

February 16, 1996

Ms. Juliet Shin  
Alameda County Health Agency  
1131 Harbor Bay Parkway, 2nd Floor  
Alameda, CA 94502

Dear Ms. Shin:

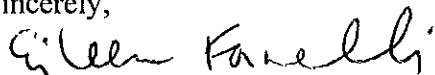
Subject: Adeline Maintenance Center Project  
Transmittal of the response to comments on the MMP and the analytical data for phase 1 additional investigation activities

Attached are copies of two documents, prepared by Geoplexus, Inc., on behalf of the East Bay Municipal Utility District (District). They include: a response to Alameda County Review Comments to MMP as discussed in our meeting on December 22, 1995 and a summary of the analytical data collected from investigation activities conducted as described in Addendum No.1 to the Materials Management Plan (MMP).

Please note that the response to review comments includes an evaluation of the potential for human health risk due to gasoline vapors entering the building. The analysis was completed for benzene was a conservative measure of gasoline vapor. As we subsequently discussed on the phone, the clean-up level of 0.3 ppm benzene is below the ASTM default value of 0.48 ppm benzene for soil vapor infusion into a building. Based on this data, there is no health risk to workers from gasoline vapors that may enter the newly constructed fleet maintenance building. As we further discussed, the District has based our decision not to install vapor barriers beneath the fleet maintenance building as originally described in the MMP, in part on this data.

The analytical data provided will be incorporated into the final closure documentation for the phase 1 construction. As we discussed, we will also include more recent sample analytical results for lead, in the area outside of the new fleet maintenance footprint. I will call you in the near future to schedule a conference call to agree on the format of the final closure document.

Sincerely,



EILEEN FANELLI  
Senior Environmental Compliance Specialist

EMF:prb

cc. David Tsztoo/District, Mike Perotti/Walsh Pacific, John Esposito/CCM

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OAKLAND

February 2, 1996

Walsh Pacific Construction  
EBMUD Adeline Maintenance Facility  
2130-A Adeline Street  
Oakland, CA 94606  
Attn.: Mr. Mike Perotti

Subject: Response to Alameda County Review Comments on the  
Materials Management Plan for the EBMUD Adeline Maintenance Facility

References: (a) Materials Management Plan for EBMUD Adeline Maintenance Facility,  
Oakland, CA, prepared by Geo Plexus, Inc., dated January 18, 1996  
(b) Addendum No.1 to the Materials Management Plan for EBMUD Adeline  
Maintenance Facility, Oakland, CA, prepared by Geo Plexus, Inc., dated  
January 18, 1996

Dear Mr. Perotti

This letter provides our response to the general and specific review comments on the Materials Management Plan (MMP) and on Addendum No.1 to the MMP, references (a) and (b), presented by Ms. Julliet Shin with the Alameda County Department of Environmental Health during our meeting of January 31, 1995.

Our responses to these comments are provided below:

(1) In accordance with the State of California Water Resource Board and the Regional Water Quality Control Board supplemental guidelines for application of the ASTM Risk-Based Corrective Action (RBCA), a State of California correction factor of 0.29 will be applied to the Benzene concentrations as determined by the ASTM-RBCA process and presented in Table 2 of the MMP.

(2) In consideration of vapor generation and migration from fuel impacted soils which may be left in-place beneath structures, the ASTM-RBCA concentration values for vapor migration have been included in Table 2 of the MMP.

(3) Table 2 of the MMP is corrected to read as presented below.

**TABLE 2 (revised)**

**THRESHOLD VALUES FOR SOIL**

Constituent	Tri-Regional Guidelines	RBSL to Protect Ground Water	RBSL for Soil Vapor Intrusion Into Buildings
TPH gas	100 ppm	unlimited	unlimited
TPH diesel	1,000 ppm	unlimited	unlimited
Oil & Grease	1,000 ppm	unlimited	unlimited
Benzene	0.3 ppm	1.68 ppm	0.49 ppm
Toluene	0.3 ppm	361 ppm	54.5 ppm
Ethylbenzene	1 ppm	133 ppm	90.8 ppm
Xylenes	1 ppm	not applicable	not applicable

(4) As presented in the MMP, and in Addendum No. 1, it is currently proposed to excavate the fuel contaminated soils from within the footprint of the Phase 1 Fleet Maintenance Building to achieve residual concentrations of the specified constituents below the Tri-Regional Guideline concentrations. These criteria are below the ASTM-RBCA criteria for ground water protection and below the criteria for soil vapor intrusion into buildings. Based on the applicable criteria for contaminants of concern, it is our opinion that residual soils beneath the structure will not generation significant petroleum related gases. Furthermore, since there is a 6- to 7-foot thick compacted fill layer between the residual materials and the building slab and noting that the floor slab is to be treated with a protective sealing compound, it is our opinion that any petroleum related volatile gases generated from the remaining soil beneath the Phase-1 structure will not present a significant risk to the personnel working within the planned building.

(5) An evaluation of the risk for soil gas generation and migration will be included in the phase-specific addendum for Phase II and Phase III.

(6) Phase-specific risk assessments will be performed to establish threshold criteria for Volatile Organic Compounds (VOC's) which could be present in the soils and to determine the appropriate remedial action (if any).

(7) Phase-specific work plans (addenda) will be prepared to present: additional site investigation activities, sampling, and analytical testing procedures; the findings of any additional risk assessments; and any revisions to the threshold criteria based on the findings of the subsequent investigations. Phase-specific confirmation sampling protocols will also be included in the addendum.

