November 3, 2011

Jennifer Scholte
State Water Resources Control Board
Division of Water Quality
PO Box 2231
Sacramento, CA 95812

SUBJECT: Comments on Low-Threat UST Closure Scoping Document

Dear Ms. Scholte:

Concern

Item #3 (Air Quality) in Section VI of the scoping document (Environmental Impacts) indicates the proposed low-threat UST closure policy will not expose sensitive receptors to substantial pollutant concentrations (i.e. Item #3c on page 12). My review of the technical justification document for the vapor intrusion portion of the low-threat policy suggests the policy may lead to conclusions of no significant vapor inhalation health risk when in-fact a significant vapor inhalation risk may exist. Therefore, it appears sensitive receptors may in-fact be exposed to substantial pollution concentrations if the vapor intrusion portion of the policy is implemented (i.e. a potentially significant impact may exist).

Evidence for the Concern

Attachment A contains a site plan (Figure 2) and laboratory results from the analysis of soil and subsurface vapor samples (Tables 1 and 2) collected at San Mateo County Local Oversight Program (LOP) LUFT Case #220036 located at 101 South Mayfair Avenue in Daly City, California. USGS Open-File Report 98-137 indicates this site is underlain by the Pleistocene Colma Formation and boring logs indicate this formation in this area is comprised of sand containing up to 15% silt. Soil sampling results indicate the LUFT release (gasoline) occurred sometime prior to April 1994. The depth to groundwater is >100 feet below grade (fbg).

The sampling results for LUFT Case #220036 appear to challenge some of the assumptions and conclusions in the technical justification document used for the vapor intrusion portion of the low-threat closure policy. For example:

1. Paragraph 2 in the executive summary of the technical justification document states that for "low concentration" hydrocarbon sources "there is less than a 5% probability that benzene concentrations in soil gas would exceed a conservative screening level of 100 ug/m3 at a distance of 5 feet above the source". However, comparing the benzene concentration reported in the subsurface vapor sample from TVW-3 (1,600,000 ug/m^3 at 4 to 5 fbg) to the benzene concentration in the vapor sample from adjacent sample SS-2 (1,500,000 ug/m^3 at 0.5 fbg) does not support this conclusion. Note that the O_2 concentration in these two samples exceeded 1%, the modeling cut-off point.

2. Could the benzene vapor concentrations reported in TVW-3 and SS-2 satisfy the "high concentration" hydrocarbon source category in the technical document? Not according to Section 4 which defines soil gas concentrations as a "low concentration" source. Moreover, the "high concentration" source category is for unweathered residual NAPL in soil and it is debatable whether a gasoline release occurring sometime prior to April 1994 would have a significant amount of unweathered NAPL. Nevertheless, let's assume site conditions satisfy the "high concentration" category. Paragraph 3 in the executive summary of the technical justification document states that for "high concentration" hydrocarbon sources "the distance required to attenuate soil vapor concentrations to below typical screening levels are on the order of 8 to 13 feet" and Section 3.2.2 of the document stated 8 feet was actually sufficient for unweathered NAPL sites. However, comparison of the benzene vapor concentrations between TVW-3 and SS-2 also do not appear to support these conclusions (i.e. the benzene vapor concentrations only attenuated 9% over a distance of 4 to 5 feet). Furthermore, it is also reasonable to assume that the distance to the NAPL source is >>5 fbg given the soil texture at this site and the location of the sampling points and product storage and dispensing facilities.

3. It appears the technical justification is based on modeling and evaluation of field soil-gas data. Undoubtedly a large portion of this field data was collected using a direct-push drilling rig (e.g. Geoprobe). The problem is the PRT fitting in the direct-push vapor sampling assembly can allow ambient to enter the vapor sample, thus yielding a potentially unrepresentative sample. This sampling leak occurs because the PRT fitting is screwed into the bottom of the drilling pipe by rotating the plastic sample conveyance tubing from the ground surface (an action that conceptually does not appear regularly capable of rotating the PRT fitting to point where it forms an air-tight seal). This "leaking" condition is also supported by the subsurface vapor data in Attachment A. Note that the hydrocarbon concentrations reported in subsurface vapor samples SV1 through SV4 (collected using direct-push borings) are significantly less than those collected from vapor sampling wells TVW-1 through TVW-3. We would expect the samples from SV2 and SV4 to contain greater hydrocarbon concentrations because they were collected almost three years before the TVW samples (less NAPL weathering) and closer to the areas of greatest documented soil impact (see Figure 2). Our concern is that investigators using the SV direct-push sampling results may argue subsurface vapors do not pose an unacceptable indoor air risk under Scenario 4 of the policy (Media-Specific Criterion #2a on page 7 and Appendix 4 of the low-threat policy) when in-fact the results from SS-2 and TVW-1 through TVW-3 (non direct-push samples) indicate a significant inhalation risk may exist. This discussion suggests the conclusions from the modeling and evaluation of the field soil-gas data may be flawed if the data used in the analysis includes vapor sampling results from direct-push borings (as I suspect it does). Therefore, the conclusions in the vapor intrusion portion of the low-threat UST closure policy may be flawed because they are based on the conclusions in the technical document.

4. The figure on pages 11 and 15 of the technical justification indicates the vapor sampling data used in at least a portion of the technical evaluation includes data from "near-slab" samples. Some researchers have indicated that near-slab vapor samples may contain lower hydrocarbon concentrations than those located closer to the center of the slab because of how vapors are believed to flow up through the slab into the overlying building and the proximity of the fill beneath the slab at a near-slab sampling location to an ambient air source (e.g. New York State Soil Vapor Intrusion Guidance, October 2006, page 15). It is interesting to note that the hydrocarbon concentrations in sub-slab vapor sample SS-1 (near-slab sample) were significantly less than those reported in SS-2 (more centrally located sample), even though SS-1 was located closer to a documented hydrocarbon source area. Therefore, it is debatable whether the technical evaluation should have included the results from "near-slab" sampling locations.

Conclusion

Actual sampling data appears to challenge some of the conclusions in the technical justification document used for the vapor intrusion portion of the low-threat UST closure policy. In addition, the data set used in the technical justification document may not be representative. Hence, the low-threat vapor intrusion portion of the policy may lead to conclusions of no significant vapor inhalation risk when in-fact a significant risk may exist because the policy is based on potentially flawed conclusions in the technical justification. Therefore, implementation of the policy may expose sensitive receptors to substantial pollution concentrations (i.e. a significant impact may exist).

Recommendation

In addition to considering the applicability of these comments to the scoping document, the SWRCB should forward this letter to the University of California team reviewing the technical merits of the proposed low-threat UST closure policy so they can determine whether these comments could reasonably affect the merits of the vapor intrusion portion of the proposed policy. Please note, the comments expressed in this letter represent my personal comments and may not represent the position of the San Mateo County LOP. I can be reached at (650) 372-6292 or at dmilano@smcgov.org .

