

RO-2522



ENVIRONMENTAL MANAGEMENT, INC.

Alameda County

FEB 18 2003

Environmental Health

February 7, 2003
KHM Project C81-6750 Santa Rita

Ms. Danielle Stefani
Hazardous Materials Coordinator
Livermore-Pleasanton Fire Department
3560 Nevada Street
Pleasanton, CA 94566

**Re: Site Assessment Report
Shell Service Station
6750 Santa Rita Road
Pleasanton, California**

Dear Ms. Stefani

KHM Environmental Management, Inc. (KHM) on behalf of Equilon Enterprises LLC dba Shell Oil Products US (SHELL) has prepared this Site Assessment Report for the above referenced site (Figure 1). The Groundwater Assessment Program (GRASP) activities initiated at the above referenced site on October 8, 2002, revealed detectable concentrations of petroleum hydrocarbons in the groundwater.

BACKGROUND

GRASP is a voluntary initiative by SHELL to install groundwater monitoring wells at numerous retail service stations nationwide that do not have any active release cases but have been identified to be in close proximity to one or more public water supply wells. The purpose of this program is to proactively monitor the groundwater beneath these sites and, in the event of a subsurface release, to respond quickly to protect public wells from this impact.

GRASP WELL INSTALLATION

On October 8 and 9, 2002, KHM Environmental (KHM) supervised the drilling and installation of four groundwater monitoring wells (MW-1 through MW-4). Well locations are shown on Figure 2. KHM obtained a well permit from the Zone 7 Water Agency to install these wells (Appendix A). Well construction details are displayed in the boring logs presented in Appendix B. Well development sheets are included in Appendix C. Site survey data is included as Appendix D.

ANALYTICAL FINDINGS

Soil samples were taken during the drilling of site wells. Soil samples with a photoionization detector (PID) reading greater than 10 parts per million were analyzed for the presence of petroleum hydrocarbons and fuel oxygenates. Soil analytical results are summarized in Table 1, and displayed within Figure 3. Certified analytical results and chain-of-custody documentation for soil are presented as Appendix E. After well development, on December 4, 2002, the monitoring wells were sampled and analyzed for chemical impacts. Groundwater analytical data is summarized in Table 2 and presented in Figure 4. A groundwater elevation contour map is presented as Figure 2. Well gauging data sheets are included in Appendix F. Certified analytical results and chain-of-custody documentation for groundwater are presented in Appendix G.

UNAUTHORIZED RELEASE REPORT

The previously submitted Unauthorized Release Report dated January 6, 2003 is included as Appendix H for your reference.

If you have any questions regarding this site, please contact Lee Dooley (KHM) at (408) 224-4724 or Lynn Walker (SHELL) at (925) 706-1559.

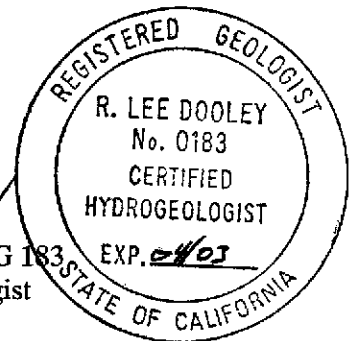
Sincerely,
KHM Environmental Management, Inc.



Debbie Arnold
Project Geologist



R. Lee Dooley, CHG 183
Senior Hydrogeologist



CC: Lynn Walker, Shell Oil Products US (PDF by email)
Karen Petryna, Shell Oil Products US (PDF by email)
Isabel Mejia, Shell Oil Products US
Chuck Headlee, RWQCB San Francisco Region
Donna Drogos, Alameda County Environmental Health Services

ATTACHMENTS:

- Table 1 – Soil Analytical Data
- Table 2 – Groundwater Gauging and Analytical Data
- Figure 1 – Site Location Map
- Figure 2 – Groundwater Elevation Contour Map
- Figure 3 – Hydrocarbon Distribution in Soil Map
- Figure 4 – Hydrocarbon Distribution in Groundwater Map
- Appendix A - Well Permit
- Appendix B – Boring Logs
- Appendix C – Well Development Field Data Sheets
- Appendix D – Site Survey Data
- Appendix E – Soil Laboratory Report and Chain-of-Custody Documentation
- Appendix F – Well Gauging Data
- Appendix G – Groundwater Laboratory Report and Chain-of-Custody Documentation
- Appendix H – Unauthorized Release Report

TABLE 1
SUMMARY OF SOIL ANALYTICAL DATA
 6750 Santa Rita Road
 Pleasanton, California

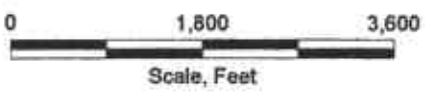
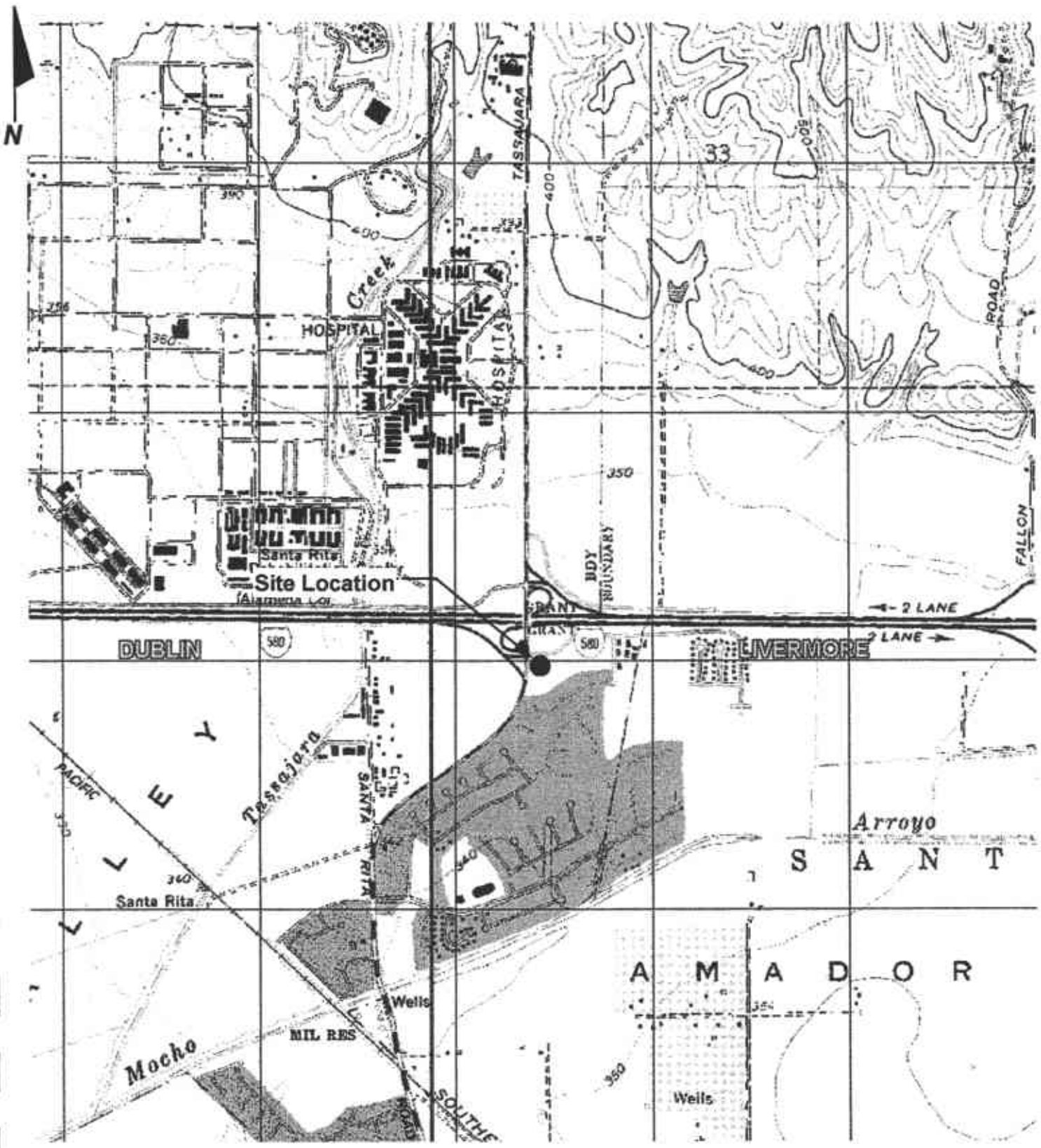
Sample I.D.	Sample Collection Date	TPH-G	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA
MW-2 20'	10/08/02	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	<0.5	<0.5	<0.5	<0.5
MW-3 20'	10/09/02	<1.0	<0.005	<0.005	<0.005	<0.005	<0.5	<0.5	<0.5	<0.5	<0.5

Notes:
 All data reported in milligrams per kilogram (mg/kg)
 TPH-g - Total Petroleum Hydrocarbons as gasoline
 MTBE - Methyl tert-butyl ether
 DIPE - Di-isopropyl ether
 ETBE - Ethyl tert-butyl ether
 TAME - Tert-amyl methyl ether
 TBA - Tert-Butanol
 <n = Below the detection limit
 TPH-g quantified using EPA Method 8260B
 BTEX Compounds, MTBE, DIPE, ETBE, TAME, and TBA analyzed using EPA Method 8260B

TABLE 2
GROUNDWATER GAUGING AND ANALYTICAL DATA
 6750 Santa Rita Road
 Pleasanton, California

Sample I.D.	Sample Date	TPH-G	TPH-D	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	DIPE	ETBE	TAME	TBA	TOC Elevation ¹ (feet)	Depth to GW (feet)	SPH Thickn. (feet)	GW Elev. ¹ (feet)
MW-1	12/20/02	<50	81	<0.50	<0.50	<0.50	<0.50	62	<2.0	<2.0	<2.0	<50	343.48	31.93	0.00	311.55
MW-2	12/20/02	<200	120	<2.0	<2.0	<2.0	<2.0	660	<2.0	<2.0	<2.0	<50	342.86	30.70	0.00	312.16
MW-3	12/20/02	<2000	72	<20	<20	<20	<20	8,000	<20	<20	<20	1,500	342.23	31.10	0.00	311.13
MW-4	12/20/02	<50	<50	<0.50	<0.50	<0.50	<0.50	93	<2.0	<2.0	<2.0	<50	343.44	32.20	0.00	311.24

