



October 4, 2002

California Regional Water Quality Control Board (CRWQCB)
San Diego Region
9771 Clairemont Mesa Boulevard, Suite B
San Diego, California 92126

ATTN: MR. BARRY PULVER

SITE: 76 STATION 6519
28903 RANCHO CALIFORNIA ROAD
TEMECULA, CALIFORNIA
HMD CASE NO. 89382

RE: WORKPLAN FOR AQUIFER PUMP TEST

Dear Mr. Pulver:

This workplan has been prepared by TRC Alton Geoscience, Inc. (TRC) on behalf of Tosco Corporation (Tosco) to participate in the Rancho California Water District (RCWD) well 118 aquifer pumping test in the vicinity of 76 Products Station 6519, 28903 Rancho California Road, Temecula, California (the Site; Figure 1).

1.0 OBJECTIVE

The objective of the scope of work presented herein is to assess whether or not the groundwater flow beneath the site is affected by the pumping of RCWD well 118 in accordance with CRWQCB Investigation Order No. R9-2002-318

2.0 SCOPE OF WORK

It is anticipated that RCWD well 118 will be pumped at a constant rate by the RCWD beginning at 6:00 am on Tuesday, October 22, 2002 and will cease pumping at 6:00 am on Friday October 25, 2002 (72 hours). To meet the objective, TRC will conduct the following:

Workplan for Aquifer Testing

76 Products Station 6519, 28903 Rancho California Road, Temecula, California
October 4, 2002

2.1 WATER LEVEL MONITORING

Pre-Groundwater Pumping Monitoring: Prior to the start of pumping from well 118, TRC will monitor the depth to groundwater in all 76 Station 6519 monitor wells not located in public streets unless they will be monitored using pressure transducers as part of the test. The purpose of this is to generate pre-pumping test groundwater flow and gradient map(s).

Pressure Transducer Monitoring During Pumping: Using pressure transducers inserted into each well, monitor the depth to groundwater in wells MW-16, MW-18, MW-19B, MW-20A, MW-20B, MW-23A, MW-23B, MW-23C, MW-25B and MW-26C prior to, during and following the pumping test (Figure 2). The transducers will begin collecting data on Friday October 18, 2002 and continue to collect data through the pumping and recovery phase of the aquifer test. The water levels and operation time in the observation wells will be monitored and recorded during the aquifer test.

The purpose of this pressure transducer monitoring is to assess the response of the deeper aquifer, the aquitard and water table aquifer to pumping. A silt aquitard ranging from 15 to 35 feet thick appears to be protecting the deeper groundwater aquifer pumped by well 118 from the shallow petroleum hydrocarbons at the 76 station. This silt layer has consistently been observed at the 76 station as well as in offsite drilling. Although occasional sand lenses were observed within the silt layer, the thickness, continuity, and low permeability of the silt appear adequately defined by TRC's recent offsite drilling. No evidence of a break in the silt layer, i.e. a natural vertical conduit through the silt layer, was identified during this investigation, nor did any boring of adequate depth fail to encounter the silt aquitard (TRC, 2002). These wells were selected for pressure transducers based on their location in relation to the pumping well and the site, and the screen interval of the wells, which occur in all three zones (deeper aquifer, aquitard, and water table aquifer).

Boring logs and well construction diagrams are included in Appendix A.

Groundwater Pumping Monitoring: Prior to the stopping of active pumping in well 118, TRC will again monitor the depth to groundwater in all 76 Station 6519 monitor wells not located in public streets. The purpose of this is to generate pumping test groundwater flow and gradient map(s).

Post Groundwater Pumping Monitoring: Approximately 72 hours post groundwater pumping, TRC will again monitor the depth to groundwater in all 76 Station 6519 monitor wells not located in public streets. The purpose of this is to generate a post pumping groundwater flow and gradient map(s).