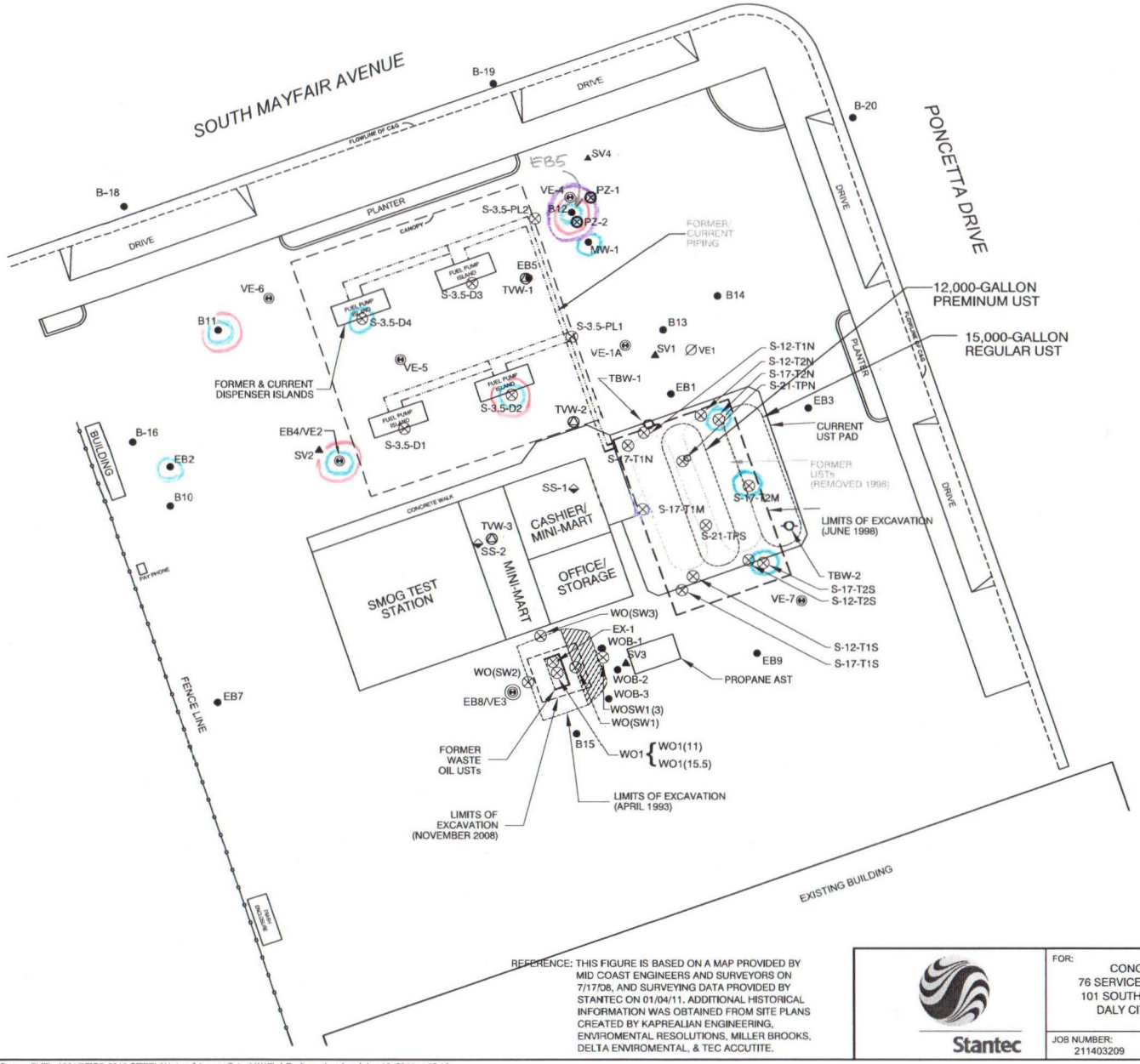
Sincerely,

Deno G. Milano, PG
Foster City, CA

ATTACHMENT A

SAN MATEO COUNTY LOP

101 So. MAYFAIR AVENUE
DALY CITY, CA
LUFT CASE # 220036



LEGEND:

- B-12/EB1 ● SOIL BORING (NOTE: THERE ARE NO EB6 AND B-17)
- S-3.5-PL1 ⊗ SOIL SAMPLE LOCATION
- SV2 ▲ SOIL VAPOR SAMPLE LOCATION
- VE-1A ⊕ SOIL VAPOR EXTRACTION WELL
- VE1 ∅ DESTROYED WELL
- PZ-2 ⊗ PIEZOMETER
- TVW-1 ⊙ TEMPORARY VAPOR WELL
- TBW-2 ⊙ TANK BACKFILL WELL LOCATION
- SS-1 ◆ SUB-SLAB VAPOR PROBE
- AREA OF ADDITIONAL EXCAVATION (APRIL, 1993)

SV1 through SV4 were geoprobe data (negative bias?)

Sand w/up to 15% silt
GW > 100 fbg

○ = ≥ 5 mg/kg benzene in soil
○ = ≥ 50 mg/kg benzene in soil
○ = ≥ 500 mg/kg benzene

N

0 20 40

APPROXIMATE SCALE IN FEET

REFERENCE: THIS FIGURE IS BASED ON A MAP PROVIDED BY MID COAST ENGINEERS AND SURVEYORS ON 7/17/08, AND SURVEYING DATA PROVIDED BY STANTEC ON 01/04/11. ADDITIONAL HISTORICAL INFORMATION WAS OBTAINED FROM SITE PLANS CREATED BY KAPREALIAN ENGINEERING, ENVIROMENTAL RESOLUTIONS, MILLER BROOKS, DELTA ENVIROMENTAL, & TEC ACCUTITE.

Stantec

FOR: CONOCO PHILLIPS
76 SERVICE STATION NO. 3816
101 SOUTH MAYFAIR AVENUE
DALY CITY, CALIFORNIA

SITE PLAN

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211403209	MDR	MB	DB	01/10/11

FILEPATH:M:\ConocoPhillips\3816\FIG2-3816-SITEPLAN.dwg | Layout Tab: 11X17L | Drafter: miramirez | Jan 10, 2011 at 15:19