(8) The soil samples obtained from the additional test pits from the Phase-1 construction area (specifically TP-9, 10, 11, and 12) will be analyzed for Heavy Metals and Polynuclear Aromatic Hydrocarbons (PNA's/PAH's) to evaluate the potential health risk to construction workers exposed to these soils. Specific health risks and employee exposure/safety issues and appropriate personal protection are addressed in the Health and Safety Plan prepared by Geo Plexus, Inc. for Walsh Pacific Construction.

(9) The City of Oakland Fire Department will be notified of planned underground storage tank removal activities.

(10) Although removal of the existing hydraulic lifts are exempt from regulatory permitting and regulatory testing, Geo Plexus personnel will provide oversight during the removal activities as set forth in the MMP to document the site conditions. The lifts, piping, and reservoir tanks will be manifested for disposal in accordance with the MMP.


(11) Reports for analytical testing for Volatile Aromatic Compounds (Benzene, Toluene, Ethyl benzene and Xylene) will include results for Methyl-t-butyl ether (MTBE).

(12) The phase-specific confirmation reports will document the excavation, transportation, and disposal/recycling of contaminated soils generated during the remedial excavation process. An additional meeting will be scheduled with Alameda County Department of Environmental Health personnel (Julliet Shin) to agree on the format and detailed content of the confirmation report.

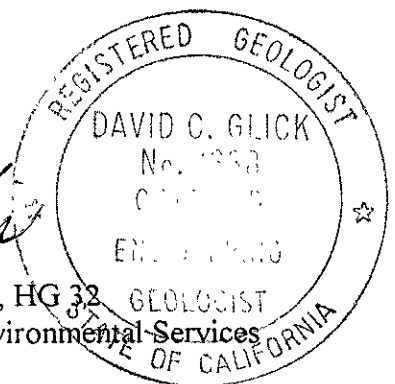
We trust that these responses address the specific items of concern discussed during our meeting. Should you require additional information or need clarification of any information presented in this document, please contact our office.

Respectfully submitted,

Geo Plexus, Incorporated



David C. Glick, CEG 1338, HG 32  
Director, Geologic and Environmental Services



cc: C95041

February 2, 1996

Walsh Pacific Construction  
EBMUD Adeline Maintenance Facility  
2130-A Adeline Street  
Oakland, CA 94607  
Attn.: Mr. Mike Perotti

Subject: Submittal of Analytical Test Data from Phase 1 Additional Test Pits  
EBMUD Adeline Maintenance Center, Oakland, CA

Dear Mr. Perotti

As requested and authorized, Geo Plexus, Inc personnel observed the advancement of additional test pits at the AMC Phase 1 Fleet Maintenance Building construction site and obtained soil samples to further define the limits of the known petroleum impacted soils and to obtain soil samples for pre-characterization for disposal of the excavated soil. Figure 1 indicates the locations of the additional test pits (identified as TP-4 through TP-12).

Soil samples were obtained utilizing an excavator and were collected by advancing a pre-cleaned 2 inch I.D. brass or stainless steel liner into the undisturbed soil contained in the excavator bucket. The soil samples were immediately sealed in the liners using aluminum foil and/or teflon tape and plastic caps and properly labeled including: the date, time, sample location, and project number. The samples were immediately placed in a cooler maintained at 3-5°C for transport to the laboratory under chain-of-custody documentation.

The soil samples were submitted to and tested by McCampbell Analytical, a State of California, Department of Health Services certified testing laboratory. Analytical testing was scheduled and performed in accordance with the State of California, Regional Water Quality Control Board Recommendations for Initial Evaluation and Investigation of Underground Tanks and Alameda County Department of Environmental Health guidelines.

The samples from the perimeter boundary test pits were tested for:

- Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015
- Total Petroleum Hydrocarbons as diesel by Method GCFID 3550/8015
- Volatile Aromatics (BTEX) by EPA Method 8020
- Polynuclear Aromatic Hydrocarbons (PNA's) by modified EPA Method 8270
- LUFT 5-Metals by EPA Methods 7000 series
- TTLC Lead by CCR Title 22 Methods.

The samples from the test pits for pre-characterization were composited by the analytical testing laboratory as 4-part composite samples and tested for:

Total Petroleum Hydrocarbons as gasoline by Method GCFID 5030/8015  
Total Petroleum Hydrocarbons as diesel by Method GCFID 3550/8015  
Volatile Aromatics (BTEX) by EPA Method 8020  
Resistivity, Corrosivity, and Ignitability by CCR Title 22 and EPA 1010 Methods  
TTLC Lead by CCR Title 22 Methods.

The chain of custody documents and analytical test data are attached for your information.

The analytical testing did not detect the presence of PNA's or detect hazardous concentrations of Lead in the soil samples which suggests that the previously observed Lead and PNA's at the location of Boring 6-1 are isolated to the immediate vicinity of the boring. Furthermore, the test data indicates that there is not a significant risk to exposure to these soils and the soils do not represent a situation necessitating remediation for these compounds. Construction workers exposed to these soils should be advised of the potential for the presence of these compounds at elevated concentrations and appropriate health and safety protocols should be implemented.


Based on the additional test pit data, and the established threshold criteria, the minimum limits of excavation of the petroleum contaminated soils have been established and include: approximately 250 yards of soil from beneath the planned footprint of the Fleet Maintenance Building and approximately 1,200 yards of soil from outside of the building footprint. These estimates may be further reduced based on actual soil conditions encountered during the excavation action.