Workplan for Aquifer Testing

76 Products Station 6519, 28903 Rancho California Road, Temecula, California

October 4, 2002

2.2 METHODS OF ANALYSIS

To facilitate the assessment of whether or not the groundwater flow beneath the site is affected by the pumping of RCWD well 118, the following analysis will be conducted:

- Figures illustrating the pre-pumping and pumping groundwater flow direction and gradient of the water table aquifer, aquitard, and deeper aquifer will be prepared;
- Figures illustrating the change in water table (isopach) from pre-pumping to pumping for the water table aquifer, aquitard, and deeper aquifer will be prepared;
- Graphs of the depth to water versus time will be prepared for the wells that contained pressure transducers; and
- Analytical assessment of the transmissivity and hydraulic conductivity of the deeper aquifer will be conducted using extraction well data and well MW-26C data. As appropriate based on response, other wells screened within the deeper aquifer may also be used in this analysis. The analysis will be conducted using a confined aquifer method, leaky or not, as appropriate based on field data.

3.0 REPORTING

After the completion of the aquifer pumping test, a data report and a separate technical report will be submitted to the CRWQCB. The data report will include tables of depth to water, groundwater elevations, and times since the aquifer test began for each well monitored.

The technical report will include the following: a description of the methods used to collect and evaluate groundwater elevation data, figures illustrating the groundwater flow direction and gradient for the different water bearing zones, estimates of transmissivity and hydraulic conductivity for the deeper aquifer, an interpretation of the data regarding whether or not the site overlies the capture zone of RCWD well 118, interpretations regarding the effect of well 118 on water levels and solute transport at the site, an assessment of the risk to well 118 from dissolved-phase petroleum hydrocarbons originating from the 76 station, and appropriate supporting documentation.

Workplan for Aquifer Testing

76 Products Station 6519, 28903 Rancho California Road, Temecula, California
October 4, 2002

4.0 SCHEDULE

The following schedule will be adhered to as stated in the RWQCB Investigation Order No R9-2002-318 dated September 24, 2002:

- Start pressure transducer monitoring, Friday, October 18, 2002 and stop monitoring by Tuesday, October 29, 2002;
- Conduct aquifer pumping test using RCWD well 118 as the discharge well - October 22, 2002 through October 25, 2002 or until the observation wells have recovered sufficiently to provide sufficient data to calculate accurate aquifer parameters;
- Submit a test data report to the CRWQCB – December 2, 2002; and
- Submit a technical report to the CRWQCB – January 17, 2003.


5.0 REFERENCE

TRC, 2002, Site Assessment, 76 Station 6519, 28903 Rancho California Road, Temecula, California, dated August 28.

Please call us at (858) 505-8881 if you have any questions.