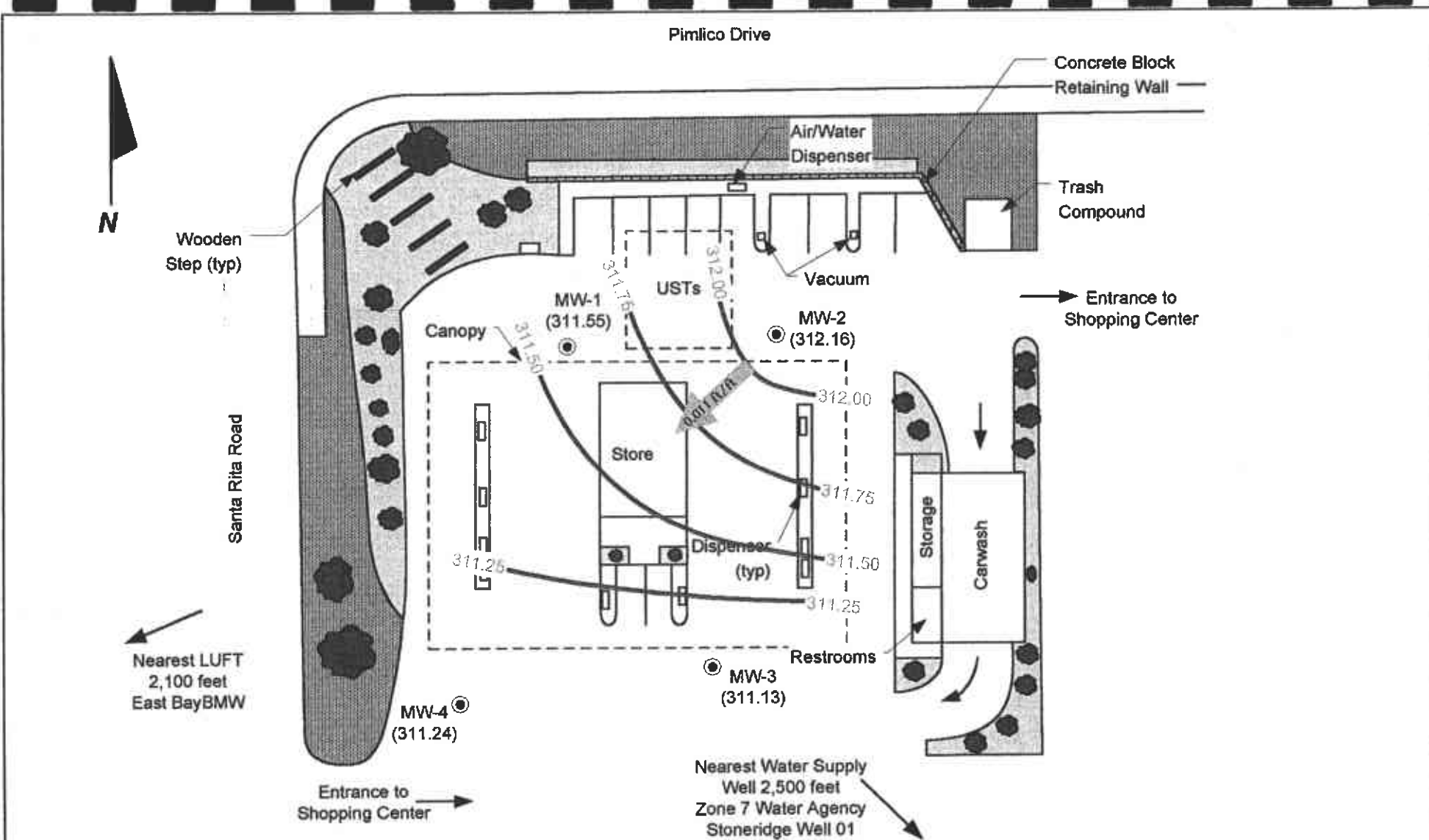
Notes:
 All data reported in micrograms per liter (µg/l)
 TOC = Top of well casing
 SPH = Separate-phase hydrocarbons
 TPH-G = Total Petroleum Hydrocarbons as Gasoline
 MTBE = Methyl tert-butyl ether
 DIPE = Di-isopropyl ether
 ETBE = Ethyl tert-butyl ether
 TAME = Tert-amyl methyl ether
 TBA = Tert-Butanol
 <n = Below the detection limit
 TPH-G quantified using EPA Method 8260B
 BTEX Compounds, MTBE, DIPE, ETBE, TAME, and TBA analyzed using EPA Method 8260B
¹TOC elevation and groundwater elevation relative to Mean Sea Level



Map Source: DeLorme, Yarmouth, ME 04096,
USGA Topo Map

KHM
ENVIRONMENTAL
MANAGEMENT,
INC.

SITE LOCATION MAP		
Shell Service Station 6750 Santa Rita Road Pleasanton, California		
DATE	PROJECT	FIGURE
11/25/02	C81-6750 Santa Rita	1



LEGEND

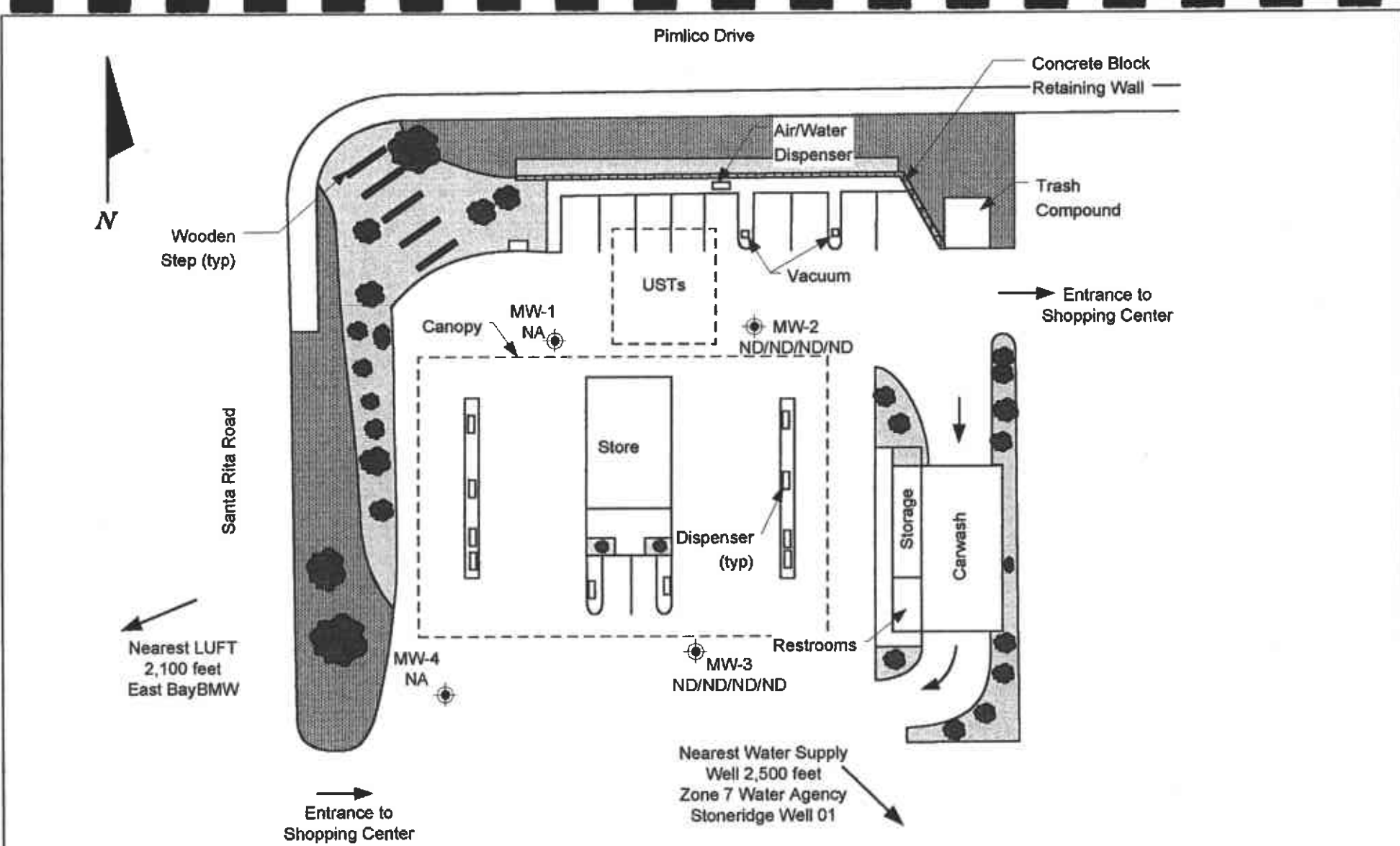
- MW-4 ● **GROUNDWATER MONITORING WELL**
(311.24) **GROUNDWATER ELEVATION (FEET-MSL), 12/20/02**
- 311.25 — **GROUNDWATER ELEVATION CONTOUR**
- 0.011 ft/ft ↘ **APPROXIMATE GROUNDWATER FLOW DIRECTION AND GRADIENT**
- **PLANTER**
- **GRASS**
- **SHRUB**

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INC.


**GROUNDWATER ELEVATION
CONTOUR MAP, DECEMBER 20, 2002**

Shell-branded Service Station
6750 Santa Rita Road
Pleasanton, California

DATE	01/03/09	PROJECT	C81-6750 Santa Rita	FIGURE	2
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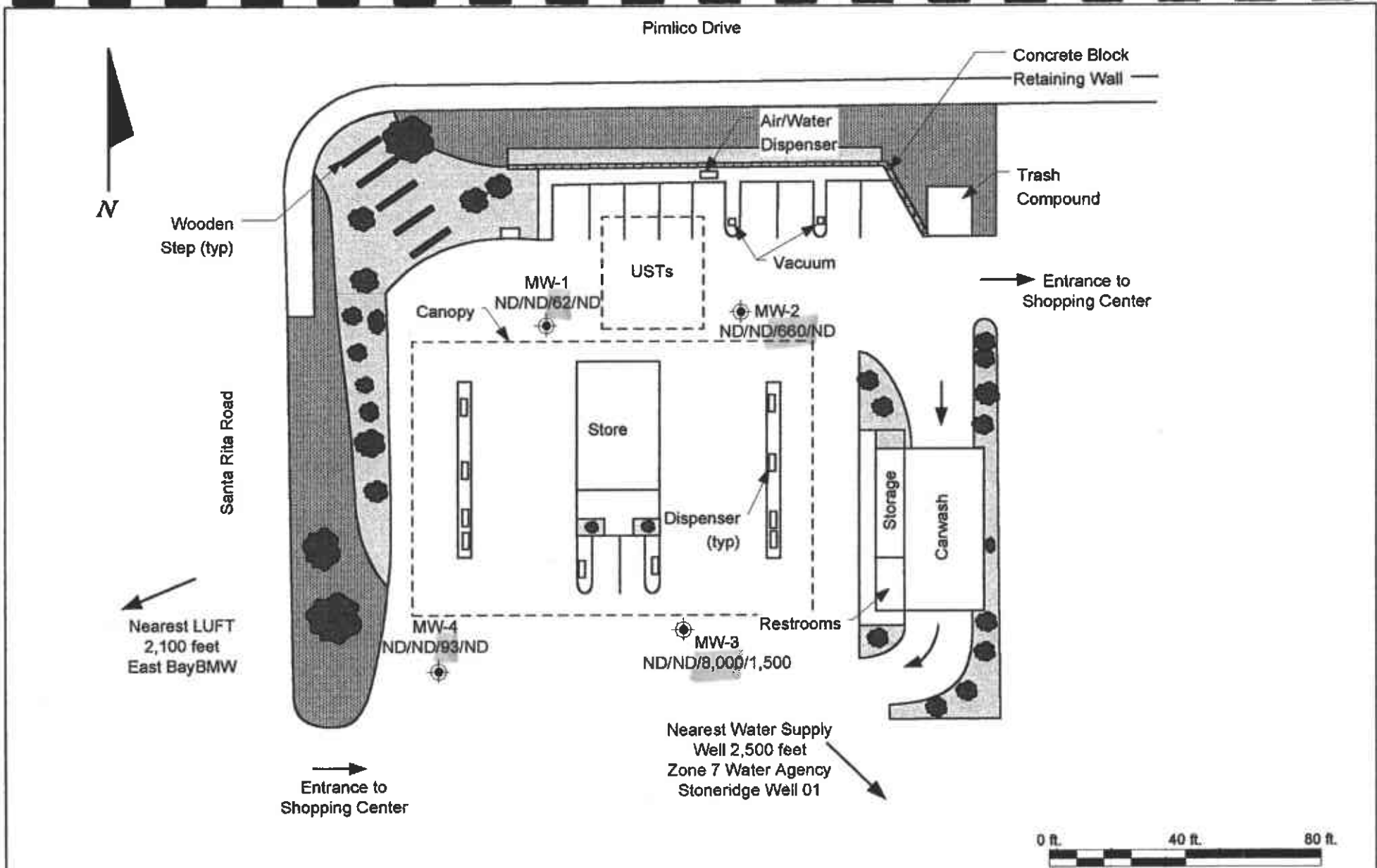


LEGEND


-  **GROUNDWATER MONITORING WELL**
- ND/ND/1.80/ND** **MAXIMUM CONCENTRATIONS OF TPH-G/BENZENE/MTBE/TBA IN SOIL SAMPLED ON OCTOBER 8 AND 9, 2002 (mg/kg)**
- ND** **NOT DETECTED AT LABORATORY LIMITS**
- NA** **NO SAMPLE ANALYZED**

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 MANAGEMENT,
 INC.

MAXIMUM HYDROCARBON CONCENTRATION DISTRIBUTION IN SOIL MAP		
Shell-branded Service Station 6750 Santa Rita Road Pleasanton, California		
DATE	PROJECT	FIGURE
02/05/03	C81-6750 Santa Rita	3



LEGEND

-  **GROUNDWATER MONITORING WELL**
- ND/ND/ 59/ND** **CONCENTRATIONS OF TPH-G/BENZENE/MTBE/TBA IN GROUNDWATER SAMPLED ON DECEMBER 20, 2002 (µg/l)**
- ND** **NOT DETECTED AT LABORATORY LIMITS**

KHM
 ENVIRONMENTAL
 MANAGEMENT,
 INC.

