o-Xylene		49.02		45.41	93	54-127	10	22
Gurrogat	\$DEC	Timita						
Dibuomofluowomotho		70 126						
1 2 Dichleroothan	A 92	76 125						
T,Z-DICHIOFOELHane-	-u4 81 07	/0-135 00 120						
Toruene-d8	97	80-120						
Bromolluoropenzene	99	80-126						