Sincerely,

TRC

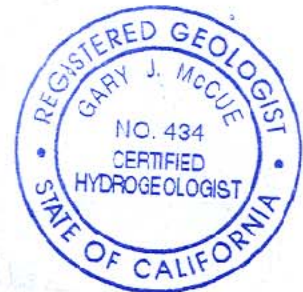


Joe Caruso

Project Hydrogeologist



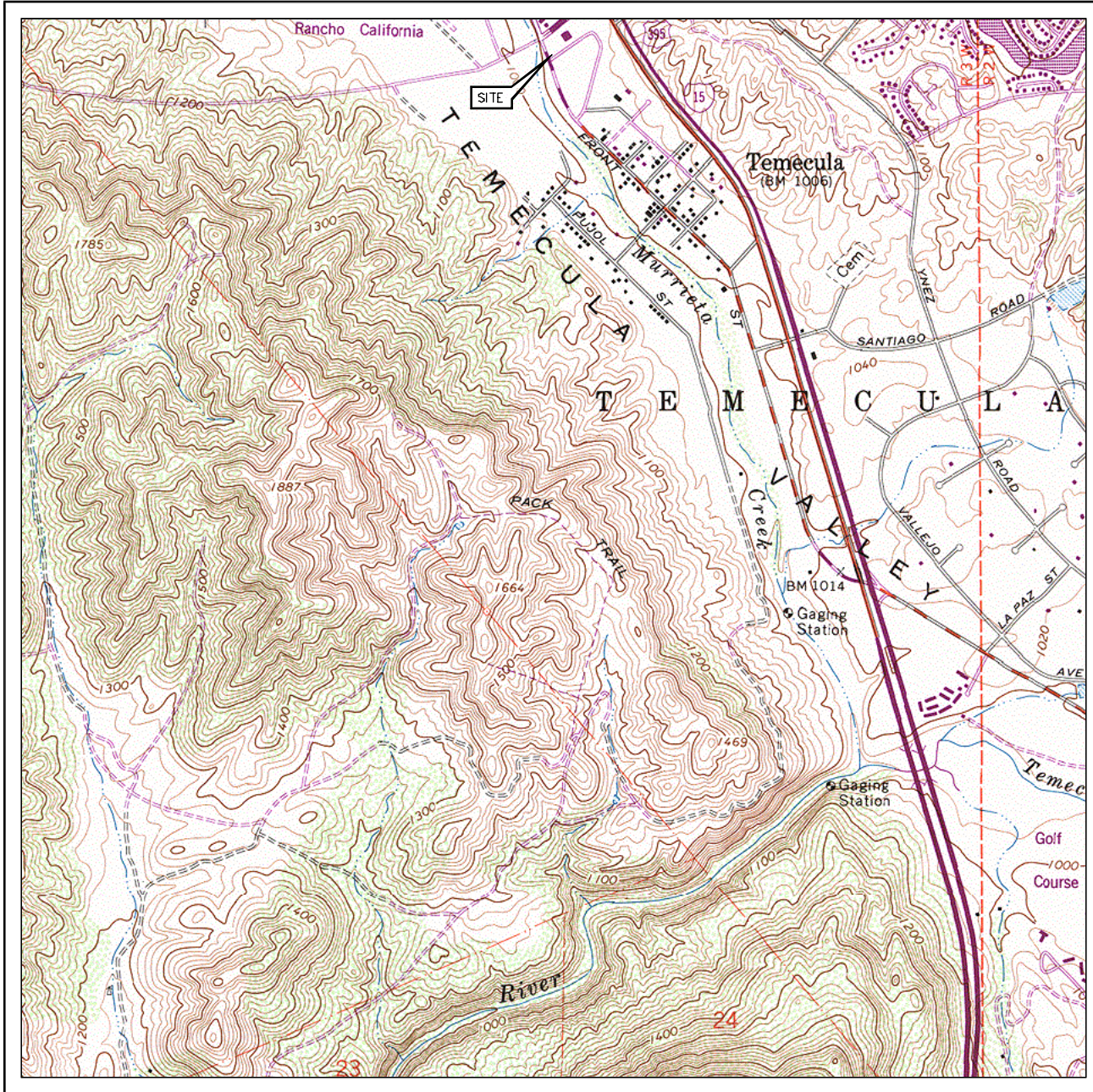
Gary J. McCue, RG 5886, CHG 434
Principal Hydrogeologist



Enclosures: Figures 1 and 2
Appendix A: Boring Logs and Well Construction Diagrams.

cc: Mr. Dan Fischman, Tosco Marketing
Mr. Ian Hutchison, TRC

600121; G:\Projects\76prod\6519\Workplan\6519wp5.doc



0 1/4 1/2 3/4 1 MILE



SCALE 1:24,000

SOURCE:

United States Geological Survey
7.5 Minute Topographic Map:
Temecula Quadrangles



QUADRANGLE
LOCATION

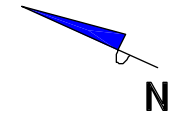
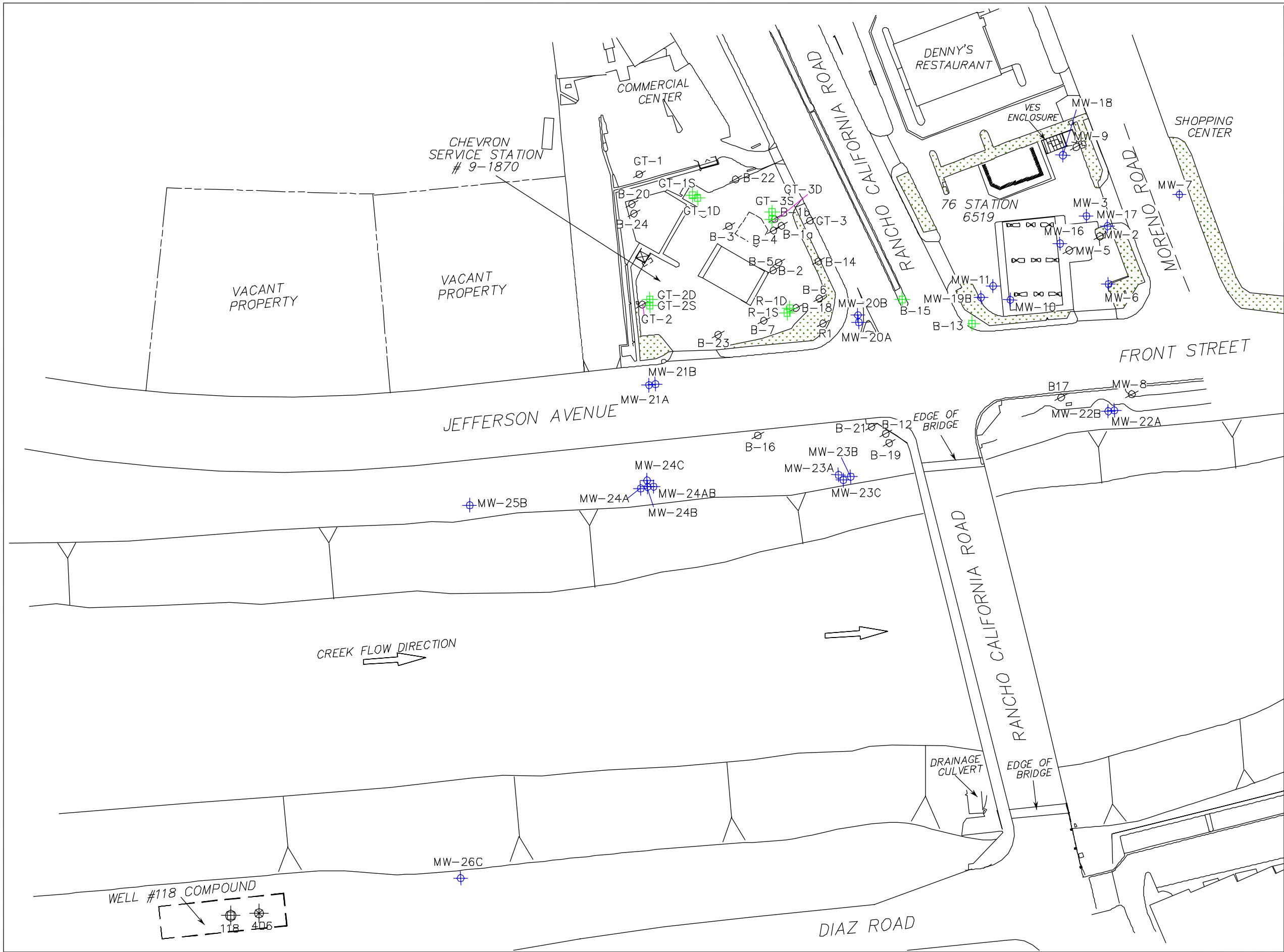
INDEX MAP

76 Station 6519
28903 Rancho California Road
Temecula, California

TRC

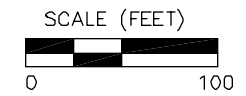
FIGURE 1

PS=1:1



LEGEND

- MW-18 76 Monitoring Well
- B-15 Chevron Monitoring Well
- MW-9 Abandoned Well
- 118 Rancho California Water District Production Well
- 406 Rancho California Water District Monitoring Well



NOTES:
 USTs = underground storage tanks. VES = vapor extraction system. All dimensions and locations are estimated.

SOURCE:
 Figures redrawn from blueprints by Harding Lawson and Associates. Chevron Ground and Grade Plan, blueprints by Holmes and Narver, aerial survey provided by Project Design Consultant, and survey provided by O.K.O. Engineering Inc. Chevron monitoring wells installed by Groundwater Technology, and Harding Lawson and Associates. 76 monitoring wells installed by TRC.