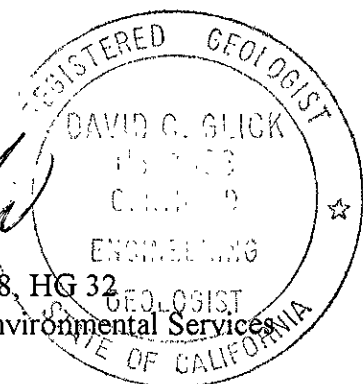
The anticipated maximum limits of excavation of petroleum contaminated soils as presented in the Phase 1 Addendum to the MMP remain unchanged and include: approximately 1,200 yards of soil from beneath the planned footprint of the Fleet Maintenance Building and approximately 1,300 yards of soil from outside of the building footprint.

Should you require additional information, please contact our office.

Respectfully submitted,

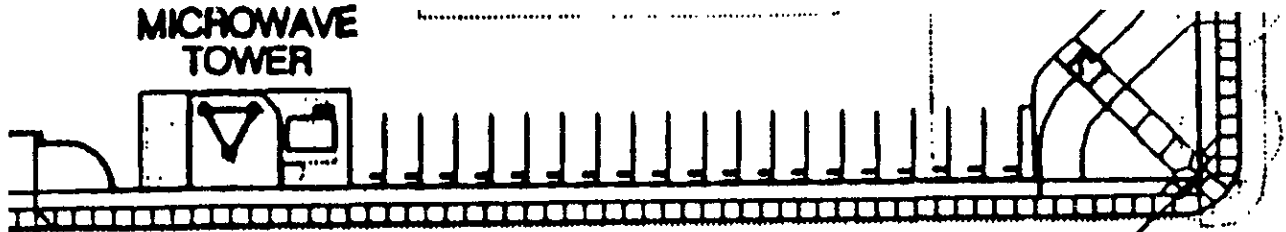
Geo Plexus, Incorporated

  
David C. Glick, CEG 1338, HG 32  
Director, Geologic and Environmental Services



cc: C95041

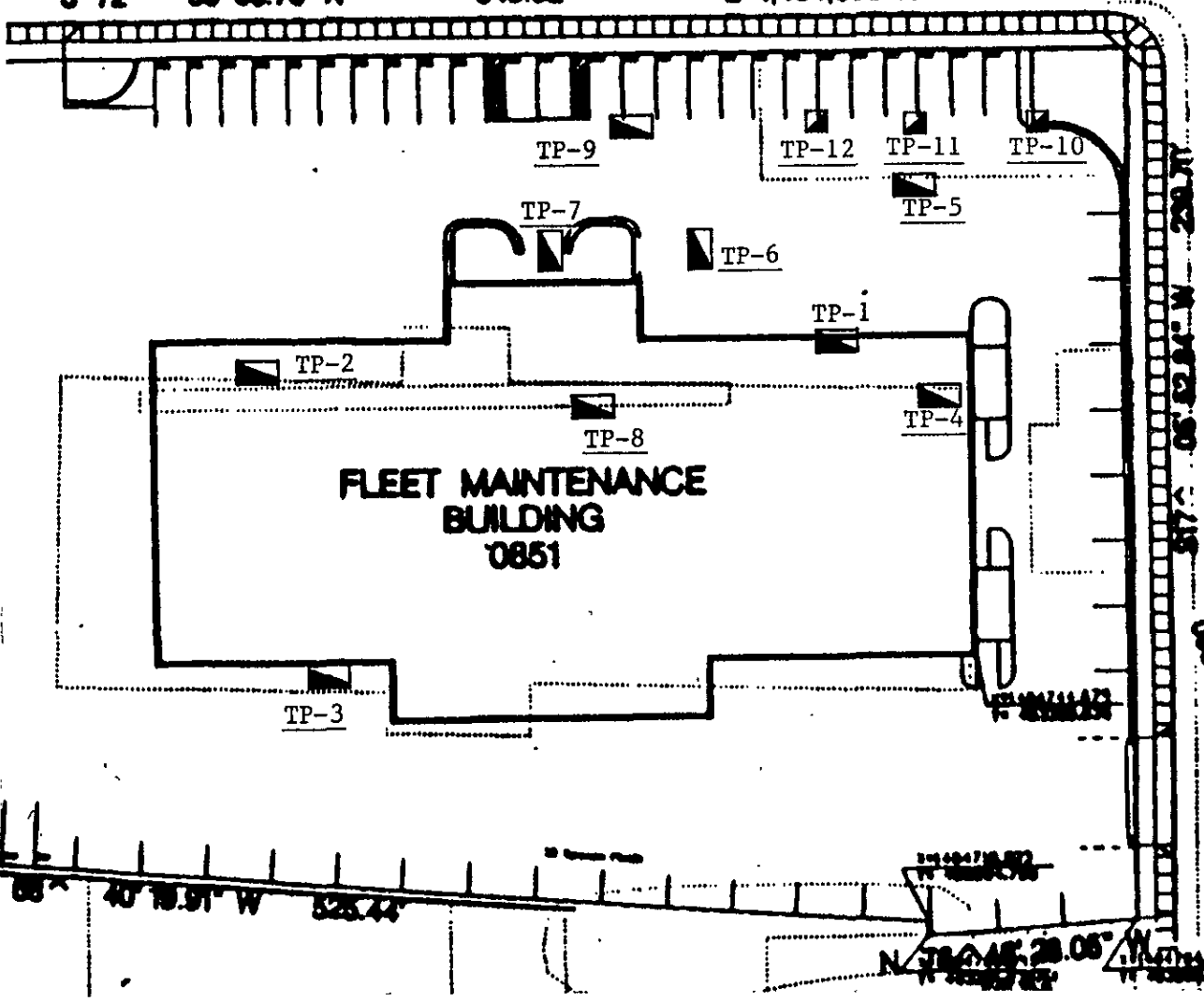
MICROWAVE  
TOWER



PROPERTY CORNER

N 483,554.23  
E 1,484,852.40

S 72° 53' 08.73" W 348.92



FLEET MAINTENANCE  
BUILDING  
0851

NOTE: TEST PITS TP-1 - TP-3 ADVANCED DEC, 1995  
TEST PITS TP-4 - TP-12 ADVANCED JAN, 1996

PHASE 1 TEST PIT LOCATION PLAN

DATE 2/2/96	SCALE 1"=50'	DRAWN BY dcg
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EBMUD ADELINE MAINTENANCE CENTER

Figure 1

5722 AGPX 228

PROJECT NUMBER		PROJECT NAME				Type of Analysis		Condition of Samples	Initial	
CAS041		WALSA Pacific Constr EBMUD								
Send Report Attention of:			Report Due	Verbal Due		Number of Containers	Type of Containers			
DAVID GIER			/ /	/ /						
Sample Number	Date	Time	Comp	Grab	Station Location					
TP4-S1	4/29/96	1525		/	TEST PIT 4 4.5-5'	10A	U/BAGS TUX	✓	✓	60931
TP4-S2		1530		/	TEST PIT 4 6.5-7'			✓	✓	60932
TP4-S3		1653		/	TEST PIT 4 3-7'					60933
TP4-S4		1655		/	TEST PIT 4 3-7'					60934
TP5-S1		1535		/	TEST PIT 5 4-4.5'			✓	✓	60935
TP5-S2		1540		/	TEST PIT 5 6-6.5'			✓	✓	60936
TP5-S3		1705		/	TEST PIT 5 3-7'					60937
TP5-S4		1700		/	TEST PIT 5 3-7'					60938
TP6-S1		1618		/	TEST PIT 6 3-3.5'			<del>✓</del>		60939
TP6-S2		1610		/	TEST PIT 6 5.5-6'			✓	✓	60940