TABLE 2
HISTORICAL SOIL VAPOR ANALYTICAL DATA

76 Service Station No. 3816
101 South Mayfair Avenue
Daly City, California

Sample ID	Sample Depth (feet, bgs)	Date Sampled	Vacuum Initial (inHg)	Vacuum Final (inHg)	TPPH [1] (µg/L)	BTEX [2] Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	m/p-Xylenes (µg/m³)	o-Xylenes (µg/m³)	1,2-DCA [2] (µg/m³)	1,3-Dichlorobenzene [2] (µg/m³)	1,4-Dichlorobenzene [2] (µg/m³)	EDB [2] (µg/m³)	ETBE [2] (µg/m³)	Ethanol [3] (µg/m³)	Isopropanol [3] (µg/L)	Isopropyl ether [3] (µg/L)	MTBE [3] (µg/L)	TAME (µg/L)	TBA (µg/L)	Carbon Dioxide [3] (%)	Carbon Monoxide [3] (%)	Methane [3] (%)	Oxygen [3] (%)
SV1																										
SV1-5	5	06/03/04	--	--	61	0.013	<0.0075	0.019	0.012	--	--	--	--	--	--	--	--	<0.024	--	<0.0072	--	--	5.0	<0.0019	0.011	15
SV1-10	10	06/03/04	--	--	1,600	<0.0064	<0.0075	0.0096	<0.0087	--	--	--	--	--	--	--	--	3,700	--	<0.0072	--	--	0.034	<0.0019	<0.00038	22
SV2																										
SV2-5	5	06/04/04	--	--	33,000	3.8	<0.49	0.78	<0.56	--	--	--	--	--	--	--	--	<1.5	--	82	--	--	5.7	<0.0020	1.7	4.5 [4]
SV2-8.5	8.5	06/04/04	--	--	2,600	0.37	0.030	0.095	0.233	--	--	--	--	--	--	--	--	3,500	--	<0.0072	--	--	0.074	<0.0019	0.0079	22
SV3																										
SV3-5	5	06/03/04	--	--	8.1	0.015	0.033	0.034	0.098	--	--	--	--	--	--	--	--	1.4	--	<0.0072	--	--	0.65	<0.0019	0.00039	21
SV3-8.5	8.5	06/03/04	--	--	210	<6.1	<7.2	<8.3	<8.3	--	--	--	--	--	--	--	--	400	--	<6.9	--	--	0.052	<0.0019	0.0010	22
SV3-8.5 DUP	8.5	06/03/04	--	--	1,100	<6.1	<7.2	<8.3	<8.3	--	--	--	--	--	--	--	--	2,200	--	<6.9	--	--	0.044	<0.0019	0.00071	22
SV4																										
SV4-5	5	06/04/04	--	--	1,900	1.2	0.41	21	68	--	--	--	--	--	--	--	--	1.2	--	<0.29	--	--	0.61	<0.0020	0.0011	20
SV4-8	8	06/04/04	--	--	570	0.44	<0.29	2.7	6.9	--	--	--	--	--	--	--	--	32	--	<0.28	--	--	0.15	<0.0019	0.0023	21

Sample ID	Sample Depth (feet, bgs)	Date Sampled	Vacuum Initial (inHg)	Vacuum Final (inHg)	TPPH [1] (µg/m³)	BTEX [2] Benzene (µg/m³)	Toluene (µg/m³)	Ethylbenzene (µg/m³)	Xylenes (µg/m³)	M- & P- Xylenes (µg/m³)	O-Xylenes (µg/m³)	1,2-DCA [2] (µg/m³)	1,3-Dichlorobenzene [2] (µg/m³)	1,4-Dichlorobenzene [2] (µg/m³)	EDB [2] (µg/m³)	ETBE [2] (µg/m³)	Ethanol [3] (µg/m³)	Isopropanol [3] (µg/m³)	Isopropyl ether [3] (µg/m³)	MTBE [3] (µg/m³)	TAME (µg/m³)	TBA (µg/m³)	Carbon Dioxide [3] (%)	Carbon Monoxide [3] (%)	Methane [3] (%)	Oxygen [3] (%)
TVW-1																										
TVW-1	5	10/25/07	30	19	62,000,000	5,100	<1,400	11,000	--	31,000	<1,600	--	--	--	--	--	--	<4,300	--	<1,300	--	--	4.6	--	3.0	3.0
TVW-1 Duplicate	5	10/25/07	30	16	37,000,000	12,000	3,100	36,000	--	140,000	9,100	--	--	--	--	--	--	<3,500	--	<1,100	--	--	6.8	--	6.7	1.5
TVW-2																										
TVW-2	5	10/25/07	30	5	120,000,000	210,000	340,000	170,000	--	260,000	91,000	--	--	--	--	--	--	<23,000	--	43,000	--	--	10	--	0.53	1.2
TVW-3																										
TVW-3	5	10/25/07	30	5	160,000,000	1,600,000	5,500,000	670,000	--	2,000,000	570,000	--	--	--	--	--	--	<98,000	--	230,000	--	--	14	--	0.99	1.1
TVW-3 Duplicate	5	10/25/07	30	5	160,000,000	1,400,000	5,300,000	650,000	--	1,900,000	530,000	--	--	--	--	--	--	<100,000	--	210,000	--	--	14	--	0.98	1.2
SS-1																										
SS-1	0.5	09/18/09	30	5	560	<2.6	<3.0	<3.5	--	<3.5	<3.5	<3.2	<4.8	<4.8	<6.2	<13	<6.1	<7.9	<13	<2.9	<13	<9.8	5.9	--	<0.00016	13
SS-1Shroud	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3,800,000	--	--	--	--	--	--	--	--
SS-2																										
SS-2	0.5	09/18/09	30	8	180,000,000	1,500,000	4,500,000	240,000	--	1,800,000	500,000	<37,000	<55,000	<55,000	<70,000	<150,000	<69,000	<90,000	<150,000	59,000	<150,000	<110,000	13	--	1.1	1.2
SS-2 DUP	0.5	09/18/09	30	8	180,000,000	1,500,000	4,600,000	240,000	--	1,900,000	540,000	<37,000	<55,000	<55,000	<70,000	<150,000	<69,000	<90,000	<150,000	65,000	<150,000	<110,000	13	--	1.1	1.4
SS-2Shroud	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2,300,000	--	--	--	--	--	--	--	--
Trip Blank	--	09/18/09	--	--	<100	<1.6	<1.9	<2.2	--	<2.2	<2.2	<2.0	<3.0	<3.0	<3.8	<8.4	<3.8	<4.9	<8.4	<1.8	<8.4	<6.1	<0.010	--	<0.00010	<0.10
CRWQCB ESLS (Residential):					10,000	84	63,000	980	21,000	21,000	21,000	94	22,000	220	4.1	--	--	--	--	9,400	--	--	--	--	--	--
CRWQCB ESLS (Commercial):					29,000	280	180,000	3,300	58,000	58,000	58,000	310	61,000	740	14	--	--	--	--	31,000	--	--	--	--	--	--

Notes:

--	Not analyzed/applicable/measured	µg/L	Micrograms per liter	EDB	Ethylene dibromide
%	Percent	µg/m³	Micrograms per cubic meter	EPA	Environmental Protection Agency
<	Indicates less than laboratory reporting limits	1,2-DCA	1,2-Dichloroethane	ETBE	Ethyl tertiary butyl ether
bgs	Below ground surface	CRWQCB	California Regional Water Quality Control Board	ESL	Environmental screening level
inHg	Inches of mercury				

MTBE	Methyl tertiary butyl ether				
TAME	Tertiary amyl methyl ether				
TBA	Tertiary butyl alcohol				
TPPH	Total purgeable petroleum hydrocarbons				

1 Analyzed using EPA Method TO-3.
2 Analyzed using EPA Method TO-15. Samples collected on 9/18/2009 were analyzed by EPA Method TO-14A; except for *SS-1shroud* and *SS-2shroud* samples, which were analyzed by EPA Method TO-15.
3 Analyzed using ASTM D1946.