SITE PLAN

76 Station 6519
 28903 Rancho California Road
 Temecula, California



FIGURE 2

**APPENDIX A
BORING LOGS AND WELL
CONSTRUCTION DIAGRAMS**

**LITHOLOGY
(UNIFIED SOIL CLASSIFICATION SYSTEM)**

MAJOR DIVISIONS			TYPICAL NAMES		
COARSE-GRAINED SOILS MORE THAN HALF IS LARGER THAN No. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN No. 4 SIEVE SIZE	CLEAN GRAVELS WITH LITTLE OR NO FINES	GW		WELL-GRADED GRAVELS, GRAVEL-SAND MIXTURES, LITTLE OR NO FINES
			GP		POORLY-GRADED GRAVELS, GRAVEL-SAND MIXTURES
		GRAVELS WITH OVER 12% FINES	GM		SILTY GRAVELS, GRAVEL-SAND-SILT MIXTURES
			GC		CLAYEY GRAVELS, GRAVEL-SAND-CLAY MIXTURES
	SANDS MORE THAN HALF COARSE FRACTION IS SMALLER THAN No. 4 SIEVE SIZE	CLEAN SANDS WITH LITTLE OR NO FINES	SW		WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
			SP		POORLY-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH OVER 12% FINES	SM		SILTY SANDS, SAND-SILT MIXTURES
			SC		CLAYEY SANDS, SAND-CLAY MIXTURES
FINE-GRAINED SOILS MORE THAN HALF IS SMALLER THAN No. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT LESS THAN 50		ML		INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
			CL		INORGANIC CLAYS OF LOW- TO MEDIUM-PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
			OL		ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50		MH		INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
			CH		INORGANIC CLAYS OF HIGH PLASTICITY, FAT CLAYS
			OH		ORGANIC CLAYS OF MEDIUM- TO HIGH-PLASTICITY, ORGANIC SILTS
HIGHLY ORGANIC SOILS			Pt		PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

MAJOR CONSTITUENT, COLOR, DENSITY, MOISTURE, GRAIN SIZE, MINOR CONSTITUENT, GRADING, COMMENTS

SYMBOLS AND NOTES

SAMPLE INTERVAL

SAMPLE NOT RECOVERED

BENTONITE

CONCRETE

BENTONITE GROUT

FILTER SAND PACK

STATIC WATER LEVEL

WATER LEVEL
ENCOUNTERED WHEN
DRILLING

CLAST SIZE (Field Classification)

Gravel = > 0.2 inches
Sand = 0.003 - 0.2 inches
Silt = < 0.003 (not plastic)
Clay = < 0.003 (plastic)

SANDS

4 - 10 blows per foot = Loose
10 - 30 blows per foot = Medium Dense
30 - 50 blows per foot = Dense
>50 blows per foot = Very Dense

DESCRIPTORS

Trace = 1% - 5%
Some = 6% - 10%
With = 11% - 25%
-ly = 26% - 40%
And = >40%

SILTS & CLAYS

2 - 4 blows per foot = Soft
4 - 8 blows per foot = Medium Stiff
8 - 15 blows per foot = Stiff
15 - 30 blows per foot = Very Stiff
> 30 blows per foot = Hard

USCS = Unified Soil Classification System
ppm = Parts Per Million (mg/Kg)
fbg = feet below grade

PID = Photoionization Detector
CGI = Combustible Gas Indicator

TRC

KEY TO BORING LOG

PROJECT NO.: 600121-24
 LOCATION: Unocal Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: August 14, 1996
 LOGGED BY: T. Robins
 APPROVED BY: M. Cassidy
 DRILLING CO.: Cascade Drilling

BLOWS PER 6 INCHES	CGI (ppm)	TPH (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: CME 75 HT Hollow Stem Auger	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
				SAMPLER TYPE: N/A			
				TOTAL DEPTH: 25 feet DEPTH TO WATER: 17 feet			
				CASING ELEVATION: ~1,000 feet above mean sea level			
DESCRIPTION							
	0		0	Surface Material: Concrete. Air Knife to 5 feet below grade.			Utility box with locking cap
				Silty SAND: moist, grayish orange (10yr 7/4), fine- to medium-grained; (Fill).			Concrete
	60		5	Clayey Silty SAND: moist, grayish olive green (5gy 3/2), fine-grained.	SM		4" diameter PVC casing
							Bentonite Grout
	300		10				
							Bentonite Chips
	500		15	Slightly Silty SAND: moist, light gray.	SW		No. 3 Monterey Sand
							▽
	200		20	Sandy SILT: wet, light olive gray (5y 5/2), some clay.	ML		
							End cap
			25				
			30				
			35				
			40				

TRC

LOG OF EXPLORATORY BORING

MW-16

PAGE 1 OF 1

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: May 24, 2001
 LOGGED BY: T. Wirths
 APPROVED BY: G. McCue, RG
 DRILLING CO.: Gregg Drilling, Inc.