TP6-S3		1625		/	TEST PIT 6 4-7'					60941
TP6-S4		1628		/	TEST PIT 6 4-7'					60942

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Remarks: **RUSH ASAP**

ICEIT  
GOOD CONDITION  
HEAD SPACE ABSENT

PRESERVATIVE APPROPRIATE CONTAINERS

1032



57227 AGP228

PROJECT NUMBER		PROJECT NAME				Number of Cntrs	Type of Containers	Type of Analysis							Condition of Samples	Initial								
095041		WYSH PACIFIC COAST ERMVD						TPH9/OTER	TPHd	TTLc LEAD	TPH9/OTER	TPHd	TTLc LEAD	W.F. 5 METALS			OTER LEAD	PCB						
Send Report Attention of:		Report Due		Verbal Due		Date	Time	Comp	Grab	Station Location	Cntrs	Type of Containers	TPH9/OTER	TPHd	TTLc LEAD	TPH9/OTER	TPHd	TTLc LEAD	W.F. 5 METALS	OTER LEAD	PCB	Condition of Samples	Initial	
DAVID GLOCK		/ /		/ /																				
TP7-S1	4/29/96	1555		/	TEST PIT 7 5.5-6'	1				TEST PIT 7 5.5-6'	1	U-BANDS TUBE	✓	✓									60943	
TP7-S2		1720		/	TEST PIT 7 3-7'					TEST PIT 7 3-7'													60944	
TP7-S3		1723		/	TEST PIT 7 3-7'					TEST PIT 7 3-7'													60945	
TP7-S4		1725		/	TEST PIT 7 3-7'					TEST PIT 7 3-7'													60946	
TP8-S1		1603		/	TEST PIT 8 4-4.5'					TEST PIT 8 4-4.5'			✓	✓									60947	
TP8-S2		1605		/	TEST PIT 8 6.5-7'					TEST PIT 8 6.5-7'			✓	✓		✓	✓	✓					60948	
TP8-S3		1729		/	TEST PIT 8 4-7'					TEST PIT 8 4-7'													60949	
TP8-S4		1730		/	TEST PIT 8 3-5'					TEST PIT 8 3-5'													60950	
TP9-S1		1708		/	TEST PIT 9 3-3.5'					TEST PIT 9 3-3.5'			✓	✓									60951	
TP9-S2		1710		/	TEST PIT 9 5.5-6'					TEST PIT 9 5.5-6'			✓	✓		✓	✓	✓					60952	
TP9-S3		1712		/	TEST PIT 9 3-5'					TEST PIT 9 3-5'													60953	
TP9-S4		1715		/	TEST PIT 9 4-7'					TEST PIT 9 4-7'													60954	

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Relinquished by (Signature):	Date/Time:	Received by (Signature):	Date/Time:

Remarks: *WASH ASAP*

ICEPT GOOD CONDITION PRESERVATIVE APPROPRIATE CONTAINERS

283

5722 AGPX 228

PROJECT NUMBER		PROJECT NAME				Number of Containers	Type of Containers	Type of Analysis					Condition of Samples	Initial
C95041		WATSON PACIFIC COAST EBMD												
Send Report Attention of:			Report Due		Verbal Due									
DAVID GICK			/ /		/ /									
Sample Number	Date	Time	Comp	Grab	Station Location									
TPI-C1	1/29/96	1735		1	TEST PIT 2-4'	1EA	WATER TUBE							
TPI-C2		1736		1	TEST PIT 4-6'			COMPOSITE						
TPI-C3		1737		1	TEST PIT 3-5'									
TPI-C4		1739		1	TEST PIT 5-7'									
<del>Empty rows</del>														
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		Remarks					INITIALS	
<i>[Signature]</i>		1/29/96 1900		Erinn Mahoney		1/29/96 1900		DUST ASAP					WAS 1046 3023	
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		ICE! GOOD CONDITION HEAD SPACE ABSENT					PRESERVATIVE APPROPRIATE CONTAINERS	

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Geo Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, Ca. 95054	Client Project ID: # C95041; Walsh Pacific Const. EBMUD	Date Sampled: 01/29/96
		Date Received: 01/29/96
	Client Contact: David Glick	Date Extracted: 01/29/96
	Client P.O:	Date Analyzed: 01/29/96

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with BTEX\***

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GC/FID(5030)

Lab ID	Client ID	Matrix	TPH(g) <sup>+</sup>	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
60931	TP4-S1	S	ND	ND	ND	ND	ND	103
60932	TP4-S2	S	ND	ND	ND	ND	ND	103
60931-34	TP4-Comp	S	1.0,a	0.016	ND	0.088	0.030	105
60935	TP5-S1	S	ND	ND	ND	ND	ND	105
60936	TP5-S2	S	ND	ND	ND	ND	ND	108
60935-38	TP5-Comp	S	ND	ND	ND	ND	ND	107
60940	TP6-S2	S	210,a	3.4	6.7	3.5	18	100
60939-42	TP6-Comp	S	960,b	11	2.7	7.7	46	114
60943	TP7-S1	S	2.2,a	0.005	0.012	0.025	0.12	109
60943-46	TP7-Comp	S	ND	ND	ND	ND	ND	108
60947	TP8-S1	S	ND	ND	0.005	ND	0.011	108
60948	TP8-S2	S	ND	ND	ND	ND	ND	110
60947-50	TP8-Comp	S	ND	ND	ND	ND	ND	109
60951	TP9-S1	S	8.7,a	0.31	0.018	0.10	0.035	108
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	0.5	0.5	0.5	0.5		
	S	1.0 mg/kg	0.005	0.005	0.005	0.005		

\* water and vapor samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/L

# cluttered chromatogram; sample peak coelutes with surrogate peak

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant (aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

Geo Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, Ca. 95054	Client Project ID: # C95041; Walsh Pacific Const. EBMUD	Date Sampled: 01/29/96
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		Date Analyzed: 01/29/96

**Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline\*, with BTEX\***  
 EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g) <sup>+</sup>	Benzene	Toluene	Ethylbenzene	Xylenes	% Rec. Surrogate
60952	TP9-S2	S	120,a	1.8	0.41	2.7	14	107
60951-54	TP9-Comp	S	15,a	0.18	0.049	0.32	1.7	115 <sup>#</sup>
60955-58	TP1-Comp	S	770,b	ND< 0.3	11	9.9	78	100
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L	0.5	0.5	0.5	0.5	0.5	
	S	1.0 mg/kg	0.005	0.005	0.005	0.005	0.005	

\* water and vapor samples are reported in ug/L, soil samples in mg/kg, and all TCLP extracts in mg/L  
 # cluttered chromatogram; sample peak coelutes with surrogate peak  
 + The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment; j) no recognizable pattern.

Geo Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, Ca. 95054	Client Project ID: # C95041; Walsh Pacific Const. EBMUD	Date Sampled: 01/29/96
	Client Contact: David Glick	Date Received: 01/29/96
	Client P.O:	Date Extracted: 01/29/96
		Date Analyzed: 01/29/96

**Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel \***

EPA methods modified 8015, and 3550 or 3510; California RWOCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d) <sup>+</sup>	% Recovery Surrogate
60931	TP4-S1	S	1.2,b	106
60932	TP4-S2	S	1.6,b	106
60931-34	TP4-Comp	S	1.7,b,d	106
60935	TP5-S1	S	ND	102
60936	TP5-S2	S	ND	105
60935-38	TP5-Comp	S	ND	104
60940	TP6-S2	S	63,d	104
60939-42	TP6-Comp	S	330,b,d	109
60943	TP7-S1	S	1.5,b,d	106
60943-46	TP7-Comp	S	ND	106
60947	TP8-S1	S	ND	106
60948	TP8-S2	S	ND	106
60947-50	TP8-Comp	S	ND	104
60951	TP9-S1	S	2.4,d	104
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L		
	S	1.0 mg/kg		

\* water samples are reported in ug/L, soil samples in mg/kg, and all TCLP and STLC extracts in mg/L

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

Geo Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, Ca. 95054	Client Project ID: # C95041; Walsh Pacific Const. EBMUD	Date Sampled: 01/29/96
	Client Contact: David Glick	Date Received: 01/29/96
	Client P.O:	Date Extracted: 01/29/96
		Date Analyzed: 01/29/96

**Diesel Range (C10-C23) Extractable Hydrocarbons as Diesel \***

EPA methods modified 8015, and 3550 or 3510; California RWQCB (SF Bay Region) method GCFID(3550) or GCFID(3510)

Lab ID	Client ID	Matrix	TPH(d) <sup>+</sup>	% Recovery Surrogate
60952	TP9-S2	S	14,d	104
60951-54	TP9-Comp	S	ND	105
60955-58	TP1-Comp	S	62,d	106
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	W	50 ug/L		
	S	1.0 mg/kg		

\* water samples are reported in ug/L, soil samples in mg/kg, and all TCLP and STLC extracts in mg/L

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+ The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified diesel is significant; b) diesel range compounds are significant; no recognizable pattern; c) aged diesel? is significant; d) gasoline range compounds are significant; e) medium boiling point pattern that does not match diesel (?); f) one to a few isolated peaks present; g) oil range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~ 5 vol. % sediment.