TABLE 1
HISTORICAL SOIL ANALYTICAL DATA

76 Service Station No. 3816
101 South Mayfair Avenue
Daly City, California

Sample Name	Sample Depth (feet, bgs)	Date Sampled	TOG [1] (mg/kg)	TEPHd [2] (mg/kg)	TPHmo [2] (mg/kg)	TPPH [3] (mg/kg)	BTEX [4] Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	1,2-DCA [5] (mg/kg)	DIPE [5] (mg/kg)	EDB [5] (mg/kg)	ETBE [5] (mg/kg)	Ethanol [5] (mg/kg)	MTBE [4] (mg/kg)	TAME [5] (mg/kg)	TBA [5] (mg/kg)	Metals [6] Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
Excavation Soil Samples																							
WO1(11)	11	04/13/93 a	<50	1.6	--	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	0.68	47	2.6	27	19
WO1(15.5)	15	04/13/93	<50	--	--	1.4	0.012	0.027	0.0099	0.082	--	--	--	--	--	--	--	--	--	--	--	--	--
WO(SW1)	8	04/13/93	22,000	--	--	1,000	3.2	13	16	91	--	--	--	--	--	--	--	--	--	--	--	--	--
WO(SW2)	8	04/13/93	<50	--	--	<1.0	0.0062	0.010	0.0053	0.032	--	--	--	--	--	--	--	--	--	--	--	--	--
WO(SW3)	8	04/13/93	<50	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--
WOSW1(3)	8	04/20/93	7,800	--	--	710	1.9	7.1	13	53	--	--	--	--	--	--	--	--	--	--	--	--	--
S-12-T1N	12	06/03/98 b	--	--	--	3,800	<2	2.1	28	130	--	--	--	--	--	<10	--	--	--	--	5.2	--	--
S-12-T1S	12	06/03/98	--	--	--	1.3	0.0035	0.017	0.010	0.095	--	--	--	--	--	0.3	--	--	--	--	--	--	--
S-12-T2N	12	06/03/98	--	--	--	<0.2	<0.001	<0.001	<0.001	<0.002	--	--	--	--	--	0.015	--	--	--	--	--	--	--
S-12-T2S	12	06/03/98	--	--	--	4	0.083	0.53	0.098	0.93	--	--	--	--	--	0.29	--	--	--	--	--	--	--
S-17-T1N	17	06/05/98	--	--	--	29	0.15	0.35	<0.1	0.6	--	--	--	--	--	0.51	--	--	--	--	--	--	--
S-17-T1M	17	06/05/98	--	--	--	14	0.1	0.27	0.067	0.55	--	--	--	--	--	0.39	--	--	--	--	--	--	--
S-17-T1S	17	06/05/98	--	--	--	220 c	0.017	0.31	0.6	4.4	--	--	--	--	--	0.34	--	--	--	--	--	--	--
S-17-T2N	17	06/05/98	--	--	--	3,700	13	86	44	280	--	--	--	--	--	12	--	--	--	--	--	--	--
S-17-T2M	17	06/05/98	--	--	--	10,000	37	240	130	830	--	--	--	--	--	26	--	--	--	--	--	--	--
S-17-T2S	17	06/05/98	--	--	--	5,800	13	110	64	430	--	--	--	--	--	<25	--	--	--	--	--	--	--
S-21-TPN	21	06/05/98	--	--	--	0.23	<0.001	<0.001	<0.001	<0.002	--	--	--	--	--	0.0098	--	--	--	--	--	--	--
S-21-TPS	21	06/05/98	--	--	--	1.3	<0.001	0.0018	<0.001	<0.002	--	--	--	--	--	0.03	--	--	--	--	--	--	--
S-3.5-D1	3.5	07/27/98	--	--	--	<1.0	0.16	0.68	0.35	2.5	--	--	--	--	--	45 d	--	--	--	--	--	--	--
S-3.5-D2	3.5	07/27/98	--	--	--	430	67	270	110	290	--	--	--	--	--	22	--	--	--	--	<5.0	--	--
S-3.5-D3	3.5	07/27/98	--	--	--	<1.0	0.15	0.94	0.30	2.2	--	--	--	--	--	11	--	--	--	--	--	--	--
S-3.5-D4	3.5	07/27/98	--	--	--	84	5.3	46	24	100	--	--	--	--	--	9.8	--	--	--	--	--	--	--
S-3.5-PL1	3.5	07/27/98	--	--	--	<1.0	0.0060	0.022	0.0090	0.047	--	--	--	--	--	0.10	--	--	--	--	--	--	--
S-3.5-PL2	3.5	07/27/98	--	--	--	<1.0	<0.0050	<0.0050	0.0085	0.061	--	--	--	--	--	0.086	--	--	--	--	--	--	--
EX-1	13	11/26/08 h,i	--	<2	<4	<0.1	<0.01	<0.01	<0.01	<0.015	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	<0.05	<1	20	2.1	23	15
Soil Borings																							
EB1																							
EB1(5)	5	04/18/94	--	--	--	41	<0.050	<0.050	0.34	0.40	--	--	--	--	--	--	--	--	--	--	--	--	--
EB1(10)	10	04/18/94	--	--	--	16	0.0090	0.011	0.075	0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
EB1(15)	15	04/18/94	--	--	--	2,000	3.8	17	29	170	--	--	--	--	--	--	--	--	--	--	--	--	--
EB1(19.5)	19.5	04/18/94	--	--	--	<1.0	0.0072	0.0098	0.0055	0.021	--	--	--	--	--	--	--	--	--	--	--	--	--
EB1(25)	25	04/18/94	--	--	--	<1.0	0.015	0.014	<0.005	0.016	--	--	--	--	--	--	--	--	--	--	--	--	--
EB1(30)	30	04/18/94	--	--	--	<1.0	0.017	0.022	<0.005	0.020	--	--	--	--	--	--	--	--	--	--	--	--	--
EB1(35)	35	04/18/94	--	--	--	2.9	0.40	0.50	0.049	0.33	--	--	--	--	--	--	--	--	--	--	--	--	--
EB1(40)	40	04/18/94	--	--	--	<1.0	0.015	0.011	<0.005	0.0083	--	--	--	--	--	--	--	--	--	--	--	--	--
EB 1(45)	45	04/18/94	--	--	--	<1.0	0.027	0.019	<0.005	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--
EB1(50)	50	04/18/94	--	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2																							
EB2(5)	5	09/19/91	--	--	--	<1.0	0.0052	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(10)	10	04/18/94	--	--	--	<1.0	0.0069	0.0078	<0.005	0.0081	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(15)	15	04/18/94	--	--	--	<1.0	0.013	0.022	<0.005	0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(20)	20	04/18/94	--	--	--	3,600	7.3	99	63	330	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(25)	25	04/18/94	--	--	--	<1.0	0.040	0.056	0.015	0.058	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(30)	30	04/18/94	--	--	--	<1.0	0.022	0.029	<0.005	0.017	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(35)	35	04/18/94	--	--	--	<1.0	0.013	0.017	<0.005	0.012	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(40)	40	04/18/94	--	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(45)	45	04/18/94	--	--	--	<1.0	<0.005	0.0087	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(50)	50	04/18/94	--	--	--	<1.0	<0.005	0.016	<0.005	0.020	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(55)	55	04/18/94	--	--	--	3.2	0.015	0.038	0.023	0.084	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(60)	60	04/18/94	--	--	--	<1.0	<0.005	0.0090	<0.005	0.0080	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(65)	65	04/18/94	--	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--
EB2(70)	70	04/18/94	--	--	--	<1.0	<0.005	<0.005	<0.005	<0.005	--	--	--	--	--	--	--	--	--	--	--	--	--