BLOWS PER 6 INCHES	CGI (ppm)	TPH (ppm)	SAMPLE DEPTH (feet below grade)	DRILLING METHOD: Hollow Stem Auger SAMPLER TYPE: California Modified Split Spoon TOTAL DEPTH: 30.5 feet DEPTH TO WATER: ≈21 feet CASING ELEVATION: 1008.00		USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
				DESCRIPTION				
			0	Surface Material: Asphaltic Concrete. Hand-augered to 5 feet below grade. Backfill material of silty sand.				Utility box with locking cap Concrete Bentonite Chips Bentonite Grout
10/12/16	0	ND	5	CLAYEY SILTY SAND: dark grayish brown, dense, moist, very fine -to- fine sand, some medium sand.		SC		4" diameter Schedule 40 PVC blank casing
9/10/12	0	ND	10	SAND: light brownish gray, moist, very fine -to- medium sand, trace coarse sand, some mica.		SP		4" diameter Schedule 40 PVC casing 0.010" slotting
16/18/21	0	ND	15	SAND: gray, wet, some coarse sand. SAND: very dense. SAND: greenish black, trace coarse sand.				#2/16 Sand
17/40/50	0	ND		SAND: dark greenish gray, very dense, saturated, very fine -to- coarse sand, trace silt.				
22/26/28	0	ND		SAND: trace to some silt, some fine gravel.		SW		
20/27/30	0	ND	20	SILTY SAND: dark greenish gray, very dense, damp to moist, very fine -to- medium sand,.		SM		
16/23/29	0	ND		SAND: very dark gray, very dense, damp to moist, very fine -to- fine sand, trace to some silt, some mica.		SP		
22/50	0	ND	25					End cap
22/28/47	0	ND	30	SAND: trace medium sand, trace coarse sand.				
				Bottom of boring 30.5 fbg.				



LOG OF EXPLORATORY BORING

MW-18

PAGE 1 OF 1

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 26-27, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: 6 - inch Core Barrel			
							0	Asphalt			
							1	Fill, very dark grayish brown (2.5Y 3/2), moist, sand and gravel, medium grained sand fill, some concrete debris			
							2	Fill, dark grayish brown (2.5Y 4/2), clay, silt and sand, medium plastic to low plasticity			
							3				
							4	Sand, light olive brown (2.5Y 5/3), damp, medium and fine grained sand, some silt, some clay, non-plastic			
4.2							5	Sand, olive brown (2.5Y 4/3), wet, fine, medium and coarse grained sand with gravel, with silt, some clay, water from drill rig	SP		
							6				
6.5							7				
5.7							8	Silt, olive brown (2.5Y 4/3), damp, silt with clay with medium and fine grained sand, medium plastic, trace gravel	ML		
				55.84	10.07	65.91	9	Sand, olive brown (2.5Y 4/3), damp, medium and fine grained sand with clay, low plasticity	SC		
10.9							10				
12.6							11	Sand, dark grayish brown (2.5Y 4/2), wet, medium and fine grained sand with gravel, some silt	SP		
							12	Sand, light olive brown (2.5Y 5/3), wet, coarse and medium grained sand	SP		
15.3							13	Sand and Silt, very dark greenish gray (Gley 1 3/1), moist, fine grained sand, non-plastic	SM		
14.4							13	Sand, olive brown (2.5Y 4/3), wet, coarse grained sand with gravel with medium grained sand	SP		
							13	Sand, very dark greenish gray (Gley 1 3/1), wet, fine and medium graind sand	SP		
							14	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with gravel with coarse grained sand, some fine grained sand, trace silt	SP		
19.8							15				
120							16	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, some coarse grained sand, some gravel	SP		
							17				
191							18				
478		ND<0.005					19				
							20				
223							20	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand with gravel, some silt	SP		
58							21				
							22	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand, some coarse grained sand, some fine grained sand	SP		
241		ND<0.005					23	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with gravel, some fine grained sand	SP		
63.5							23	Silty Sand, very dark greenish gray (Gley 1 3/1), moist, fine grained sand, non-plastic, non-cohesive	SM ML		
							24	Silt and Sand, very dark greenish gray (Gley 1 3/1), damp/moist, fine grained sand, some clay, cohesive			
70.8		ND<0.005					25				
28.3							25	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace silt	SP		
							26	Silt, very dark greenish gray (Gley 1 3/1), moist, silt with clay with fine grained sand, low plasticity, cohesive	ML		