HYDROCARBON DISTRIBUTION IN GROUNDWATER MAP

Shell-branded Service Station
 6750 Santa Rita Road
 Pleasanton, California

DATE	02/05/03	PROJECT	C81-6750 Santa Rita	FIGURE	4
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APPENDIX A

WELL PERMIT

FROM : ZONE 7 WATER AGENCY

926 462 3914

2002.07-24

13:57

1957 P. 02/02



ZONE 7 WATER AGENCY

5697 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588-5127 VOICE (925) 484-2600 X235 FAX (925) 462-3914

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT 6750 Santa Rita Rd., Pleasanton

PERMIT NUMBER 22139
WELL NUMBER 3S/1E 4L1 to 4L4
APN _____

California Coordinates Source _____ Accuracy _____ ft.
CCN _____ R. DCE _____ ft.
APN 996-1101-37

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT Name Shell Oil Products U.S.
Address P.O. Box Phone _____
City Burbank Zip _____

- (A) GENERAL
 1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.
 2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers' Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
 3. Permit is void if project not begun within 90 days of approval date.
- B. WATER SUPPLY WELLS
 1. Minimum surface seal diameter is four inches greater than the well casing diameter.
 2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.
 3. Grout placed by tremie.
 4. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.
 5. A sample port is required on the discharge pipe near the wellhead.
- (C) GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
 1. Minimum surface seal diameter is four inches greater than the well or piezometer casing diameter.
 2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
 3. Grout placed by tremie.
- D. GEOTECHNICAL: Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tamped cement grout shall be used in place of compacted cuttings.
- E. CATHODIC: Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION: See attached.
- G. SPECIAL CONDITIONS: Submit to Zone 7 within 60 days after completion of permitted work the well installation report including all soil and water laboratory analysis results.

APPLICANT Name KHM Environmental Management Inc.
Address 6384 San Esteban Ave, E. Fremont Phone 408-224-4518
City San Jose Zip 95119

TYPE OF PROJECT:
Well Construction Geotechnical Investigation
Well Destruction Contamination Investigation
Cathodic Protection Other _____

PROPOSED WELL USE:
Domestic Irrigation
Municipal Remediation
Industrial Groundwater Monitoring
Dewatering Other _____

DRILLING METHOD:
Mud Rotary Air Rotary Hollow Stem Auger
Cable Tool Direct Push Other _____

DRILLING COMPANY Greco Drilling
DRILLER'S LICENSE NO. CS2485165

WELL SPECIFICATIONS:
Drill Hole Diameter 8 in. Maximum Depth 40 ft.
Casing Diameter 2 in. Number MW-1 TO MW-4
Surface Seal Depth 25 ft.

SOIL BORINGS:
Number of Borings _____ Maximum Depth _____ ft.
Hole Diameter _____ in.

ESTIMATED STARTING DATE 10/3/02
ESTIMATED COMPLETION DATE 10/18/02

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68

APPLICANT'S SIGNATURE Rey Fischer Date 9/23/02




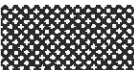




Approved Wyman Hong Date 10/2/02
Wyman Hong

ATTACH SITE PLAN OR SKETCH

APPENDIX B

BORING LOGS

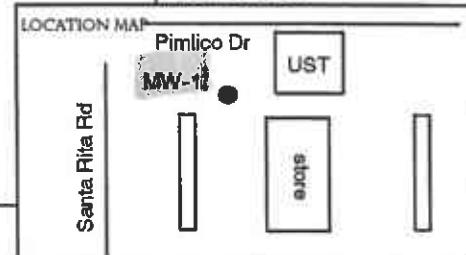
Boring Log Symbol Key

	First Encounter of Groundwater
	Stabilized Depth to Groundwater
	Asphalt
	Cement Grout
	Bentonite
	Sand
	Blank Casing
	Screened Casing



PROJECT NO: C81-6750 Santa Rita CLIENT: Shell OPUS
 LOGGED BY: J. Pearson LOCATION: 6750 Santa Rita Rd
 DRILLER: Gregg DATE DRILLED: 10/8/02
 DRILLING METHOD: HSA HOLE DIAMETER: 8"
 SAMPLING METHOD: Split Spoon HOLE DEPTH: 42.5'
 CASING TYPE PVC WELL DIAMETER: 2'
 SLOT SIZE: 0.010 WELL DEPTH: 42'
 GRAVEL PACK: 2-12 CASING STICKUP: NA

BORING/WELL NO: MW-1
 PAGE 1 OF 2



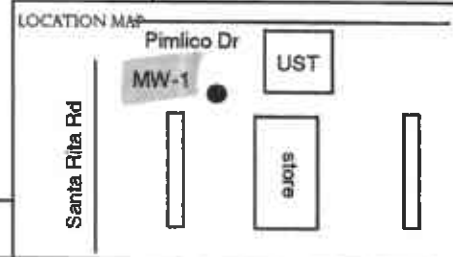
ELEVATION NORTHING EASTING

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
Concrete (grid)	Casing	Moist	0.7 5.9	Air Knifed	3 3 5	1	AF	Concrete ~ 5" thick	
						2	CL	Baseroack: coarse rounded gravel 2-3" Sandy Lean CLAY; medium grayish brown, low to medium plasticity, 30% fine sand, <10% fine gravel	
						3	SC	Clayey SAND; dark-medium grey brown mottled with light brown, fine sand, low to medium plasticity, <15% fine gravel	
						4			
						5			
						6			
						7			
						8			
						9	CH	Fat CLAY; medium to dark brown, soft, high plasticity	
						10			
						11			
						12			
						13			
						14		(stiff)	
						15			
						16			
						17			
						18			
						19			
						20			
						21			
						22			



PROJECT NO: C81-6750 Santa Rita CLIENT: Shell OPUS
 LOGGED BY: J. Pearson LOCATION: 6750 Santa Rita Rd
 DRILLER: Gregg DATE DRILLED: 10/8/02
 DRILLING METHOD: HSA HOLE DIAMETER: 8'
 SAMPLING METHOD: Split Spoon HOLE DEPTH: 42.5'
 CASING TYPE: PVC WELL DIAMETER: 2'
 SLOT SIZE: 0.010 WELL DEPTH: 42'
 GRAVEL PACK: 2-12 CASING STICKUP: NA

BORING/WELL NO: MW-1
 PAGE 2 OF 2

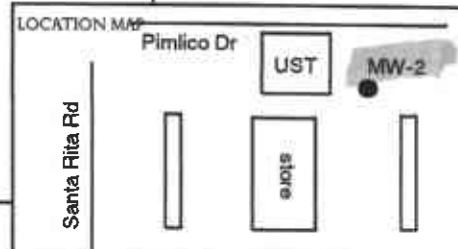


ELEVATION NORTHING EASTING

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			damp	4.2	5 7 9	23 24 25	CH SP CH	continued Poorly Graded SAND; medium brown, very fine grained, loose Fat CLAY; light brown, soft, high plasticity	
			damp	1.6	4 5 6	29 30	SP	Poorly Graded SAND; medium brown, fine grained	
			wet		4 6 7 4 7 13 7 12 15	34 35 36 37 38	SC/ CH CH	Clayey SAND and Fat CLAY; alternating 6" layers, (Clayey Sand is medium brown, 60% sand, 40% clay, fine to medium grained sand, moderate plasticity) (Fat Clay is medium brown, stiff, high plasticity) Fat CLAY; medium brown, stiff, high plasticity	
			wet		9 10 5 6 8 6 8 8 11	39 40 41 42		(grades coarser, 5% fine grained sand) (soft) (stiff)	
						43		BOTTOM OF BORING @ 42.5 ft	
						44			



PROJECT NO: C81-6750 Santa Rita	CLIENT: Shell OPUS	BORING/WELL NO: MW-2
LOGGED BY: J. Pearson	LOCATION: 6750 Santa Rita Rd	PAGE 1 OF 2
DRILLER: Gregg	DATE DRILLED: 10/8/02	
DRILLING METHOD: HSA	HOLE DIAMETER: 8"	
SAMPLING METHOD: Split Spoon	HOLE DEPTH: 42.5'	
CASING TYPE: PVC	WELL DIAMETER: 2"	
SLOT SIZE: 0.010	WELL DEPTH: 42'	
GRAVEL PACK: 2-12	CASING STICKUP: NA	



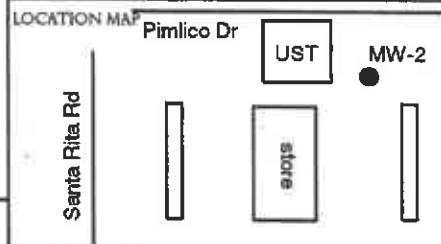
ELEVATION	NORTHING	EASTING
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Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
Cement Grout	Casing	[Water Level Line]	moist	0.7	Air Knifed	1		AF	Concrete 6" thick
						2		CL	Basereck: 2" thick coarse gravel
						3		SC	Lean CLAY with Sand; dark yellow brown, 10%-20% fine sand, silty, medium plasticity
						4			Clayey SAND interbedded with Silt, dark-medium yellow brown, 20-35% fine sand, low to medium plasticity
						5			
						6			
						7		CH	Fat CLAY; dark brown, plastic, soft
						8			
						9			
						10			(stiff, slightly friable)
						11			
						12			
						13			
						14			(rare silt and gravel up to 1/4")
						15			
						16			
						17			
						18			
						19			(orange-brown, stiff, rare medium grained sand)
						20			
						21			
						22			



PROJECT NO: C81-6750 Santa Rita CLIENT: Shell OPUS
 LOGGED BY: J. Pearson LOCATION: 6750 Santa Rita Rd
 DRILLER: Gregg DATE DRILLED: 10/8/02
 DRILLING METHOD: HSA HOLE DIAMETER: 8"
 SAMPLING METHOD: Split Spoon HOLE DEPTH: 42.5'
 CASING TYPE: PVC WELL DIAMETER: 2"
 SLOT SIZE: 0.010 WELL DEPTH: 42'
 GRAVEL PACK: 2-12 CASING STICKUP: NA

BORING/WELL NO: MW-2
 PAGE 2 OF 2



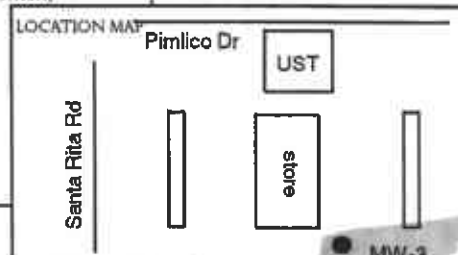
ELEVATION NORTHING EASTING

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			damp	3.6	2 4 6	23 24 25	CH	cont.	
			damp	4.3	5 8 9	29 30	CH	Fat CLAY ; medium to light brown, 70% clay, 30% silt, soft, friable, high plasticity	
		▽	wet		7 12 14	34 35	CH	Gravelly Fat CLAY ; greenish brown, 70% clay, 30% 1/4" gravel	
			wet		6 8 9	36 37		(grades finer, 10% 1/2" gravel, soft)	
			wet		11 6 8 13	38 39	SP	Clayey SAND ; medium brown with trace black and reddish grains, 70% sand, 30% clay, fine grained sand	
					9 11 15 11	40 41		(2" clay interbed @ 40')	
					17 20	42		(grades coarser, 80% fine sand)	
						43		BOTTOM OF BORING @ 42.5 ft	
						44			



PROJECT NO: C81-6750 Santa Rita CLIENT: Shell OPUS
 LOGGED BY: J. Pearson LOCATION: 6750 Santa Rita Rd, Pleasanton, CA
 DRILLER: Gregg DATE DRILLED: 10/9/02
 DRILLING METHOD: HSA HOLE DIAMETER: 8"
 SAMPLING METHOD: Split Spoon HOLE DEPTH: 44.5'
 CASING TYPE: PVC WELL DIAMETER: 2"
 SLOT SIZE: 0.010 WELL DEPTH: 44'
 GRAVEL PACK: 2-12 CASING STICKUP: NA

BORING/WELL NO: MW-3
 PAGE 1 OF 2



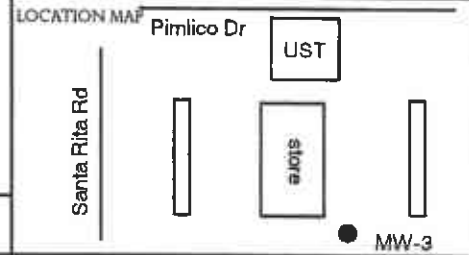
ELEVATION NORTHING EASTING

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION	
Backfill	Casing									
			moist		↑ Air Knifed ↓	1		AF	Concrete 6" thick	
						2		CL	Baserock 2": coarse rounded gravel Sandy Lean CLAY; dark gray to olive gray, 10-20% fine sand, 10-15% fine gravel, medium plasticity	
						3				(alternating sandy clay and clayey sand)
						4				
						5				(clay becomes stiffer below 5')
						6				
					damp			7		
					damp			8		
					damp	2.2	2	9	CH	Fat CLAY; uniform dark brown, soft, high plasticity
							3	10		
							4	11		
					damp	4.6	3	12		(stiff)
							6	13		
							8	14		
					damp	20.1	3	15		(10% grey-white coarse sand)
							4	16		
							6	17		
								18		
								19		
								20		
								21		
								22		