TABLE 1
HISTORICAL SOIL ANALYTICAL DATA

76 Service Station No. 3816
101 South Mayfair Avenue
Daly City, California

Sample Name	Sample Depth (feet, bgs)	Date Sampled	TOG [1] (mg/kg)	TEPHd [2] (mg/kg)	TPHmo [2] (mg/kg)	TPPH [3] (mg/kg)	BTEX [4]				1,2-DCA [5] (mg/kg)	DIPE [5] (mg/kg)	EDB [5] (mg/kg)	ETBE [5] (mg/kg)	Ethanol [5] (mg/kg)	MTBE [4] (mg/kg)	TAME [5] (mg/kg)	TBA [5] (mg/kg)	Metals [5]				
							Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)									Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
EB3																							
EB3(6)	6	05/09/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(10)	10	05/09/95	--	--	--	<1.0	0.028	0.011	<0.0050	0.021	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(15)	15	05/09/95	--	--	--	1.1	0.076	0.041	0.025	0.11	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(20)	20	05/09/95	--	--	--	1.6	0.11	0.16	0.033	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(25)	25	05/09/95	--	--	--	<1.0	0.015	0.024	0.0067	0.051	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(30)	30	05/09/95	--	--	--	2.1	0.13	0.23	0.041	0.29	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(35)	35	05/09/95	--	--	--	<1.0	0.037	0.12	0.020	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(40)	40	05/09/95	--	--	--	1.3	0.12	0.20	0.027	0.20	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(45)	45	05/09/95	--	--	--	<1.0	0.022	0.047	0.0081	0.074	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(50)	50	05/09/95	--	--	--	<1.0	0.0084	0.017	<0.0050	0.028	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(55)	55	05/09/95	--	--	--	<1.0	0.0061	0.0051	<0.0050	0.014	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(60)	60	05/09/95	--	--	--	<1.0	0.021	0.027	<0.0050	0.019	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(65)	65	05/09/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB3(70)	70	05/09/95	--	--	--	<1.0	0.0091	0.013	<0.0050	0.016	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5																							
EB5(5)	5	05/10/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(10)	10	05/10/95	--	--	--	<1.0	<0.0050	0.011	<0.0050	0.0080	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(15)	15	05/10/95	--	--	--	150,000	620	12,000	3,700	19,000	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(20)	20	05/10/95	--	--	--	<1.0	0.019	0.032	0.013	0.048	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(25)	25	05/10/95	--	--	--	<1.0	0.021	0.035	0.012	0.037	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(30)	30	05/10/95	--	--	--	<1.0	0.023	0.039	0.013	0.049	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(35)	35	05/10/95	--	--	--	1.2	0.062	0.11	0.015	0.096	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(40)	40	05/10/95	--	--	--	1.3	0.16	0.18	0.026	0.14	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(45)	45	05/10/95	--	--	--	2.4	0.27	0.30	0.044	0.28	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(50)	50	05/10/95	--	--	--	<1.0	0.032	0.029	<0.0050	0.033	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(55)	55	05/10/95	--	--	--	<1.0	0.015	0.020	<0.0050	0.016	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(60)	60	05/10/95	--	--	--	<1.0	0.012	0.019	<0.0050	0.010	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(65)	65	05/10/95	--	--	--	<1.0	<0.0050	0.012	<0.0050	0.0084	--	--	--	--	--	--	--	--	--	--	--	--	--
EB5(70)	70	05/10/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB7																							
EB7(5)	5	05/09/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB7(10)	10	05/09/95	--	--	--	<1.0	0.030	0.044	<0.0050	0.024	--	--	--	--	--	--	--	--	--	--	--	--	--
EB7(15)	15	05/09/95	--	--	--	<1.0	0.0093	0.029	0.0051	0.032	--	--	--	--	--	--	--	--	--	--	--	--	--
EB7(20)	20	05/09/95	--	--	--	<1.0	<0.0050	0.020	0.0059	0.030	--	--	--	--	--	--	--	--	--	--	--	--	--
EB7(25)	25	05/09/95	--	--	--	<1.0	0.0063	0.026	0.0060	0.036	--	--	--	--	--	--	--	--	--	--	--	--	--
EB7(30)	30	05/09/95	--	--	--	<1.0	0.068	0.12	0.011	0.064	--	--	--	--	--	--	--	--	--	--	--	--	--
EB7(35)	35	05/09/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB7(40)	40	05/09/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9																							
EB9(5)	5	05/10/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(10)	10	05/10/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(15)	15	05/10/95	--	--	--	<1.0	<0.0050	0.0097	<0.0050	0.024	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(20)	20	05/10/95	--	--	--	<1.0	0.011	0.014	<0.0050	0.027	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(25)	25	05/10/95	--	--	--	<1.0	0.016	0.026	0.0092	0.051	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(30)	30	05/10/95	--	--	--	<1.0	0.010	0.017	0.0052	0.027	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(35)	35	05/10/95	--	--	--	<1.0	0.053	0.057	0.0097	0.056	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(40)	40	05/10/95	--	--	--	<1.0	0.067	0.056	0.0080	0.052	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(45)	45	05/10/95	--	--	--	<1.0	0.048	0.037	<0.0050	0.041	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(50)	50	05/10/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(55)	55	05/10/95	--	--	--	<1.0	<0.0050	0.0083	<0.0050	0.0094	--	--	--	--	--	--	--	--	--	--	--	--	--
EB9(60)	60	05/10/95	--	--	--	<1.0	<0.0050	0.0087	<0.0050	0.0090	--	--	--	--	--	--	--	--	--	--	--	--	--
B10																							
S-21.0-B10	21	08/20/99	--	--	--	1.6	0.078	0.16	0.031	0.23	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-26.0-B10	26	08/20/99	--	--	--	25	0.67	1.8	0.50	3.2	--	--	--	--	--	<0.50	--	--	--	--	--	--	--
S-41.0-B10	41	08/20/99	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	0.038	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-45.5-B10	45.5	08/20/99	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
B11																							
S-20.5-B11	20.5	08/24/99	--	--	--	5,900	62	290	120	680	--	--	--	--	--	<25	--	--	--	--	--	--	--
S-56.0-B11	56	08/24/99	--	--	--	<1.0	0.0052	0.0084	<0.0050	0.011	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-61.0-B11	61	08/24/99	--	--	--	<1.0	0.019	0.021	0.0063	0.028	--	--	--	--	--	<0.050	--	--	--	--	--	--	--