Geo Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, Ca. 95054	Client Project ID: # C95041; Walsh Pacific Const. EBMUD	Date Sampled: 01/29/96
	Client Contact: David Glick	Date Received: 01/29/96
	Client P.O:	Date Extracted: 01/30/96
		Date Analyzed: 01/30/96

Lead\*

EPA analytical methods 6010/200.7, 239.2\*

Lab ID	Client ID	Matrix	Extraction <sup>o</sup>	Lead*	% Recovery Surrogate
60931-34	TP4-Comp	S	TTLIC	ND	88
60935	TP5-S1	S	TTLIC	3.5	85
60935-38	TP5-Comp	S	TTLIC	6.2	91
60939-42	TP6-Comp	S	TTLIC	31	94
60943-46	TP7-Comp	S	TTLIC	15	92
60947-50	TP8-Comp	S	TTLIC	21	94
60951	TP9-S1	S	TTLIC	4.2	95
60951-54	TP9-Comp	S	TTLIC	8.5	92
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		S	TTLIC	3.0 mg/kg	
		W	TTLIC	0.005 mg/L	
		---	STLC,TCLP	0.2 mg/L	

\* soil samples are reported in mg/kg, and water samples and all STLC & TCLP extracts in mg/L  
 + Lead is analysed using EPA method 6010 (ICP) for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples  
 o EPA extraction methods 1311(TCLP), 3010/3020(water,TTLIC), 3040(organic matrices,TTLIC), 3050(solids,TTLIC); STLC from CA Title 22  
 # surrogate diluted out of range; N/A means surrogate not applicable to this analysis  
 i) liquid sample that contains greater than ~ 2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553  
 Tele: 510-798-1620 Fax: 510-798-1622

Geo Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, Ca. 95054	Client Project ID: # C95041; Walsh Pacific Const. EBMUD	Date Sampled: 01/29/96
	Client Contact: David Glick	Date Received: 01/29/96
	Client P.O:	Date Extracted: 01/30/96
		Date Analyzed: 01/30/96

**RCI (Reactivity, Corrosivity & Ignitability)**

CA Title 22, Section 66261.21-66261.23

Lab ID	Client ID	Matrix	Reactivity <sup>+</sup>	Corrosivity (pH)	Ignitability <sup>o</sup>
60939-42	TP6-Comp	S	negative	6.47	negative

+ negative means no obvious reaction with water, no evolution of gas upon contact with water, appears to contain no reactive cyanide or sulfide (< ~ 5 mg/kg cyanide and 50mg/kg sulfide by EPA SW-846, chapter 7, modified), and shows no indication of explosivity.

o negative for a soil means the absence of spontaneous combustion and the absence of flammability upon exposure to a naked flame.



# GeoPlexus, Inc.

## CHAIN - OF - CUSTODY

5729

1900 Wyatt Drive, Suite I, Santa Clara, California 95054

Phone 408/987-0210 Fax 408/988-0815

AGPX 009

PROJECT NUMBER		PROJECT NAME				Type of Analysis		Condition of Samples
C95041		WALSH PACIFIC CONSTR (EBMUD)						
Send Report Attention of:		Report Due	Verbal Due	Number of Entries	Type of Containers			
DAVID GILCH		1 1	1 1					
Sample Number	Date	Time	Comp	Grab	Station Location			
TP9-m1	1/30/96	1035		1	TEST PIT 9 3-4'	1EA	1" STAINLESS STEEL TUBS	60976
TP10-m1		1050		1	TEST PIT 10 3-4'			60977
TP11-m1		1052		1	TEST PIT 11 3-4'			60978
TP12-m1		1055		1	TEST PIT 12 3-4'			60979
<p>ICE/T° <input checked="" type="checkbox"/> PRESERVATIVE <input checked="" type="checkbox"/></p> <p>GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE <input checked="" type="checkbox"/></p> <p>HEAD SPACE ABSENT <input checked="" type="checkbox"/> CONTAINERS <input checked="" type="checkbox"/></p>						<p>WASH <input checked="" type="checkbox"/> METALS <input checked="" type="checkbox"/> OTHER <input type="checkbox"/></p>		
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		REMARKS: <u>WASH ASAP</u>
[Signature]		1-30-96 1523		[Signature]		1-30-96		
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		
[Signature]		1-30-96		[Signature]		1-30-96 5:20		
Relinquished by: (Signature)		Date/Time		Received by: (Signature)		Date/Time		

Geo Plexus, Inc. 1900 Wyatt Drive, # 1 Santa Clara, Ca. 95054	Client Project ID: # C95041; Walsh Pacific Construction, EBMUD	Date Sampled: 01/30/96
	Client Contact: David Glick	Date Received: 01/30/96
	Client P.O:	Date Extracted: 01/30/96
		Date Analyzed: 01/31/96