PROJECT NO: C81-6750 Santa Rita CLIENT: Shell OPUS
 LOGGED BY: J. Pearson LOCATION: 6750 Santa Rita Rd, Pleasanton, CA
 DRILLER: Gregg DATE DRILLED: 10/9/02
 DRILLING METHOD: HSA HOLE DIAMETER: 8"
 SAMPLING METHOD: Split Spoon HOLE DEPTH: 44.5'
 CASING TYPE: PVC WELL DIAMETER: 2"
 SLOT SIZE: 0.010 WELL DEPTH: 44'
 GRAVEL PACK: 2-12 CASING STICKUP: NA

BORING/WELL NO: MW-3
 PAGE 2 OF 2

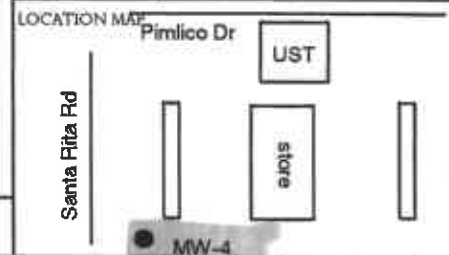


ELEVATION NORTHING EASTING

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
						23		CH	cont.
			damp	2.0	4 6 11	24		SC	Clayey SAND ; medium brown, 75% sand, 25% clay, fine grained, loose
						25			
						26			
						27			
						28			
			damp	2.0	4 7 8	29		CH	Sandy CLAY ; medium brown, 75% clay, 25% sand, fine grained, soft
						30			
						31			
						32			
						33			
			damp		5	34		CH	Fat CLAY ; medium brown, soft, high plasticity
					6				
			damp		7	35			(trace greenish tint to clay)
					4				
					6	36			
			wet		7				
			damp		4	37			(stiff)
					8				
			wet		10	38			
					5				
					6	39			
			wet		8				
					4	40			(soft, no sand)
					6				
					7	41			
					6				
					8	42		SC	Clayey SAND ; brown to orange brown with black grains, 80% sand, 20% clay, fine grained
					11				
					7	43			(grades coarser, medium to coarse grained sand)
					11				
					15	44			BOTTOM OF BORING @ 44.5 ft



PROJECT NO: C81-6750 Santa Rita CLIENT: Shell OPUS
 LOGGED BY: J. Pearson LOCATION: 6750 Santa Rita Rd, Pleasanton, CA BORING/WELL NO: MW-4
 DRILLER: Gregg DATE DRILLED: 10/9/02 PAGE 1 OF 2
 DRILLING METHOD: HSA HOLE DIAMETER: 8"
 SAMPLING METHOD: Split Spoon HOLE DEPTH: 44.5'
 CASING TYPE: PVC WELL DIAMETER: 2"
 SLOT SIZE: 0.010 WELL DEPTH: 44'
 GRAVEL PACK: 2-12 CASING STICKUP: NA

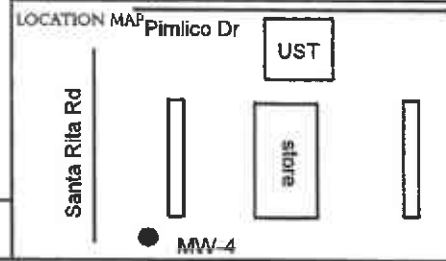


ELEVATION NORTHING EASTING

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION		
Backfill	Casing										
			damp		↑ Air Knifed ↓	1		AF	Concrete ~2" thick		
			moist			2		SW	Fill ~8", well graded sand and gravel		
			moist			3				SW	Well Graded SAND with Gravel; brown, fine to coarse sand, ~30% gravel, up to 1.5"
						4				CL	Lean CLAY with Gravel; dark brown, ~30% gravel, moderate plasticity (grades finer, <10% gravel)
						5				CL	
						6				CL	
						7				CH	Fat CLAY; dark brown, soft, high plasticity
						8					
						9	3				
						10	4				(stiff)
						11	6				
						12					
						13					
						14	4				(moderate plasticity)
						15	5				
						16	8				
						17					
						18					
						19	5				(stiff, high plasticity)
						20	7				
						21	14				
						22					



PROJECT NO: C81-6750 Santa Rita CLIENT: Shell OPUS BORING/WELL NO: MW-4
 LOGGED BY: J. Pearson LOCATION: 6750 Santa Rita Rd, Pleasanton, CA PAGE 2 OF 2
 DRILLER: Gregg DATE DRILLED: 10/9/02
 DRILLING METHOD: HSA HOLE DIAMETER: 8"
 SAMPLING METHOD: Split Spoon HOLE DEPTH: 44.5'
 CASING TYPE: PVC WELL DIAMETER: 2"
 SLOT SIZE: 0.010 WELL DEPTH: 44'
 GRAVEL PACK: 2-12 CASING STICKUP: NA



ELEVATION NORTHING EASTING

Well Completion		Static Water Level	Moisture Content	PID Reading (ppm)	Penetration (blows/6")	Depth (feet)	Sample Recovery Interval	Soil Type	LITHOLOGY / DESCRIPTION
Backfill	Casing								
			damp	0.6	4 6 7	23 24 25	CH	cont. (color change from light brown to dark brown at 24')	
			damp	0.1	4 5 10	29 30	SC	Clayey SAND; medium brown, 70% sand, 30% clay fine grained, loose	
		▽	wet		3 4 4 3 4 6 3 3 5 3 4 6 6 8 8 3 5 6 5 7 14	34 35 36 37 38 39 40 41 42 43 44	CH/SC	Fat CLAY and Clayey SAND alternating 18" layers (Fat clay is brown with greenish mottling and slight FeO staining, soft, high plasticity) (Clayey sand is medium brown, 70% sand, 30% clay, fine grained, dense) (grades stiffer)	
BOTTOM OF BORING @ 44.5 ft									

APPENDIX C

**WELL DEVELOPMENT
FIELD DATA SHEETS**

WELL DEVELOPMENT DATA SHEET

Project #: 021204 - RH1	Client: Shell
Developer: Ryan Hanstedt	Date Developed: 12/4/02
Well I.D. mw-1	Well Diameter: (circle one) 2 3 4 6
Total Well Depth: Before 41.10 After 41.80	Depth to Water: Before 31.75 After 40.45
Reason not developed:	If Free Product, thickness:
Additional Notations: Surged for 15 min prior to purging	

Volume Conversion Factor (VCF):
 $(12 \times (d^2/4) \times \pi) / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in³/gal

Well dia.	VCF
2"	= 0.16
3"	= 0.37
4"	= 0.65
6"	= 1.47
10"	= 4.08
12"	= 6.87

$$1.5 \times 10 = 15.0$$

1 Case Volume Specified Volumes = gallons

Purging Device: Bailer Electric Submersible
 Middleburg Suction Pump

Type of Installed Pump _____
 Other equipment used 2" surge block

TIME	TEMP (F)	pH	Cond. (mS or μ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
926						Bottom feels silty, start w/ MB pump, sitate bottom while purging
934	61.4	6.9	2637	>200	1.5	very silty, dark brown
938	63.5	7.1	2720	>200	3.0	" " " "
941	63.6	7.1	2609	>200	4.5	Hard bottom, very silty, dark brown
944	63.6	7.0	2722	>200	6.0	brown, very silty
947	63.7	7.0	2721	>200	7.5	" " "
950	61.9	7.9	2660	>200	9.0	" " " with at bottom
Well dewatered @ 9.0 gal, DTW = 40.18, then DTW = 38.12 @ 1112						
At 1256 DTW = 36.97, surge for 10 min, then purge						
1309	65.2	7.1	2710	>200	10.5	brown, silty, hard bottom
1311	64.6	7.4	2684	>200	12.0	" "
Well dewatered @ 12.5 gal DTW = 40.45						
Did Well Dewater? <u>Yes</u> If yes, note above.					Gallons Actually Evacuated: 12.5	

WELL DEVELOPMENT DATA SHEET

Project #: 021204 - RH1	Client: Shell
Developer: Ryan Hanstedt	Date Developed: 12/4/02
Well I.D. mw-2	Well Diameter: (circle one) ② 3 4 6
Total Well Depth: Before 41.60 After 42.15	Depth to Water: Before 31.25 After 39.96
Reason not developed:	If Free Product, thickness:
Additional Notations: Surged for 15 min prior to purging	

Volume Conversion Factor (VCF): (12 x (d ² /4) x π) / 231	Well dia.	VCF
where	2" =	0.16
12 = in / foot	3" =	0.37
d = diameter (in.)	4" =	0.65
π = 3.1416	6" =	1.47
231 = in ³ /gal	10" =	4.08
	12" =	6.87

$$\frac{1.7}{1 \text{ Case Volume}} \times \frac{10}{\text{Specified Volumes}} = \frac{17.0}{\text{gallons}}$$

Purging Device: Bailer Electric Submersible
 Middleburg Suction Pump

Type of Installed Pump _____
 Other equipment used 2" surge block

TIME	TEMP (F)	pH	Cond. (mS or <u>µS</u>)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1210						Bottom feels silty, begin w/ MB pump, agitate bottom
1215	65.0	6.9	3075	>200	1.7	brown, very silty
1218	65.1	7.0	3047	>200	3.4	" " "
1221	64.8	7.0	3117	>200	5.1	bottom is hard, brown, very silty
1224	64.1	7.0	3128	>200	6.8	doesn't feel like much water left, slow down pump
1228	63.4	7.4	3035	>200	8.5	close to dewatering, slow down, brown, very silty
1235	63.7	7.3	3127	>200	10.2	brown, very silty
			Well dewatered @ 10.5 gal DTW = 40.12			
1403			DTW = 35.57 Surged for 10 min before purging, then start w/ MB			
1417	65.6	7.0	3012	>200	11.9	bottom feels hard, brown, very silty
1420	65.2	7.0	3108	>200	13.6	brown, very silty
1423	64.8	7.3	2974	>200	15.3	brown, silty
1426	64.2	7.3	2981	>200	17.0	" "
Did Well Dewater? Yes			If yes, note above.		Gallons Actually Evacuated:	17.0

↳ at 6 CV but got full 10 CV

WELL DEVELOPMENT DATA SHEET

Project #: <u>021204 - RH</u>	Client: <u>Shell</u>
Developer: <u>Ryan Hanstedt</u>	Date Developed: <u>12/4/02</u>
Well I.D. <u>mw-3</u>	Well Diameter: (circle one) <u>②</u> 3 4 6
Total Well Depth: Before <u>43.05</u> After <u>44.12</u>	Depth to Water: Before <u>31.65</u> After <u>38.80</u>
Reason not developed:	If Free Product, thickness:
Additional Notations: <u>Surged for 15 min prior to purging</u>	

Volume Conversion Factor (VCF):
 $(12 \times (d^2/4) \times \pi) / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in³/gal

Well dia.	VCF
2"	= 0.16
3"	= 0.37
4"	= 0.65
6"	= 1.47
10"	= 4.08
12"	= 6.87

$$\frac{1.8}{1 \text{ Case Volume}} \times \frac{10}{\text{Specified Volumes}} = \frac{18.0}{\text{gallons}}$$

Purging Device: Bailer Electric Submersible
 Middleburg Suction Pump

Type of Installed Pump _____
 Other equipment used 2" surge block

*Bottom feels silty, start w/ MB pump
 agitate bottom*

TIME	TEMP (F)	pH	Cond. (mS or μ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
1034	64.4	6.9	2340	>200	1.8	very silty, brown
1037	66.0	7.1	2347	>200	3.6	" " "
1040	66.1	7.0	2432	>200	5.4	Bottom feels harder, brown, very silty
1043	65.8	7.0	2635	>200	7.2	very silty, brown
1046	65.8	7.0	2510	>200	9.0	becoming less silty, brown
1049	65.5	7.2	2475	>200	10.8	slowed pump down, not much water left
1053	65.2	7.4	2630	>200	12.6	brown, silty
Well dewatered @ 12.6 gal. DTW = 41.50						
1323	DTW = 31.70 Surged for 10 min prior to purging					
1335	Bottom feels a little silty, start w/ MB, agitate bottom					
1339	67.2	7.0	2810	>200	14.4	bottom feels harder, brown, silty
1343	67.3	7.0	2836	>200	16.2	brown, silty
1346	66.7	7.0	2900	>200	18.0	hard bottom, brown, silty
Did Well Dewater? <u>Yes</u>	If yes, note above.			Gallons Actually Evacuated:		18.0