TABLE 1
HISTORICAL SOIL ANALYTICAL DATA

76 Service Station No. 3816
101 South Mayfair Avenue
Daly City, California

Sample Name	Sample Depth (feet, bgs)	Date Sampled	TOG [1] (mg/kg)	TEPHd [2] (mg/kg)	TPHmo [2] (mg/kg)	TPPH [3] (mg/kg)	BTEX [4]				1,2-DCA [5] (mg/kg)	DIPE [5] (mg/kg)	EDB [5] (mg/kg)	ETBE [5] (mg/kg)	Ethanol [5] (mg/kg)	MTBE [4] (mg/kg)	TAME [5] (mg/kg)	TBA [5] (mg/kg)	Metals [6]				
							Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)									Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
B12																							
S-21.5-B12	21.5	08/20/99	--	--	--	3.8	0.13	0.33	0.065	0.47	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-56.5-B12	56.5	08/20/99	--	--	--	1.2	0.12	0.13	0.015	0.16	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-61.5-B12	61.5	08/20/99	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	0.011	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
B13																							
S-21.5-B13	21.5	08/20/99	--	--	--	1.2	0.0066	0.025	<0.0050	0.09	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-26.5-B13	26.5	08/20/99	--	--	--	190	0.57	6.0	3.8	26	--	--	--	--	--	<2.5	--	--	--	--	--	--	--
S-51.0-B13	51	08/20/99	--	--	--	<1.0	0.10	0.11	0.011	0.11	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-56.0-B13	56	08/20/99	--	--	--	1.0	0.16	0.035	<0.0050	0.11	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-61.5-B13	61.5	08/20/99	--	--	--	<1.0	0.028	0.018	<0.0050	0.047	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
B14																							
S-21.0-B14	21	08/19/99	--	--	--	380	4.3	12	5.4	37	--	--	--	--	--	<5.0	--	--	--	--	--	--	--
S-56.0-B14	56	08/19/99	--	--	--	1.1	0.13	0.13	0.018	0.15	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
S-61.5-B14	61.5	08/19/99	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.050	--	--	--	--	--	--	--
B15																							
S-21.0-B15	21	08/19/99	--	1.7 e	--	4.7	0.25	0.50	0.092	0.67	--	--	--	--	--	1.7	--	--	--	--	--	--	--
S-56.0-B15	56	08/19/99	52	2.4 e	52	<1.0	<0.0050	0.0098	<0.0050	0.013	--	--	--	--	--	2.4	--	--	--	--	--	--	--
S-61.0-B15	61	08/19/99	--	1.3 e	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	1.3	--	--	--	--	--	--	--
S-66.0-B15	66	08/19/99	--	2.4 f	--	<1.0	<0.0050	<0.0050	<0.0050	0.0096	--	--	--	--	--	2.4	--	--	--	--	--	--	--
B-16																							
B-16-14	14-14.5	12/18/03	--	--	--	<1.0	0.0068	0.024	<0.0050	0.012	--	--	--	--	--	0.0095	--	--	--	--	--	--	--
B-16-19	19-19.5	12/18/03	--	--	--	<1.0	<0.0050	0.0085	<0.0050	0.0059	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-16-39	39-39.5	12/18/03	--	--	--	<1.0	0.0084	0.018	<0.0050	0.019	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-16-79	79-79.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-16-94	94-94.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-18																							
B-18-13	13-13.5	12/17/03	--	--	--	<1.0	<0.0050	0.017	<0.0050	0.033	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-18-18.5	18.5-19	12/17/03	--	--	--	63	<0.50	1.7	0.65	3.5	--	--	--	--	--	<0.50	--	--	--	--	--	--	--
B-18-40	40-40.5	12/17/03	--	--	--	<1.0	0.016	0.047	0.0084	0.064	--	--	--	--	--	0.017	--	--	--	--	--	--	--
B-18-78.5	78.5-79	12/17/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-18-96.5	96.5-97	12/17/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-19																							
B-19-14	14-14.5	12/17/03	--	--	--	<1.0	<0.0050	0.021	0.0065	0.034	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-19-19	19-19.5	12/17/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-19-34	34-34.5	12/17/03	--	--	--	1.5	0.092	0.27	0.032	0.24	--	--	--	--	--	0.025	--	--	--	--	--	--	--
B-19-74	74-74.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-19-89	89-89.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20																							
B-20-5	5-5.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-9	9.5-10	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-14	14-14.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-19	19-19.5	12/18/03	--	--	--	<1.0	0.014	0.031	0.0082	0.045	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-29	29.5-30	12/18/03	--	--	--	<1.0	0.0080	0.019	<0.0050	0.027	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-34	34-34.5	12/18/03	--	--	--	<1.0	0.044	0.067	0.015	0.095	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-39	39-39.5	12/18/03	--	--	--	<1.0	0.084	0.075	0.020	0.11	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-44	44-44.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	0.013	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-49	49-49.5	12/18/03	--	--	--	<1.0	0.0055	<0.0050	<0.0050	0.005	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-54	54-54.5	12/18/03	--	--	--	<1.0	0.055	<0.0050	0.0090	0.05	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-59	59-59.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-64	64-64.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-71	71-71.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-75	75-75.5	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-80	80	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
B-20-85	85	12/18/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
MW-1																							
MW-1-14.5	14.5-15	12/15/03	--	--	--	9,100	20	220	89	540	--	--	--	--	--	<10	--	--	--	--	7.1	--	--
MW-1-21.5	21.5-22	12/15/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	0.0081	--	--	--	--	--	--	--
MW-1-35	35-35.5	12/15/03	--	--	--	1.2	0.11	0.058	0.031	0.17	--	--	--	--	--	0.072	--	--	--	--	--	--	--
MW-1-53	53-53.5	12/15/03	--	--	--	<1.0	0.011	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
MW-1-80	80-80.5	12/15/03	--	--	--	<2.0	<0.010	<0.010	<0.010	<0.010	--	--	--	--	--	<0.010	--	--	--	--	--	--	--
MW-1-99.5	99.5-100	12/15/03	--	--	--	<2.0	<0.010	<0.010	<0.010	<0.010	--	--	--	--	--	<0.010	--	--	--	--	--	--	--