**Metals\***

EPA analytical methods 6010/200.7, 239.2\*

Lab ID	Client ID	Matrix	Extraction <sup>o</sup>	Cadmium	Chromium	Lead	Nickel	Zinc	Copper	% Rec. Surrogate
60976	TP9-M1	S	TTLIC	ND	22	73	33	80	25	99
60977	TP10-M1	S	TTLIC	ND	25	280	16	55	12	91
60978	TP11-M1	S	TTLIC	ND	22	10	14	18	6.8	91
60979	TP12-M1	S	TTLIC	ND	20	220	20	110	37	90
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit	S	TTLIC	0.5 mg/kg	0.5	3.0	2.0	1.0	2.0		
	W	TTLIC	0.01 mg/L	0.005	0.005	0.02	0.01	0.02		
	---	STLC,TCLP	0.01 mg/L	0.05	0.2	0.05	0.05	0.05		

OK Both below  
 EPA threshold for  
 residential surficial  
 soil. gms  
 1/22/96

\* soil samples are reported in mg/kg, and water samples and all STLC & TCLP extracts in mg/L

+ Lead is analysed using EPA method 6010 (ICP) for soils, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

o EPA extraction methods 1311(TCLP), 3010/3020(water, TTLIC), 3040(organic matrices, TTLIC), 3050(solids, TTLIC); STLC from CA Title 22

# surrogate diluted out of range; N/A means surrogate not applicable to this analysis

i) liquid sample that contains greater than ~ 2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

AGPX 029

PROJECT NUMBER		PROJECT NAME				Number of Containers	Type of Containers	Type of Analysis										Condition of Samples				
C95041		WALSH PACIFIC CONSTR EBMUD																				
Send Report Attention of:		Report Due		Verbal Due																		
DAVID GILICK		1/1		1/1																		
Sample Number	Date	Time	Comp	Grab	Station Location																	
TP9-m1	4/30/96	1035		1	TEST PIT 9 3-4'	12A	1" Stainless Steel Tubs															
TP10-m1		1050		1	TEST PIT 10 3-4'																	
TP11-m1		1052		1	TEST PIT 11 3-4'																	
TP12-m1		1055		1	TEST PIT 12 3-4'																	
<p>ICE/T ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓ PRESERVATIVE APPROPRIATE CONTAINERS ✓</p>																						

60976  
60977  
60978  
60979

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>[Signature]</i>	1-30-96	<i>[Signature]</i>	1-30-96
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
<i>[Signature]</i>	1-30-96	<i>[Signature]</i>	1-30-96
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time

Remarks: TOWSH ASAP

# CHROMALAB, INC.

Environmental Services (SDB)

February 2, 1996

Submission #: 9602004

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: GP-W.P.C.  
Received: February 1, 1996

Project#: 5729

re: One sample for Polynuclear Aromatic Hydrocarbons (PAHs) analysis.  
Method: EPA 3550/8270

Sample ID: TP9-M1 3-4' bags  
Sample #: 117325  
Sampled: January 30, 1996

Matrix: SOIL  
Run: 10270-M

Extracted: February 1, 1996  
Analyzed: February 1, 1996

Analyte	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
NAPHTHALENE	N.D.	1.0	N.D.	--
2- METHYLNAPHTHALENE	N.D.	1.0	N.D.	--
2- CHLORONAPHTHALENE	N.D.	1.0	N.D.	--
ACENAPHTHYLENE	N.D.	1.0	N.D.	--
ACENAPHTHENE	N.D.	1.0	N.D.	79
FLUORENE	N.D.	1.0	N.D.	--
PHENANTHRENE	N.D.	1.0	N.D.	--
ANTHRACENE	N.D.	1.0	N.D.	--
FLUORANTHRENE	N.D.	1.0	N.D.	82
PYRENE	N.D.	1.0	N.D.	--
BENZO (A) ANTHRACENE	N.D.	1.0	N.D.	--
CHRYSENE	N.D.	1.0	N.D.	--
BENZO (B) FLUORANTHRENE	N.D.	2.0	N.D.	--
BENZO (K) FLUORANTHRENE	N.D.	2.0	N.D.	--
BENZO (A) PYRENE	N.D.	0.50	N.D.	--
IDENO (1, 2, 3-CD) PYRENE	N.D.	2.0	N.D.	--
DIBENZO (A, H) ANTHRACENE	N.D.	2.0	N.D.	--
BENZO (GHI) PERYLENE	N.D.	2.0	N.D.	--

*Michael R. Verona*  
Michael Verona  
Chemist

*Alex Tam*  
Alex Tam  
Semivolatiles Supervisor

# CHROMALAB, INC.

Environmental Services (SDB)

February 2, 1996

Submission #: 9602004

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: GP-W.P.C.  
Received: February 1, 1996

Project#: 5729

re: One sample for Polynuclear Aromatic Hydrocarbons (PAHs) analysis.  
Method: EPA 3550/8270

SampleID: TF10-M1 3-4' bgs  
Sample #: 117326  
Sampled: January 30, 1996

Matrix: SOIL      Extracted: February 1, 1996  
Run: 10270-M      Analyzed: February 1, 1996