↳ @ 7 case volumes, but able to get full 10 CV

WELL DEVELOPMENT DATA SHEET

Project #: <u>021204 - RH1</u>	Client: <u>Shell</u>
Developer: <u>Ryan Hamstedt</u>	Date Developed: <u>12/4/02</u>
Well I.D. <u>mw-4</u>	Well Diameter: (circle one) <u>(2)</u> 3 4 6
Total Well Depth:	Depth to Water:
Before <u>44.05</u> After <u>44.25</u>	Before <u>32.92</u> After <u>41.02</u>
Reason not developed:	If Free Product, thickness:
Additional Notations: <u>Surged for 15 min prior to purging</u>	

Volume Conversion Factor (VCF):
 $(12 \times (d^2/4) \times \pi) / 231$
 where
 12 = in / foot
 d = diameter (in.)
 $\pi = 3.1416$
 231 = in³/gal

Well dia.	VCF
2"	0.16
3"	0.37
4"	0.65
6"	1.47
10"	4.08
12"	6.87

<u>1.8</u>	X	<u>10</u>	=	<u>18.0</u>
1 Case Volume		Specified Volumes		gallons

Purging Device: Bailer Electric Submersible
 Middleburg Suction Pump

Type of Installed Pump _____
 Other equipment used 2" surge block

TIME	TEMP (F)	pH	Cond. (mS or μ S)	TURBIDITY (NTUs)	VOLUME REMOVED:	NOTATIONS:
800						Bottom is almost hard. Start w/ MB pump and agitate bottom.
806	60.2	7.1	2490	>200	1.8	very silty, dark brown
810	62.3	6.9	2661	>200	3.6	bottom feels hard, very silty, dark brown
814	63.3	6.9	2610	>200	5.4	very silty, brown
818	63.8	6.9	2562	>200	7.2	definitely hard bottom, brown, silty
823	63.0	7.0	2518	>200	9.0	brown, slightly less silty
826	63.7	7.1	2482	>200	10.8	brown, silty, wants to dewater, slow down pump
833	63.3	7.0	2461	>200	12.6	lighter brown, less silty
839	62.5	7.0	2464	>200	14.4	clearing up, not as silty
846	62.7	7.0	2497	>200	16.2	cloudy
853	62.5	7.0	2508	>200	18.0	cloudy, w/ less silt

Did Well Dewater? <u>NO</u>	If yes, note above.	Gallons Actually Evacuated:	<u>18.0</u>
-----------------------------	---------------------	-----------------------------	-------------

↳ but needed to slow the pump down @ the 6th case vol.

APPENDIX D

SITE SURVEY DATA



Mid Coast Engineers

Civil Engineers and Land Surveyors

70 Penny Lane, Suite A - Watsonville, CA 95076

phone: (831) 724-2580

fax: (831) 724-8025

e-mail: lee@midcoastengineers.com

Richard A. Wadsworth
Civil Engineer

Stanley O. Nielsen
Land Surveyor

Lee D. Vaage
Land Surveyor

Jeff S. Nielsen
Land Surveyor

November 25, 2002

Debbie Arnold
KHM Environmental Management, Inc.
6284 San Ignacio Avenue, Suite E
San Jose, CA 95119

Re: **Shell-branded Service Station, 6750 Santa Rita Road, Pleasanton, California;** KHM
Project C81-6750 Santa Rita, MCE Job No.02249

Dear Ms. Arnold,

As you requested, on November 22 we surveyed four monitoring wells located at the referenced site. Our findings are listed on the attached sheets, expressed in State Plane Coordinates and Latitude/Longitude.

A notch was cut in the north rim of the PVC casing (TOC) and a cross chiseled in the north rim of the box (TOB).

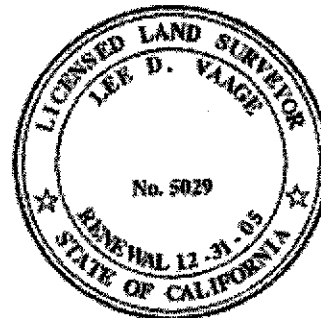
Measurements were obtained from conventional survey techniques in combination with GPS techniques (Code CGPS), using control points AA3813 (HPGN D CA 04 EK), AA3815 (HPGN D CA 04 FK) and HS5408 (HPGN CA 04 07), as published by NGS/NOAA and listed on their web site. Latitude and Longitude as shown were determined from the California Coordinate System, Zone 2, NAD 83 Datum. The accuracy range of the reported information is +/- 5mm. GPS equipment is the Trimble 5700 system (Code T57).

The benchmark used for this survey is Q 1257, a disk on the top of a copper coated rod, stamped "Q 1257 1974", at the junction of Santa Rita Road and Black Avenue, at the Amador Valley Community Park. Elevation = 341.578 feet, NGVD 29, as obtained from the City of Pleasanton Public Works Department.

Please let me know if you have questions or need additional information.

Yours truly,


Lee D. Vaage



SHELL-BRANDED SERVICE STATION
6750 Santa Rita Road
Pleasanton, California

KHM Project C81-6750 Santa Rita

Project : 02249

User name MCE Date & Time 3:03:46 PM 11/25/2002
Coordinate System US State Plane 1983 Zone California Zone 3 0403
Project Datum NAD 1983 (Conus)
Vertical Datum NGVD29
Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

Point listing

Name	Northing	Easting	Elevation	Description
203	2080122.02	6164807.87	343.44	MW-4toc
204	2080122.51	6164807.90	343.87	MW-4tob
205	2080126.72	6164884.05	342.23	MW-3toc
206	2080127.18	6164884.06	342.78	MW-3tob
207	2080231.92	6164896.94	342.86	MW-2toc
208	2080232.29	6164896.99	343.19	MW-2tob
210	2080231.41	6164837.85	343.48	MW-1toc
211	2080231.88	6164837.92	343.79	MW-1tob

SHELL-BRANDED SERVICE STATION
6750 Santa Rita Road
Pleasanton, California

KHM Project C81-6750 Santa Rita

Project : 02249

User name MCE Date & Time 3:03:46 PM 11/25/2002
Coordinate System US State Plane 1983 Zone California Zone 3 0403
Project Datum NAD 1983 (Conus)
Vertical Datum NGVD29
Coordinate Units US survey feet
Distance Units US survey feet
Elevation Units US survey feet

Point listing

Name	Latitude	Longitude	Elevation	Description
203	37.699630258°N	121.871769391°W	343.44	MW-4toc
204	37.699631614°N	121.871769317°W	343.87	MW-4tob
205	37.699646248°N	121.871506370°W	342.23	MW-3toc
206	37.699647509°N	121.871506363°W	342.78	MW-3tob
207	37.699935644°N	121.871467122°W	342.86	MW-2toc
208	37.699936674°N	121.871466995°W	343.19	MW-2tob
210	37.699931853°N	121.871671319°W	343.48	MW-1toc
211	37.699933160°N	121.871671125°W	343.79	MW-1tob

	A	B	C	D	E	F	G	H	I	J	K	L
1	SHELL-BRANDED SERVICE STATION											
2	6750 Santa Rita Road											
3	Pleasanton, California											
4												
5	KHM Project C81-6750 Santa Rita											
6												
7	Project : 02249											
8	User name MCE Date & Time 3:03:46 PM 11/25/2002											
9	Coordinate System US State Plane 1983 Zone California Zone 3 0403											
10	Project Datum NAD 1983 (Conus)											
11	Vertical Datum NGVD29											
12	Coordinate Units US survey feet											
13	Distance Units US survey feet											
14	Elevation Units US survey feet											
15												
16	MW-1	MW	11/22/2002	37.6999319	-121.8716713	CGPS	NAD83	0.05	Mid Coast Engineers	T57	top of casing	
17	MW-2	MW	11/22/2002	37.6999356	-121.8714671	CGPS	NAD83	0.05	Mid Coast Engineers	T57	top of casing	
18	MW-3	MW	11/22/2002	37.6996462	-121.8715064	CGPS	NAD83	0.05	Mid Coast Engineers	T57	top of casing	
19	MW-4	MW	11/22/2002	37.6996303	-121.8717694	CGPS	NAD83	0.05	Mid Coast Engineers	T57	top of casing	

	A	B	C	D	E	F	G	H	I	J
1	SHELL-BRANDED SERVICE STATION									
2	6750 Santa Rita Road									
3	Pleasanton, California									
4										
5	KHM Project C81-6750 Santa Rita									
6										
7	Project : 02249									
8	User name MCE Date & Time 3:03:46 PM 11/25/2002									
9	Coordinate System US State Plane 1983 Zone California Zone 3 0403									
10	Project Datum NAD 1983 (Conus)									
11	Vertical Datum NGVD29									
12	Coordinate Units US survey feet									
13	Distance Units US survey feet									
14	Elevation Units US survey feet									
15										
16		MW-1	11/22/2002	343.48	CGPS	29		Mid Coast Engineers		top of casing
17		MW-2	11/22/2002	342.86	CGPS	29		Mid Coast Engineers		top of casing
18		MW-3	11/22/2002	342.23	CGPS	29		Mid Coast Engineers		top of casing
19		MW-4	11/22/2002	343.44	CGPS	29		Mid Coast Engineers		top of casing

APPENDIX E

**SOIL LABORATORY REPORT
AND CHAIN-OF-CUSTODY
DOCUMENTATION**



Report Number : 29114

Date : 10/17/02

Debbie Arnold
KHM Environmental Management
6284 San Ignacio Ave, #E
San Jose, CA 95119

Subject : 7 Soil Samples
Project Name : 6750 Santa Rita Road, Pleasanton
Project Number : C81-6750 Santa Rita
P.O. Number : 97402156

Dear Ms. Arnold,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,


Joel Kiff



Report Number : 29114

Date : 10/17/02

Project Name : 6750 Santa Rita Road, Pleasanton

Project Number : C81-6750 Santa Rita

Sample : MW-2 @ 20 feet

Matrix : Soil

Lab Number : 29114-01

Sample Date : 10/8/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Toluene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Ethylbenzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Total Xylenes	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Diisopropyl ether (DIPE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Ethyl-t-butyl ether (ETBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Tert-amyl methyl ether (TAME)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Tert-Butanol	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/12/02
Toluene - d8 (Surr)	100		% Recovery	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	103		% Recovery	EPA 8260B	10/12/02

Approved By:  Joel Kiff



Report Number : 29114

Date : 10/17/02

Project Name : 6750 Santa Rita Road, Pleasanton

Project Number : C81-6750 Santa Rita

Sample : MW-3 @ 20 feet

Matrix : Soil

Lab Number : 29114-02

Sample Date :10/9/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Toluene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Ethylbenzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Total Xylenes	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Diisopropyl ether (DIPE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Ethyl-t-butyl ether (ETBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Tert-amyl methyl ether (TAME)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Tert-Butanol	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/12/02
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	102		% Recovery	EPA 8260B	10/12/02

Approved By:  Joel Kiff



Report Number : 29114

Date : 10/17/02

Project Name : 6750 Santa Rita Road, Pleasanton

Project Number : C81-6750 Santa Rita

Sample : Disposal A

Matrix : Soil

Lab Number : 29114-03

Sample Date :10/8/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	96.7		% Recovery	EPA 8260B	10/12/02

Approved By:  Joel Kiff



Report Number : 29114

Date : 10/17/02

Project Name : 6750 Santa Rita Road, Pleasanton

Project Number : C81-6750 Santa Rita

Sample : Disposal B

Matrix : Soil

Lab Number : 29114-04

Sample Date :10/8/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/14/02
4-Bromofluorobenzene (Surr)	107		% Recovery	EPA 8260B	10/14/02

Approved By:  Joel Kiff



Report Number : 29114

Date : 10/17/02

Project Name : 6750 Santa Rita Road, Pleasanton

Project Number : C81-6750 Santa Rita

Sample : Disposal C

Matrix : Soil

Lab Number : 29114-05

Sample Date :10/9/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	10/12/02

Approved By:  Joel Kiff



Report Number : 29114

Date : 10/17/02

Project Name : 6750 Santa Rita Road, Pleasanton

Project Number : C81-6750 Santa Rita

Sample : Disposal D

Matrix : Soil

Lab Number : 29114-06

Sample Date :10/9/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	94.3		% Recovery	EPA 8260B	10/12/02