TABLE 1
HISTORICAL SOIL ANALYTICAL DATA

76 Service Station No. 3816
101 South Mayfair Avenue
Daly City, California

Sample Name	Sample Depth (feet, bgs)	Date Sampled	TOG [1] (mg/kg)	TEPHd [2] (mg/kg)	TPHmo [2] (mg/kg)	TPPH [3] (mg/kg)	BTEX [4]				1,2-DCA [5] (mg/kg)	DIPE [5] (mg/kg)	EDB [5] (mg/kg)	ETBE [5] (mg/kg)	Ethanol [5] (mg/kg)	MTBE [4] (mg/kg)	TAME [5] (mg/kg)	TBA [5] (mg/kg)	Metals [5]				
							Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)									Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
MW-1-169	169-169.5	12/16/03	--	--	--	<2.0	<0.010	<0.010	<0.010	<0.010	--	--	--	--	--	<0.010	--	--	--	--	--	--	--
MW-1-179	179-179.5	12/16/03	--	--	--	<2.0	<0.010	<0.010	<0.010	<0.010	--	--	--	--	--	<0.010	--	--	--	--	--	--	--
MW-1-189	189-189.5	12/16/03	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
WOB-1																							
WOB-1-8	8	12/08/10	<50	5.9 j	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	33	<2.5	29	19
WOB-1-11	11	12/08/10	<50	3.8 j	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	29	<2.5	29	19
WOB-1-15	15	12/08/10	<50	4.9 j	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	32	<2.5	30	17
WOB-1-20	20	12/08/10	<50	2.9 j	--	<0.20	<0.0050	<0.0050	<0.0050	0.012	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	26	<2.5	33	18
WOB-1-25	25	12/08/10	<50	2.4 j	--	0.23	<0.0050	0.0080	<0.0050	0.024	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	20	<2.5	25	16
WOB-1-26.5	26.5	12/08/10	<50	<2.0	--	<0.20	<0.0050	0.0070	<0.0050	0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	23	<2.5	27	19
WOB-2																							
WOB-2-8	8	12/08/10	<50	<2.0	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	27	<2.5	27	19
WOB-2-11	11	12/08/10	<50	2.8 j	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	22	<2.5	27	17
WOB-2-15	15	12/08/10	<50	5.6 j	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	32	<2.5	26	18
WOB-2-20	20	12/08/10	<50	2.6 j	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	24	<2.5	31	17
WOB-2-24.5	24.5	12/08/10	<50	<2.0	--	0.22	<0.0050	0.0076	<0.0050	0.022	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	20	<2.5	27	17
WOB-3																							
WOB-3-8	8	12/08/10	<50	2.7 j	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	36	<2.5	30	20
WOB-3-11	11	12/08/10	<50	2.5 j	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	34	<2.5	26	19
WOB-3-15	15	12/08/10	<50	<2.0	--	0.25	<0.0050	0.0065	<0.0050	0.021	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	22	<2.5	29	21
WOB-3-20	20	12/08/10	<50	<2.0	--	0.56	<0.0050	0.0070	<0.0050	0.017	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	19	<2.5	26	17
WOB-3-25	25	12/08/10	<50	<2.0	--	0.62	<0.0050	0.016	0.011	0.075	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	19	<2.5	29	17
WOB-3-29.5	29.5	12/08/10	<50	<2.0	--	0.32	<0.0050	0.013	0.0053	0.034	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	<0.50	18	<2.5	27	16
Remediation Wells																							
VE1																							
VE1(13)	13	05/11/95	--	--	--	490	<0.25	0.46	3.7	11	--	--	--	--	--	--	--	--	--	--	--	--	--
VE1(18)	18	05/11/95	--	--	--	1.3	0.032	0.13	0.025	0.15	--	--	--	--	--	--	--	--	--	--	--	--	--
EB4/VE2																							
VE2(5)	5	05/09/95	--	--	--	1.0	0.048	0.082	0.024	0.17	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(10)	10	05/09/95	--	--	--	<1.0	0.057	0.075	0.0089	0.055	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(15)	15	05/09/95	--	--	--	5,900	74	500	160	870	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(20)	20	05/09/95	--	--	--	4,200	36	270	86	490	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(25)	25	05/09/95	--	--	--	2.1	0.014	0.067	0.019	0.16	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(30)	30	05/09/95	--	--	--	<1.0	<0.0050	0.016	<0.0050	0.034	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(35)	35	05/09/95	--	--	--	3.4	0.27	0.54	0.060	0.38	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(40)	40	05/09/95	--	--	--	<1.0	<0.0050	0.0071	<0.0050	0.012	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(45)	45	05/09/95	--	--	--	<1.0	0.0063	0.011	<0.0050	0.0099	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(50)	50	05/09/95	--	--	--	<1.0	<0.0050	0.027	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(55)	55	05/09/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
VE2(60)	60	05/09/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
EB8/VE3																							
VE3(5)	5	05/10/95	--	--	--	<1.0	<0.0050	0.0063	<0.0050	0.0066	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(10)	10	05/10/95	--	--	--	<1.0	<0.0050	<0.0050	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(15)	15	05/10/95	--	--	--	1.9	0.16	0.26	0.038	0.21	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(20)	20	05/10/95	--	--	--	<1.0	0.016	0.054	0.017	0.084	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(25)	25	05/10/95	--	--	--	<1.0	<0.0050	0.051	0.017	0.098	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(30)	30	05/10/95	--	--	--	<1.0	<0.0050	0.031	0.0092	0.050	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(35)	35	05/10/95	--	--	--	3.1	0.28	0.61	0.075	0.46	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(40)	40	05/10/95	--	--	--	<1.0	<0.0050	0.024	0.0057	0.029	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(45)	45	05/10/95	--	--	--	<1.0	<0.0050	0.012	<0.0050	0.014	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(50)	50	05/10/95	--	--	--	<1.0	<0.0050	0.0057	<0.0050	<0.0050	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(55)	55	05/10/95	--	--	--	<1.0	<0.0050	0.0054	<0.0050	0.015	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(60)	60	05/10/95	--	--	--	<1.0	<0.0050	0.011	<0.0050	0.0087	--	--	--	--	--	--	--	--	--	--	--	--	--
VE3(65)	60	05/10/95	--	--	--	<1.0	<0.0050	0.012	<0.0050	0.0096	--	--	--	--	--	--	--	--	--	--	--	--	--
VE-1A																							
VE-1A@14.5	14.5	07/07/06	--	--	--	1,900	<1.0 g	6.9	27	130	--	--	--	--	--	<1.0 g	--	--	--	--	--	--	--
VE-1A@19.5	19.5	07/07/06	--	--	--	2,400	<1.0 g	9.0	36	170	--	--	--	--	--	<1.0 g	--	--	--	--	--	--	--
VE-1A@24.5	24.5	07/07/06	--	--	--	0.50	0.0085	0.0073	<0.0050	0.21	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--