Analyte	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT	RESULT	RESULT
		(mg/Kg)	(mg/Kg)	(%)
NAPHTHALENE	N.D.	0.5	N.D.	--
2- METHYLNAPHTHALENE	N.D.	0.5	N.D.	--
2- CHLORONAPHTHALENE	N.D.	0.5	N.D.	--
ACENAPHTHYLENE	N.D.	0.5	N.D.	79
ACENAPHTHENE	N.D.	0.5	N.D.	--
FLUORENE	N.D.	0.5	N.D.	--
PHENANTHRENE	N.D.	0.5	N.D.	--
ANTHRACENE	N.D.	0.5	N.D.	--
FLOORANTHRENE	N.D.	0.5	N.D.	82
PYRENE	N.D.	0.5	N.D.	--
BENZO (A) ANTHRACENE	N.D.	0.5	N.D.	--
CHRYSENE	N.D.	0.5	N.D.	--
BENZO (B) FLUORANTHENE	N.D.	1.0	N.D.	--
BENZO (K) FLUORANTHENE	N.D.	1.0	N.D.	--
BENZO (A) PYRENE	N.D.	0.25	N.D.	--
IDENO (1, 2, 3-CD) PYRENE	N.D.	1.0	N.D.	--
DIBENZO (A, H) ANTHRACENE	N.D.	1.0	N.D.	--
BENZO (GHI) PERYLENE	N.D.	1.0	N.D.	--

*Michael R. Verona*  
Michael Verona  
Chemist

*Alex Tam*  
Alex Tam  
Semivolatiles Supervisor

# CHROMALAB, INC.

Environmental Services (SDB)

February 2, 1996

Submission #: 9602004

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: GP-W.P.C.  
Received: February 1, 1996

Project#: 5729

re: One sample for Polynuclear Aromatic Hydrocarbons (PAHs) analysis.  
Method: EPA 3550/8270

Sample ID: TP11-M1 3-y/kg  
Sample #: 117327  
Sampled: January 30, 1996

Matrix: SOIL  
Run: 10270-M

Extracted: February 1, 1996  
Analyzed: February 1, 1996

Analyte	RESULT	REPORTING	BLANK	BLANK SPIKE
	(mg/Kg)	LIMIT (mg/Kg)	RESULT (mg/Kg)	RESULT (%)
NAPHTHALENE	N.D.	0.1	N.D.	--
2- METHYLNAPHTHALENE	N.D.	0.1	N.D.	--
2- CHLORONAPHTHALENE	N.D.	0.1	N.D.	--
ACENAPHTHYLENE	N.D.	0.1	N.D.	--
ACENAPHTHENE	N.D.	0.1	N.D.	79
FLUORENE	N.D.	0.1	N.D.	--
PHENANTHRENE	N.D.	0.1	N.D.	--
ANTHRACENE	N.D.	0.1	N.D.	--
FLUORANTHRENE	N.D.	0.1	N.D.	--
PYRENE	N.D.	0.1	N.D.	82
BENZO (A) ANTHRACENE	N.D.	0.1	N.D.	--
CHRYSENE	N.D.	0.1	N.D.	--
BENZO (B) FLUORANTHENE	N.D.	0.2	N.D.	--
BENZO (K) FLUORANTHENE	N.D.	0.2	N.D.	--
BENZO (A) PYRENE	N.D.	0.05	N.D.	--
IDENO (1, 2, 3-CD) PYRENE	N.D.	0.2	N.D.	--
DIBENZO (A, H) ANTHRACENE	N.D.	0.2	N.D.	--
BENZO (GHI) PERYLENE	N.D.	0.2	N.D.	--

*Michael R. Verona*  
Michael Verona  
Chemist

*Alex Tam*  
Alex Tam  
Semivolatiles Supervisor

# CHROMALAB, INC.

Environmental Services (SOB)

February 2, 1996

Submission #: 9602004

MCCAMPBELL ANALYTICAL, INC.

Atten: Ed Hamilton

Project: GP-W.P.C.  
Received: February 1, 1996

Project#: 5729

re: One sample for Polynuclear Aromatic Hydrocarbons (PAHs) analysis.  
Method: EPA 3550/8270

Sample ID: TP12-M1 3-4' bags  
Sample #: 117328  
Sampled: January 30, 1996

Matrix: SOIL  
Run: 10270-M

Extracted: February 1, 1996  
Analyzed: February 1, 1996

Analyte	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE RESULT (%)
NAPHTHALENE	N.D.	0.1	N.D.	--
2-METHYLNAPHTHALENE	N.D.	0.1	N.D.	--
2-CHLORONAPHTHALENE	N.D.	0.1	N.D.	--
ACENAPHTHYLENE	N.D.	0.1	N.D.	--
ACENAPHTHENE	N.D.	0.1	N.D.	79
FLUORENE	N.D.	0.1	N.D.	--
PHENANTHRENE	N.D.	0.1	N.D.	--
ANTHRACENE	N.D.	0.1	N.D.	--
FLUORANTHRENE	N.D.	0.1	N.D.	--
PYRENE	N.D.	0.1	N.D.	82
BENZO (A) ANTHRACENE	N.D.	0.1	N.D.	--
CHRYSENE	N.D.	0.1	N.D.	--
BENZO (B) FLUORANTHENE	N.D.	0.2	N.D.	--
BENZO (K) FLUORANTHENE	N.D.	0.2	N.D.	--
BENZO (A) PYRENE	N.D.	0.05	N.D.	--
IDENO (1, 2, 3-CD) PYRENE	N.D.	0.02	N.D.	--
DIBENZO (A, H) ANTHRACENE	N.D.	0.2	N.D.	--
BENZO (GHI) PERYLENE	N.D.	0.2	N.D.	--

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