Approved By:  Joel Kiff



Report Number : 29114

Date : 10/17/02

Project Name : 6750 Santa Rita Road, Pleasanton

Project Number : C81-6750 Santa Rita

Sample : Disposal A,B,C,D

Matrix : Soil

Lab Number : 29114-07

Sample Date :10/8/02

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Toluene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Ethylbenzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Total Xylenes	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Toluene - d8 (Surr)	102		% Recovery	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	97.0		% Recovery	EPA 8260B	10/12/02

Approved By:  Joel Kiff

Report Number : 29114

Date : 10/17/02

QC Report : Method Blank Data

Project Name : 6750 Santa Rita Road, Pleasanton


Project Number : C81-6750 Santa Rita

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
Benzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Toluene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Ethylbenzene	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
Total Xylenes	< 0.005	0.005	mg/Kg	EPA 8260B	10/12/02
TPH as Gasoline	< 1.0	1.0	mg/Kg	EPA 8260B	10/12/02
Methyl-t-butyl ether (MTBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Diisopropyl ether (DIPE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Ethyl-t-butyl ether (ETBE)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Tert-amyl methyl ether (TAME)	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Tert-Butanol	< 0.5	0.5	mg/Kg	EPA 8260B	10/12/02
Toluene - d8 (Surr)	101		%	EPA 8260B	10/12/02
4-Bromofluorobenzene (Surr)	102		%	EPA 8260B	10/12/02

<u>Parameter</u>	<u>Measured Value</u>	<u>Method Reporting Limit</u>	<u>Units</u>	<u>Analysis Method</u>	<u>Date Analyzed</u>
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KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:  _____
Joel Kiff

Report Number : 29114

Date : 10/17/02

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 6750 Santa Rita Road,

Project Number : C81-6750 Santa Rita

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	29114-01	<0.0050	0.0393	0.0396	0.0416	0.0355	mg/Kg	EPA 8260B	10/14/02	106	89.6	16.6	70-130	25
Toluene	29114-01	<0.0050	0.0393	0.0396	0.0409	0.0352	mg/Kg	EPA 8260B	10/14/02	104	89.0	15.6	70-130	25
Tert-Butanol	29114-01	<0.0050	0.196	0.198	0.188	0.150	mg/Kg	EPA 8260B	10/14/02	96.0	75.6	23.7	70-130	25
Methyl-t-Butyl Ether	29114-01	<0.0050	0.0393	0.0396	0.0394	0.0338	mg/Kg	EPA 8260B	10/14/02	100	85.3	16.1	70-130	25

Approved By:  Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 29114

Date : 10/17/02

QC Report : Laboratory Control Sample (LCS)

Project Name : 6750 Santa Rita Road,

Project Number : C81-6750 Santa Rita

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	0.0397	mg/Kg	EPA 8260B	10/12/02	102	70-130
Toluene	0.0397	mg/Kg	EPA 8260B	10/12/02	96.3	70-130
Tert-Butanol	0.198	mg/Kg	EPA 8260B	10/12/02	94.5	70-130
Methyl-t-Butyl Ether	0.0397	mg/Kg	EPA 8260B	10/12/02	92.8	70-130

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:  _____
Joel Kiff

Calscience
Environmental
Laboratories, Inc.

October 17, 2002

Joel Kiff
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95616-6593

Subject: Calscience Work Order No.: 02-10-0800
Client Reference: 6750 Santa Rita Road, Pleasanton


Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 10/12/2002 and analyzed in accordance with the attached chain-of-custody.

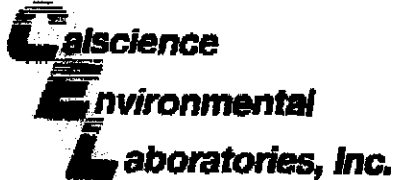
Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Assurance Program Manual, applicable standard operating procedures, and other related documentation. The original report of any subcontracted analysis is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,


Calscience Environmental
Laboratories, Inc.
Stephen Nowak
Project Manager


Michael J. Crisostomo
Quality Assurance Manager



ANALYTICAL REPORT

Kiff Analytical
 2795 2nd Street, Suite 300
 Davis, CA 95616-6593

Date Received: 10/12/02
 Work Order No: 02-10-0800
 Preparation: Total Digestion
 Method: EPA 6010B

Project: 6750 Santa Rita Road, Pleasanton

Page 1 of 1

Client Sample Number	Lab Sample Number	Date Collected	Matrix	Date Prepared	Date Analyzed	QC Batch ID
Disposal A,B,C,D	02-10-0800-1	10/08/02	Solid	10/14/02	10/15/02	021014L04

Parameter	Result	RL	DF	Qual	Units
Lead	7.47	0.50	1		mg/kg
Method Blank		0.50	1	N/A	mg/kg

Parameter	Result	RL	DF	Qual	Units
Lead	ND	0.500	1		mg/kg

RL - Reporting Limit, DF - Dilution Factor, Qual - Qualifiers



Quality Control - Spike/Spike Duplicate

Kiff Analytical
 2795 2nd Street, Suite 300
 Davis, CA 95616-6593

Date Received: 10/12/02
 Work Order No: 02-10-0800
 Preparation: Total Digestion
 Method: EPA 6010B

Project: 6750 Santa Rita Road, Pleasanton

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
02-10-0795-1	Solid	ICP 3300	10/14/02	10/15/02	021014904

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	100	100	75-125	3	0-20	



Quality Control - Laboratory Control Sample

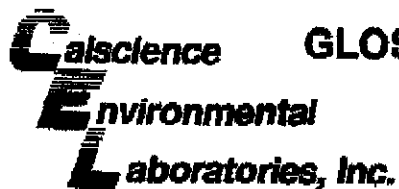
Kiff Analytical
2795 2nd Street, Suite 300
Davis, CA 95618-8593

Date Received: 10/12/02
Work Order No: 02-10-0800
Preparation: Total Digestion
Method: EPA 6010B

Project: 6750 Santa Rita Road, Pleasanton

Quality Control Sample ID	Matrix	Instrument	Date Analyzed	Lab File ID	LCS Batch Number
097-01-002-3,699	Solid	ICP 3300	10/15/02	0210144-04	0210144-04

Parameter	Conc Added	Conc Recovered	%Rec	%Rec CL	Qualifiers
Lead	50.0	50.8	101	80-120	



GLOSSARY OF TERMS AND QUALIFIERS

Work Order Number: 02-10-0800

<u>Qualifier</u>	<u>Definition</u>
ND	Not detected at indicated reporting limit.



WORK ORDER #: 02-000800

Cooler _____ of _____

SAMPLE RECEIPT FORM

CLIENT: KIFF

DATE: 10/12/02

TEMPERATURE - SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

- Chilled, cooler with temperature blank provided.
Chilled, cooler without temperature blank.
Chilled and placed in cooler with wet ice.
Ambient and placed in cooler with wet ice.
Ambient temperature.
°C Temperature blank.

LABORATORY (Other than CalScience Courier):

- 3 °C Temperature blank.
°C IR thermometer.
Ambient temperature.

Initial: [Signature]

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: [checked] No (Not Intact): _____ Not Applicable (N/A): _____

Initial: [Signature]

SAMPLE CONDITION:

Table with 4 columns: Description, Yes, No, N/A. Rows include Chain-Of-Custody document(s), Sample container label(s), Sample container(s) intact, Correct containers for analyses, Proper preservation noted, VOA vial(s) free of headspace, Tedlar bag(s) free of condensation.

Initial: [Signature]

COMMENTS:

Blank lines for handwritten comments.



2795 Second Street, Suite 300
 Davis, CA 95618
 Lab: 530.297.4800
 Fax: 530.297.4803

Cal Science Environmental
 7440 Lincoln Way
 Garden Grove, CA 92841
 714-895-5494

02-10-0800

Lab No. _____ Page 1 of 1

Project Contact (Hardcopy or PDF to): Joel Kiff		EDF Report? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				Chain-of-Custody Record and Analysis Request																
Company/Address: Kiff Analytical, LLC		Recommended but not mandatory to complete this section: Sampling Company Log Code:				Analysis Request						Date due:										
Phone No.: _____ FAX No.: _____		Global ID: _____				TTLC Lead	STLC Lead if TTLC => 50 MG/KG	ORGANIC Lead if TTLC => 13 MG/KG	CAM Metals- please hold					October 24, 2002	For Lab Use Only							
Project Number: _____ P.O. No.: _____		EDF Deliverable to (Email Address): _____																				
Project Name: 6750 Santa Rita Road, Pleasanton		E-mail address: inbox@kiffanalytical.com																				
Project Address:		Sampling		Container			Preservative			Matrix		TTLC Lead	STLC Lead if TTLC => 50 MG/KG	ORGANIC Lead if TTLC => 13 MG/KG	CAM Metals- please hold					October 24, 2002	For Lab Use Only	
Sample Designation		Date	Time	Glass Jar	Poly	Amber	HCl	HNO3	ICE	NONE	WATER											SOIL
Disposal A,B,C,D		10/8/02		1					X													X
Relinquished by:		Date	Time	Received by:								Remarks: *Metals to be determined.										
Relinquished by: <i>D.W. Tiff Analytical</i>		10/10/02	1830									Incident#: 97402156										
Relinquished by: <i>Cal Overnight</i>		10/12	12:25	Received by Laboratory: <i>[Signature]</i>								BBI to:										

TOTAL P.07

OCT-17-2002 13:09 CALSCIENCE 714 894 7501 P.07/07

EQUIVA Services LEC Chain Of Custody Record

720 Olive Drive, Suite D
Davis, CA 95616

(530) 297-4800 (530) 297-4803 fax

EQUIVA Project Manager to be Invoiced:

- SCIENCE & ENGINEERING Karen Petryna
- TECHNICAL SERVICES
- CRMT HOUSTON

29114

INCIDENT NUMBER (S&E ONLY)

9 7 4 0 2 1 5 6

SAP or CRMT NUMBER (TS/CRMT)

1 3 5 7 8 6

DATE: October 9, 2002

PAGE: 1 of 2

SAMPLING COMPANY: KHM Environmental Mangement		LOG CODE: KHMS	SITE ADDRESS (Street and City): 6750 Santa Rita Road, Pleasanton		GLOBAL ID NO.:
ADDRESS: 6284 San Ignacio Ave., San Jose, CA 95119		EDF DELIVERABLE TO (Responsible Party or Designer): Debbie Arnold		PHONE NO.: (408) 224-4724	EMAIL: darnold@khm1.com
PROJECT CONTACT (Hardcopy or PDF Report to): Debbie Arnold		CONSULTANT PROJECT NO.: C81-6750 Santa Rita		LAB USE ONLY	
TELEPHONE: (408) 224-4724	FAX: (408) 224-4518	E-MAIL: darnold@khm1.com	SAMPLER NAME(S) (Print): Jonathan Pearson		

TURNAROUND TIME (BUSINESS DAYS):
 10 DAYS 5 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT UST AGENCY:

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED

Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8280B - 0.5ppb RL)	Oxygenates (5) by (8280B)	Ethanol (8280B)	Methanol	EDB & 1,2-DCA (8280B)	EPA 809B Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (418.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3418m)	Vapor Fixed Gases (ASTM D1948)	Test for Disposal (4B)	TPH - Diesel, Extractable (8015m)	MTBE (809B) Confirmation, See Note	TEMPERATURE ON RECEIPT °C	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes		
	DATE	TIME																								
MW-2 @ 20 feet	10/8/02	10:15	soil	1	X	X			X															-01		
MW-3 @ 20 feet	10/9/02	8:40	soil	1	X	X			X																-02	

Received by: (Signature) 	Date:	Time:
Relinquished by: (Signature)	Date:	Time:
Relinquished by: (Signature) 	Date: 10/10/02	Time: 11:17

720 Olive Drive, Suite D
 Davis, CA 95616
 (530) 297-4800 (530) 297-4803 fax

Equiva Project Manager to be invoiced:

SCIENCE & ENGINEERING Karen Petryna
 TECHNICAL SERVICES
 CRMT HOUSTON

29114

INCIDENT NUMBER (S&E ONLY)

9 7 4 0 2 1 5 6

SAP or CRMT NUMBER (TS/CRMT)

1 3 5 7 8 6

DATE: October 9, 2002

PAGE: 2 of 2

SAMPLING COMPANY: KHM Environmental Mangement		LOG CODE: KHMS	SITE ADDRESS (Street and City): 6750 Santa Rita Road, Pleasanton		GLOBAL ID NO.:
ADDRESS: 6284 San Ignacio Ave., San Jose, CA 95119			EDF DELIVERABLE TO (Responsible Party or Designer):	PHONE NO.:	E-MAIL:
PROJECT CONTACT (hardcopy or PDF Report to): Debbie Arnold			Debbie Arnold		CONSULTANT PROJECT NO.:
TELEPHONE: (408) 224-4724			(408) 224-4724		darnold@khm1.com
FAX: (408) 224-4518			SAMPLER NAME(S) Print: Jonathan Pearson		C81-6750 Santa Rita
E-MAIL: darnold@khm1.com			LAB USE ONLY		

TURNAROUND TIME (BUSINESS DAYS):
 10 DAYS 5 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NEEDED
 Disposal Test includes lead and CAM metals.