TABLE 1
HISTORICAL SOIL ANALYTICAL DATA

76 Service Station No. 3816
101 South Mayfair Avenue
Daly City, California

Sample Name	Sample Depth (feet, bgs)	Date Sampled	TOG [1] (mg/kg)	TEPHd [2] (mg/kg)	TPHmo [2] (mg/kg)	TPPH [3] (mg/kg)	BTEX [4] Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	1,2-DCA [5] (mg/kg)	DIPE [5] (mg/kg)	EDB [5] (mg/kg)	ETBE [5] (mg/kg)	Ethanol [5] (mg/kg)	MTBE [4] (mg/kg)	TAME [5] (mg/kg)	TBA [5] (mg/kg)	Metals [6] Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)
VE-4																							
VE-4@9.5	9.5	07/07/06	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	--	--	--	--	--	<0.0050	--	--	--	--	--	--	--
VE-4@14.5	14.5	07/07/06	--	--	--	**5.8**	**0.11**	**0.28**	**0.099**	**0.52**	--	--	--	--	--	**0.031**	--	--	--	--	--	--	--
VE-4@24.5	24.5	07/07/06	--	--	--	**0.65**	**0.035**	**0.083**	**0.011**	**0.082**	--	--	--	--	--	**0.033**	--	--	--	--	--	--	--
VE-5																							
VE-5-15	15	03/25/08	--	--	--	**3.3** g	**0.22**	**0.44** g	**0.19**	**0.95**	**0.039**	<0.0050	**0.026**	<0.0050	<1.0	**0.49**	<0.0050	**0.086**	--	--	--	--	--
VE-5-17	17	03/25/08 g	--	--	--	**18**	**0.57**	**1.5**	**0.36**	**1.8**	<0.25	<0.25	<0.25	<0.25	<50	**0.48**	<0.25	<2.5	--	--	--	--	--
VE-5-20	20	03/25/08	--	--	--	**0.37**	<0.0050	**0.012**	**0.0055**	**0.038**	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.037**	<0.0050	**0.068**	--	--	--	--	--
VE-6																							
VE-6-15	15	03/25/08	--	--	--	**2.3**	**0.081**	**0.35**	**0.085**	**0.42**	**0.0062**	<0.0050	**0.020**	<0.0050	<1.0	**0.42** g	<0.0050	**0.27**	--	--	--	--	--
VE-6-17	17	03/25/08	--	--	--	**0.76**	**0.0058**	**0.025**	**0.013**	**0.094**	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.031**	<0.0050	**0.11**	--	--	--	--	--
VE-6-20	20	03/25/08	--	--	--	**0.35**	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.017**	<0.0050	**0.16**	--	--	--	--	--
VE-7																							
VE-7-12	12	12/03/10	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
VE-7-14	14	12/03/10	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
VE-7-15	15	12/03/10	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
VE-7-16	16	12/03/10	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
VE-7-17	17	12/03/10	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
VE-7-19.5	19.5	12/03/10	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
VE-7-24.5	24.5	12/03/10	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
Piezometers																							
PZ-1																							
PZ-1@6-6.5'	6-6.5	10/01/07	--	--	--	**0.35**	<0.0050	**0.018**	**0.0096**	**0.057**	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
PZ-1@9.5-10'	9.5-10	10/01/07	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
PZ-1@14-14.5'	14-14.5	10/01/07	--	--	--	**0.21**	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
PZ-1@19.5-20'	19.5-20	10/01/07	--	--	--	**0.24**	<0.0050	**0.019**	<0.0050	**0.026**	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.0072**	<0.0050	<0.050	--	--	--	--	--
PZ-2																							
PZ-2@6.5-7'	6.5-7	10/01/07	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
PZ-2@9.5-10'	9.5-10	10/01/07	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
PZ-2@14.5-15'	14-14.5	10/01/07	--	--	--	**2,500**	<2.5	**13**	**21**	**110**	<2.5	<2.5	<2.5	<2.5	<500	<2.5	<2.5	<25	--	--	--	--	--
PZ-2@19.5-20'	19.5-20	10/01/07	--	--	--	**0.21**	<0.0050	**0.016**	<0.0050	**0.020**	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.010**	<0.0050	<0.050	--	--	--	--	--
PZ-3																							
PZ-3@6-6.5'	6-6.5	10/01/07	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
PZ-3@9.5-10'	9.5-10	10/01/07	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
PZ-3@14.5-15'	14-14.5	10/01/07	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
PZ-3@19.5-20'	19.5-20	10/01/07	--	--	--	**3.5**	**0.34**	**0.75**	**0.20**	**1.2**	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	<0.0050	<0.0050	<0.050	--	--	--	--	--
Vapor Wells																							
TVW-1																							
TVW-1@5'	5	09/27/07	--	--	--	<0.20	<0.0050	<0.0050	<0.0050	<0.010	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.0060**	<0.0050	<0.050	--	--	--	--	--
TVW-2																							
TVW-2@5'	5	09/27/07	--	--	--	**0.29**	<0.0050	**0.0058**	<0.0050	**0.012**	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.025**	<0.0050	<0.050	--	--	--	--	--
TVW-3																							
TVW-3@5'	5	09/27/07	--	--	--	**0.55**	<0.0050	**0.014**	<0.0050	**0.037**	<0.0050	<0.0050	<0.0050	<0.0050	<1.0	**0.40**	<0.0050	**0.91**	--	--	--	--	--
Residential CRWQCB ESLs *																							
Shallow Soil (depth bgs ≤9.8 feet)			**370**	**83**	**370**	**83**	**0.044**	**2.9**	**2.3**	**2.3**	**0.0045** ◊	--	**0.00033** ◊	--	--	**0.023**	--	**0.075**	**1.7**	--	**200**	**150**	**600**
Deep Soil (depth bgs >9.8 feet)			**5,000**	**83**	**5,000**	**83**	**0.044**	**2.9**	**3.3**	**2.3**	**0.0045** ◊	--	**0.00033** ◊	--	--	**0.023**	--	**0.075**	**39**	**2,500**	**750**	**260**	**2500**

Notes:

--	Not analyzed/applicable/measured	CRWQCB	California Regional Water Quality Control Board	MTBE	Methyl tertiary butyl ether	TOG	Total oil and grease
<	Indicates less than laboratory reporting limits	DIPE	Di-isopropyl ether	PQL	Practical quantitation limit	TPHmo	Total petroleum hydrocarbons as motor oil
bgs	Below ground surface	EDB	Ethylene di-bromide	TAME	Tertiary amyl methyl ether	TPPH	Total purgeable petroleum hydrocarbons
mg/kg	Milligrams per kilogram	EPA	Environmental Protection Agency	TBA	Tertiary butyl alcohol	VOCs	Volatile organic compounds
1,2-DCA	1,2-dichloroethane	ETBE	Ethyl tertiary butyl ether	TEPHd	Total petroleum hydrocarbons as diesel		

1 Analyzed by EPA Method 5520 E&F for samples collected between 04/13/93 and 08/19/99; and by EPA Method 1664 for samples collected on 12/08/10.
2 Analyzed by EPA Method 8015
3 Analyzed by EPA Method 8015 for samples collected between 04/13/93 and 08/24/99; and by EPA Method 8260 between 12/15/03 and 12/08/10.

TABLE 1
HISTORICAL SOIL ANALYTICAL DATA

76 Service Station No. 3816
101 South Mayfair Avenue
Daly City, California

Sample Name	Sample Depth (feet, bgs)	Date Sampled	TOG [1] (mg/kg)	TEPHd [2] (mg/kg)	TPHmo [2] (mg/kg)	TPPH [3] (mg/kg)	BTEX [4]				1,2-DCA [5] (mg/kg)	DIPE [5] (mg/kg)	EDB [5] (mg/kg)	ETBE [5] (mg/kg)	Ethanol [5] (mg/kg)	MTBE [4] (mg/kg)	TAME [5] (mg/kg)	TBA [5] (mg/kg)	Metals [5]				
							Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)									Cadmium (mg/kg)	Chromium (mg/kg)	Lead (mg/kg)	Nickel (mg/kg)	Zinc (mg/kg)

4 Analyzed by EPA Method 8020 for samples collected between 04/13/93 and 08/24/99; and by EPA Method 8260 between 12/15/03 and 12/08/10.
5 Analytical method was not identified for the sample collected on 04/13/93; analyzed by EPA Method 6010 for samples collected between 06/03/98 and 12/08/10.

* Groundwater used as current or potential drinking water resource.
◊ The standard laboratory PQL is greater than the CRWQCB ESL. This PQL is the lowest concentration that the laboratory can provide under EPA Method 8260B.

a The sample was additionally analyzed for the presence of HVOCs by EPA Method 8010. The sample was reported as non-detect for HVOCs.
b The sample was analyzed outside of the EPA recommended holding time.
c Analytical result was from a re-analysis performed at a secondary dilution. The re-analysis was performed outside of the EPA recommended holding time.
d Analytical result for MTBE was confirmed by EPA Method 8260 at 44 mg/kg.
e Chromatogram pattern: unidentified hydrocarbons >C16.
f Chromatogram pattern: inidentified hydrocarbons C9-C24.
g The PQLs were raised due to sample dilution.
h The sample was analyzed for the presence of additonal VOCs by EPA Method 8260B. The additional VOCs were reported as non-detect.
i The sample was additionally analyzed for the presence of SVOCs by EPA Method 8270. The sample was reported as non-detect for SVOCs.
j The chromatogram pattern was atypical of diesel.