REQUESTED ANALYSIS

Lab Use ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8260B - 0.5ppb RL)	Oxygenates (B) by (8260B)	Ethanol (8260E)	Methanol	EDB & 1,2-DCA (8260E)	EPA 5035 Extraction for Volatiles	VOCs Halogenated/Aromatic (8021B)	TRPH (415.1)	Vapor VOCs BTEX / MTBE (TO-15)	Vapor VOCs Full List (TO-15)	Vapor TPH (ASTM 3416m)	Vapor Fiked Gases (ASTM D1946)	Test for Disposal (48-28)	TPH - Diesel, Extractable (8015m)	MTBE (8026E) Confirmation, See Note	TEMPERATURE ON RECEIPT °	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes		
		DATE	TIME																								
	Disposal A	10/8/02	14:00	soil	1																					-03	} 07
	Disposal B	10/8/02	17:00	soil	1																					-04	
	Disposal C	10/9/02	8:45	soil	1																					-05	
	Disposal D	10/9/02	14:08	soil	1																					-06	

Received by: (Signature) 	Date:	Time:
Relinquished by: (Signature)	Date:	Time:
Received by: (Signature) John Carter / Kiff Analytical	Date: 10/10/02	Time: 1117

APPENDIX F

WELL GAUGING DATA

WELL GAUGING DATA

Project # 021204-RH1 Date 12/4/02 Client Shell

Site 6750 Santa Rita Rd. Pleasanton

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TCB or TOC
mw-1	2					31.75	41.10	↓
mw-2	2					31.25	41.60	
mw-3	2					31.65	43.05	
mw-4	2					32.92	44.10	

WELL GAUGING DATA

Project # 021220-552 Date 12/20/02 Client SHELL

Site 6750 SANTA RITA RD. PLASANTIN

Well ID	Well Size (in.)	Sheen / Odor	Depth to Immiscible Liquid (ft.)	Thickness of Immiscible Liquid (ft.)	Volume of Immiscibles Removed (ml)	Depth to water (ft.)	Depth to well bottom (ft.)	Survey Point: TOB or TOC
MW-1	2					31.93	41.75	↓
MW-2	2					30.70	41.90	
MW-3	2					31.10	44.00	
MW-4	2					32.20	44.05	

APPENDIX G

**GROUNDWATER LABORATORY REPORT
AND
CHAIN-OF-CUSTODY DOCUMENTATION**



Report Number : 30559

Date : 1/2/2003

Leon Gearhart
Blaine Tech Services
1680 Rogers Avenue
San Jose, CA 95112-1105

Subject : 4 Water Samples
Project Name : 6750 Santa Rita Rd., Pleasanton
Project Number : 021220-SS2
P.O. Number : 97402156

Dear Mr. Gearhart,

Chemical analysis of the samples referenced above has been completed. Summaries of the data are contained on the following pages. Sample(s) were received under documented chain-of-custody. US EPA protocols for sample storage and preservation were followed.

Kiff Analytical is certified by the State of California (# 2236). If you have any questions regarding procedures or results, please call me at 530-297-4800.

Sincerely,


Joel Kiff



Report Number : 30559

Date : 1/2/2003

Subject : 4 Water Samples
Project Name : 6750 Santa Rita Rd., Pleasanton
Project Number : 021220-SS2
P.O. Number : 97402156

Case Narrative

Hydrocarbons reported as TPH as Diesel do not exhibit a typical Diesel chromatographic pattern for samples MW-1, MW-2 and MW-3.

Approved By:  _____
Joel Kiff



Report Number : 30559

Date : 1/2/2003

Project Name : 6750 Santa Rita Rd., Pleasanton

Project Number : 021220-SS2

Sample : MW-1

Matrix : Water

Lab Number : 30559-01

Sample Date :12/20/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Methyl-t-butyl ether (MTBE)	62	0.50	ug/L	EPA 8260B	12/26/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	12/26/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	12/26/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	12/26/2002
Tert-Butanol	< 50	50	ug/L	EPA 8260B	12/26/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/26/2002
Toluene - d8 (Surr)	94.4		% Recovery	EPA 8260B	12/26/2002
4-Bromofluorobenzene (Surr)	100		% Recovery	EPA 8260B	12/26/2002
TPH as Diesel	81	50	ug/L	M EPA 8015	12/26/2002

Approved By:  Joel Kiff



Report Number : 30559

Date : 1/2/2003

Project Name : 6750 Santa Rita Rd., Pleasanton

Project Number : 021220-SS2

Sample : MW-2

Matrix : Water

Lab Number : 30559-02

Sample Date :12/20/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 2.0	2.0	ug/L	EPA 8260B	12/31/2002
Toluene	< 2.0	2.0	ug/L	EPA 8260B	12/31/2002
Ethylbenzene	< 2.0	2.0	ug/L	EPA 8260B	12/31/2002
Total Xylenes	< 2.0	2.0	ug/L	EPA 8260B	12/31/2002
Methyl-t-butyl ether (MTBE)	660	2.0	ug/L	EPA 8260B	12/31/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	12/31/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	12/31/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	12/31/2002
Tert-Butanol	< 50	50	ug/L	EPA 8260B	12/31/2002
TPH as Gasoline	< 200	200	ug/L	EPA 8260B	12/31/2002
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/31/2002
4-Bromofluorobenzene (Surr)	108		% Recovery	EPA 8260B	12/31/2002
TPH as Diesel	120	50	ug/L	M EPA 8015	12/29/2002

Approved By:  Joel Kiff



Report Number : 30559

Date : 1/2/2003

Project Name : 6750 Santa Rita Rd., Pleasanton

Project Number : 021220-SS2

Sample : MW-3

Matrix : Water

Lab Number : 30559-03

Sample Date :12/20/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 20	20	ug/L	EPA 8260B	12/30/2002
Toluene	< 20	20	ug/L	EPA 8260B	12/30/2002
Ethylbenzene	< 20	20	ug/L	EPA 8260B	12/30/2002
Total Xylenes	< 20	20	ug/L	EPA 8260B	12/30/2002
Methyl-t-butyl ether (MTBE)	8000	20	ug/L	EPA 8260B	12/30/2002
Diisopropyl ether (DIPE)	< 20	20	ug/L	EPA 8260B	12/30/2002
Ethyl-t-butyl ether (ETBE)	< 20	20	ug/L	EPA 8260B	12/30/2002
Tert-amyl methyl ether (TAME)	< 20	20	ug/L	EPA 8260B	12/30/2002
Tert-Butanol	1500	200	ug/L	EPA 8260B	12/30/2002
TPH as Gasoline	< 2000	2000	ug/L	EPA 8260B	12/30/2002
Toluene - d8 (Surr)	94.9		% Recovery	EPA 8260B	12/30/2002
4-Bromofluorobenzene (Surr)	113		% Recovery	EPA 8260B	12/30/2002
TPH as Diesel	72	50	ug/L	M EPA 8015	12/29/2002

Approved By:  Joel Kiff



Report Number : 30559

Date : 1/2/2003

Project Name : 6750 Santa Rita Rd., Pleasanton

Project Number : 021220-SS2

Sample : MW-4

Matrix : Water

Lab Number : 30559-04

Sample Date :12/20/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/29/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/29/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/29/2002
Methyl-t-butyl ether (MTBE)	93	0.50	ug/L	EPA 8260B	12/29/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	12/29/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	12/29/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	12/29/2002
Tert-Butanol	< 50	50	ug/L	EPA 8260B	12/29/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/29/2002
Toluene - d8 (Surr)	101		% Recovery	EPA 8260B	12/29/2002
4-Bromofluorobenzene (Surr)	97.1		% Recovery	EPA 8260B	12/29/2002
TPH as Diesel	< 50	50	ug/L	M EPA 8015	12/29/2002

Approved By:  Joel Kiff

QC Report : Method Blank Data

Project Name : **6750 Santa Rita Rd., Pleasanton**

Project Number : **021220-SS2**

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
TPH as Diesel	< 50	50	ug/L	MEPA 8015	12/26/2002
TPH as Diesel	< 50	50	ug/L	MEPA 8015	12/29/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/30/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/30/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/30/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/30/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/30/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	12/30/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	12/30/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	12/30/2002
Tert-Butanol	< 50	50	ug/L	EPA 8260B	12/30/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/30/2002
Toluene - d8 (Surr)	94.8		%	EPA 8260B	12/30/2002
4-Bromofluorobenzene (Surr)	107		%	EPA 8260B	12/30/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	12/28/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	12/28/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	12/28/2002
Tert-Butanol	< 50	50	ug/L	EPA 8260B	12/28/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/28/2002
Toluene - d8 (Surr)	99.7		%	EPA 8260B	12/28/2002
4-Bromofluorobenzene (Surr)	99.7		%	EPA 8260B	12/28/2002

Parameter	Measured Value	Method Reporting Limit	Units	Analysis Method	Date Analyzed
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/26/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	12/26/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	12/26/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	12/26/2002
Tert-Butanol	< 50	50	ug/L	EPA 8260B	12/26/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/26/2002
Toluene - d8 (Surr)	86.8		%	EPA 8260B	12/26/2002
4-Bromofluorobenzene (Surr)	100		%	EPA 8260B	12/26/2002
Benzene	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Toluene	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Ethylbenzene	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Total Xylenes	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Methyl-t-butyl ether (MTBE)	< 0.50	0.50	ug/L	EPA 8260B	12/28/2002
Diisopropyl ether (DIPE)	< 2.0	2.0	ug/L	EPA 8260B	12/28/2002
Ethyl-t-butyl ether (ETBE)	< 2.0	2.0	ug/L	EPA 8260B	12/28/2002
Tert-amyl methyl ether (TAME)	< 2.0	2.0	ug/L	EPA 8260B	12/28/2002
Tert-Butanol	< 50	50	ug/L	EPA 8260B	12/28/2002
TPH as Gasoline	< 50	50	ug/L	EPA 8260B	12/28/2002
Toluene - d8 (Surr)	100		%	EPA 8260B	12/28/2002
4-Bromofluorobenzene (Surr)	99.0		%	EPA 8260B	12/28/2002

Approved By: Joel Kiff

QC Report : Matrix Spike/ Matrix Spike Duplicate

Project Name : 6750 Santa Rita Rd.,

Project Number : 021220-SS2

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
Benzene	30565-09	<0.50	39.6	39.7	37.3	36.1	ug/L	EPA 8260B	12/31/02	94.2	91.0	3.48	70-130	25
Toluene	30565-09	<0.50	39.6	39.7	33.9	34.0	ug/L	EPA 8260B	12/31/02	85.7	85.8	0.146	70-130	25
Tert-Butanol	30565-09	<5.0	198	198	175	197	ug/L	EPA 8260B	12/31/02	88.3	99.2	11.6	70-130	25
Methyl-t-Butyl Ether	30565-09	<0.50	39.6	39.7	37.2	38.3	ug/L	EPA 8260B	12/31/02	93.9	96.6	2.89	70-130	25
Benzene	30638-05	<0.50	40.0	40.0	39.6	39.2	ug/L	EPA 8260B	12/28/02	99.1	98.0	1.17	70-130	25
Toluene	30638-05	<0.50	40.0	40.0	37.7	37.6	ug/L	EPA 8260B	12/28/02	94.2	94.0	0.239	70-130	25
Tert-Butanol	30638-05	11	200	200	212	214	ug/L	EPA 8260B	12/28/02	100	102	1.15	70-130	25
Methyl-t-Butyl Ether	30638-05	55	40.0	40.0	87.7	88.8	ug/L	EPA 8260B	12/28/02	80.8	83.6	3.41	70-130	25
Benzene	30559-01	<0.50	40.0	40.0	41.2	41.6	ug/L	EPA 8260B	12/26/02	103	104	0.797	70-130	25
Toluene	30559-01	<0.50	40.0	40.0	34.5	35.0	ug/L	EPA 8260B	12/26/02	86.2	87.4	1.50	70-130	25
Tert-Butanol	30559-01	18	200	200	250	239	ug/L	EPA 8260B	12/26/02	116	110	4.80	70-130	25
Methyl-t-Butyl Ether	30559-01	62	40.0	40.0	100	99.9	ug/L	EPA 8260B	12/26/02	95.2	94.5	0.764	70-130	25
Benzene	30636-02	<0.50	40.0	40.0	40.5	39.7	ug/L	EPA 8260B	12/28/02	101	99.3	1.87	70-130	25
Toluene	30636-02	<0.50	40.0	40.0	39.0	38.6	ug/L	EPA 8260B	12/28/02	97.4	96.6	0.825	70-130	25
Tert-Butanol	30636-02	<5.0	200	200	202	195	ug/L	EPA 8260B	12/28/02	101	97.7	3.32	70-130	25
Methyl-t-Butyl Ether	30636-02	<0.50	40.0	40.0	38.7	38.5	ug/L	EPA 8260B	12/28/02	96.8	96.2	0.647	70-130	25
TPH as Diesel	Blank	<50	1000	1000	962	919	ug/L	M EPA 8015	12/26/02	96.2	91.9	4.54	70-130	25

Approved By: Joel Kiff

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Report Number : 30559

Date : 1/2/2003

QC Report : Matrix Spike/ Matrix Spike Duplicate


Project Name : 6750 Santa Rita Rd.,

Project Number : 021220-SS2

Parameter	Spiked Sample	Sample Value	Spike Level	Spike Dup. Level	Spiked Sample Value	Duplicate Spiked Sample Value	Units	Analysis Method	Date Analyzed	Spiked Sample Percent Recov.	Duplicate Spiked Sample Percent Recov.	Relative Percent Diff.	Spiked Sample Percent Recov. Limit	Relative Percent Diff. Limit
TPH as Diesel	Blank	<50	1000	1000	1050	1100	ug/L	M EPA 8015	12/29/02	105	110	4.40	70-130	25

KIFF ANALYTICAL, LLC

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

Approved By:  Joel Kiff

Report Number : 30559

Date : 1/2/2003

QC Report : Laboratory Control Sample (LCS)

Project Name : 6750 Santa Rita Rd.,

Project Number : 021220-SS2

Parameter	Spike Level	Units	Analysis Method	Date Analyzed	LCS Percent Recov.	LCS Percent Recov. Limit
Benzene	40.0	ug/L	EPA 8260B	12/30/02	105	70-130
Toluene	40.0	ug/L	EPA 8260B	12/30/02	95.6	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/30/02	85.7	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/30/02	101	70-130
Benzene	40.0	ug/L	EPA 8260B	12/28/02	92.8	70-130
Toluene	40.0	ug/L	EPA 8260B	12/28/02	92.8	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/28/02	97.9	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/28/02	81.0	70-130
Benzene	40.0	ug/L	EPA 8260B	12/26/02	100	70-130
Toluene	40.0	ug/L	EPA 8260B	12/26/02	95.4	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/26/02	115	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/26/02	103	70-130
Benzene	40.0	ug/L	EPA 8260B	12/28/02	98.9	70-130
Toluene	40.0	ug/L	EPA 8260B	12/28/02	95.3	70-130
Tert-Butanol	200	ug/L	EPA 8260B	12/28/02	95.1	70-130
Methyl-t-Butyl Ether	40.0	ug/L	EPA 8260B	12/28/02	93.8	70-130

KIFF ANALYTICAL, LLC

Approved By:  Joel Kiff

2795 2nd St, Suite 300 Davis, CA 95616 530-297-4800

LAB: KIPP

SHELL Chain Of Custody Record

Lab Identification (if necessary):

Address:

City, State, Zip:

Shell Project Manager to be Invoiced:

- SCIENCE & ENGINEERING
- TECHNICAL SERVICES
- OMT HOUSTON

Lynn Walker

30559

INCIDENT NUMBER (SEE ONLY)

9 7 4 0 2 1 5 6

SAP or CRMT NUMBER (TS/CRMT)

DATE: 12/20/02

PAGE: 1 of 1

SAMPLING COMPANY: Blaine Tech Services		LOG CODE: BTSS	SITE ADDRESS (Street and City): 6750 Santa Rita Rd., Pleasanton		GLOBAL ID NO.: pending
ADDRESS: 1680 Rogers Avenue, San Jose, CA 95112		EDF DELIVERABLE TO (Responsible Party or Designer): Debbie Arnold		PHONE NO.: (408)224-4724	E-MAIL: darnold@khm1.com
PROJECT CONTACT (Hardcopy or PDF Report to): Leon Gearhart		SAMPLER NAME(S) (Print): SUTTON SUB		CONSULTANT PROJECT NO.: BTS # 0220-552	
TELEPHONE: 408-573-0555	FAX: 408-573-7771	E-MAIL: lgearhart@blainetech.com			

TURNAROUND TIME (BUSINESS DAYS):
 10 DAYS 5 DAYS 72 HOURS 48 HOURS 24 HOURS LESS THAN 24 HOURS

LA - RWQCB REPORT FORMAT UST AGENCY: _____

GC/MS MTBE CONFIRMATION: HIGHEST _____ HIGHEST per BORING _____ ALL _____

SPECIAL INSTRUCTIONS OR NOTES: CHECK BOX IF EDD IS NOT NEEDED

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING		MATRIX	NO. OF CONT.	TPH - Gas, Purgeable	BTEX	MTBE (8021B - 5ppb RL)	MTBE (8280B - 0.5ppb RL)	Oxygenates (5) by (8280B)	TPH - Diesel, Extractable	TEMPERATURE ON RECEIPT °C	FIELD NOTES: Container/Preservative or PID Readings or Laboratory Notes
		DATE	TIME										
	MW-1	12/20/02	1350	GW	5	X	X			X	X	-01	
	MW-2	↓	1300	↓	↓	X	X			X	X	-02	
	MW-3	↓	1245	↓	↓	X	X			X	X	-03	
	MW-4	↓	1158	↓	↓	X	X			X	X	-04	

Relinquished by: (Signature) 	Received by: (Signature) 	Date: <u>12/23/02</u>	Time: <u>1017</u>
Relinquished by: (Signature) _____	Received by: (Signature) _____	Date: _____	Time: _____
Relinquished by: (Signature) _____	Received by: (Signature) <u>John Cottle/Kill Analytical</u>	Date: <u>12/23/02</u>	Time: <u>1017</u>

APPENDIX H

UNAUTHORIZED RELEASE REPORT

UNDERGROUND STORAGE TANK UNAUTHORIZED RELEASE (LEAK) / CONTAMINATION SITE REPORT

EMERGENCY <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		HAS STATE OFFICE OF EMERGENCY SERVICES REPORT BEEN FILED? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		FOR LOCAL AGENCY USE ONLY I HEREBY CERTIFY THAT I HAVE DISTRIBUTED THIS INFORMATION ACCORDING TO THE DISTRIBUTION SHOWN ON THE INSTRUCTION SHEET ON THE BACK PAGE OF THIS FORM.	
REPORT DATE 01/10/03		CASE #		SERIES _____ DATE _____	
REPORTED BY	NAME OF INDIVIDUAL FILING REPORT Karen Petryna		PHONE 1557645-9306		SIGNATURE <i>Karen Petryna</i>
	REPRESENTING <input checked="" type="checkbox"/> OWNER/OPERATOR <input type="checkbox"/> REGIONAL BOARD <input type="checkbox"/> LOCAL AGENCY <input type="checkbox"/> OTHER		COMPANY OR AGENCY NAME Shell Oil Products US		
	ADDRESS P.O. Box 7869 Burbank CA 91510				
RESPONSIBLE PARTY	NAME Shell Oil Products US <input type="checkbox"/> UNKNOWN		CONTACT PERSON Karen Petryna		PHONE 1557645-9306
	ADDRESS 2255 N. Ontario Burbank CA 91504				
SITE LOCATION	FACILITY NAME (IF APPLICABLE) Shell Service Station		OPERATOR		PHONE ()
	ADDRESS 6750 Santa Rita Rd Pleasanton Alameda 94588				
	CROSS STREET Pimlico Dr				
IMPLICATED AGENCIES	LOCAL AGENCY Livermore-Pleasanton Fire Department		CONTACT PERSON Danielle Stefani		PHONE 19251454-2338
	REGIONAL BOARD San Francisco Bay Region, RWQCB Chuck Headlee PHONE 15101286-0435				
SUBSTANCES INVOLVED	(1) MTBE, TPH-D, Test - Butanol				QUANTITY LOST (GALLONS) <input checked="" type="checkbox"/> UNKNOWN
	(2)				<input type="checkbox"/> UNKNOWN
DISCOVERY/ABATEMENT	DATE DISCOVERED 01/10/03		HOW DISCOVERED <input type="checkbox"/> TANK TEST <input type="checkbox"/> TANK REMOVAL <input checked="" type="checkbox"/> INVENTORY CONTROL <input checked="" type="checkbox"/> SUBSURFACE MONITORING <input type="checkbox"/> SURFACE CONDITIONS		OTHER
	DATE DISCHARGE BEGAN _____		METHOD USED TO STOP DISCHARGE (CHECK ALL THAT APPLY) <input type="checkbox"/> REMOVE CONTENTS <input type="checkbox"/> CLOSE TANK & REMOVE <input type="checkbox"/> REPAIR PIPING <input type="checkbox"/> REPAIR TANK <input type="checkbox"/> CLOSE TANK & FILL IN PLACE <input type="checkbox"/> CHANGE PROCEDURE <input type="checkbox"/> REPLACE TANK <input type="checkbox"/> OTHER		
	HAS DISCHARGE BEEN STOPPED? <input type="checkbox"/> YES <input type="checkbox"/> NO IF YES, DATE _____				
SOURCE/CAUSE	SOURCE OF DISCHARGE <input type="checkbox"/> TANK LEAK <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> PIPING LEAK <input type="checkbox"/> OTHER		CAUSE(S) <input type="checkbox"/> OVERFILL <input type="checkbox"/> RUPTURE/FAILURE <input type="checkbox"/> SPILL <input type="checkbox"/> CORROSION <input checked="" type="checkbox"/> UNKNOWN <input type="checkbox"/> OTHER		
	CASE TYPE <input type="checkbox"/> UNDETERMINED <input type="checkbox"/> SOIL ONLY <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> DRINKING WATER - (CHECK ONLY IF WATER WELLS HAVE ACTUALLY BEEN AFFECTED)				
CURRENT STATUS	CHECK ONE ONLY <input type="checkbox"/> NO ACTION TAKEN <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT WORKPLAN SUBMITTED <input type="checkbox"/> POLLUTION CHARACTERIZATION <input checked="" type="checkbox"/> LEAK BEING CONFIRMED <input type="checkbox"/> PRELIMINARY SITE ASSESSMENT UNDERWAY <input type="checkbox"/> POST-CLEANUP MONITORING IN PROGRESS <input type="checkbox"/> REMEDIATION PLAN <input type="checkbox"/> CASE CLOSED (CLEANUP COMPLETED OR UNNECESSARY) <input type="checkbox"/> CLEANUP UNDERWAY				
	CHECK APPROPRIATE ACTION(S) <input type="checkbox"/> EXCAVATE & DISPOSE (ED) <input type="checkbox"/> REMOVE FREE PRODUCT (FP) <input type="checkbox"/> ENHANCED BIO-DEGRADATION (BT) <input type="checkbox"/> CAP SITE (CS) <input type="checkbox"/> EXCAVATE & TREAT (ET) <input type="checkbox"/> PUMP & TREAT GROUNDWATER (PT) <input type="checkbox"/> REPLACE SUPPLY (RS) <input type="checkbox"/> CONTAMINANT BARRIER (CB) <input type="checkbox"/> NO ACTION REQUIRED (NA) <input type="checkbox"/> TREATMENT AT HOOKUP (HL) <input type="checkbox"/> VENT SOIL (VS) <input type="checkbox"/> VACUUM EXTRACT (VE) <input checked="" type="checkbox"/> OTHER (OT) <u>Monitor Groundwater</u>				
COMMENTS	Groundwater Samples from new monitoring wells				
	Max MTBE = 8000 ug/L, Max TPH-D = 120 ug/L, Max TBA = 1500 ug/L				