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 26-27, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19.5 feet TOTAL DEPTH: 70 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
				*	*	8.44	27	Silt and Sand, very dark greenish gray (Gley 1 3/1), moist, fine grained sand, some clay, non-plastic, cohesive	ML		
72.6				56.13	11.55	67.68	28	Sand, very dark greenish gray (Gley 1 3/1), moist, fine grained sand with silt, trace clay, non-cohesive	SM		
12.7							29				
							30	Silt and Sand, very dark greenish gray (Gley 1 3/1), moist, fine grained sand, trace clay	ML		
45.2							31				
13.3							32				
							33	Sand and Silt, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, low plasticity, non-cohesive	SM		
12.6							34				
4.8		ND<0.005		47.16	5.71	52.87	35	Silt and Sand, very dark greenish gray (Gley 1 3/1), moist/damp, fine grained sand with clay, low plasticity, cohesive	ML		
							36	Silt and Clay, very dark greenish gray (Gley 1 3/1), damp, with fine grained sand, low plasticity, cohesive	ML		
4.2							37				
1.4							38	Silt and Clay, very dark greenish gray (Gley 1 3/1), moist/damp, with fine grained sand, low-medium plasticity, cohesive	ML		
							39				
							40	Silt, very dark greenish gray (Gley 1 3/1), moist, silt with clay with fine grained sand, cohesive, non-plastic	ML		
							41	Sand, very dark greenish gray (Gley 1 3/1), moist/damp, fine grained sand with silt, trace clay, non-plastic, non-cohesive	SM		
12.6							42	Sand, dark greenish gray (Gley 1 4/1), damp/moist, fine grained sand with medium grained sand, some silt	SP		
10.4							43	Sand, dark greenish gray (Gley 1 4/1), damp/moist, fine grained sand and medium grained sand, non-cohesive	SP		
							44	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand and fine grained sand, trace silt	SP		
19.7							45	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some coarse grained sand	SP		
6.5							46	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some coarse grained sand	SP		
				19.3	3.3	22.6	47	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace coarse grained sand	SP		
2.8							48	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some fine grained sand, trace coarse grained sand	SP		
4.0							49	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
3.9							50				
7.6							51	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand and fine grained sand, trace silt	SP		
							52	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, trace fine grained sand	SP		
4.1											
1.7											
4.4											
4.3											



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 26-27, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19.5 feet TOTAL DEPTH: 70 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
7.3							53	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand and medium grained sand, trace fine grained sand, trace gravel	SP		
6.0							54	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, trace fine grained sand, trace gravel	SP		
2.2							55				
4.1							56	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, trace gravel	SP		
4.8							57				
5.5							58				
5.8							59	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, trace fine grained sand	SP		
4.7							60	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand and coarse grained sand, some fine grained sand	SP		
							61				
10.7							62	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand with gravel	SP		
7.3							63				
							64				
5.8							65				
3.1							66				
							67				
8.1							68	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand with coarse grained sand	SP		
5.3							69				
4.9							70				



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28, 2001
 LOGGED BY: Todd Wirths
 APPROVED BY: Gary J. McCue
 DRILLING CO.: THF

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Hollow Stem Auger - 10-inch	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: Split Spoon - CA Mod			
							0	Backfill of sand and gravel	SP		
							1				
							2				
							3	Sandy Silt, very dark gray, damp	ML		
							4	Sand, light yellowish brown, damp, very fine to medium grained sand, trace silt, grades to silty sand	SP		
5	0.5						5	Silty Sand, yellowish brown, moist, silty very fine to medium grained sand, medium dense	SM		
10							6				
14							7				
							8	Sandy Silt, dark gray, moist, very fine to medium grained sandy silt, very stiff, poor plasticity	ML		
							9				
7	0.5						10				
8							11				
16							12				
							13				
							14				
8	1						15	becomes dark greenish gray	ML		
14							16				
16							17	Silty Sand, dark greenish gray, moist, silty very fine to medium grained sand, dense	SM		
14	2						18	becomes very dense	SM		
19							19	Sand, gray, wet, very fine to medium grained sand, very dense, some coarse grained sand	SP		
23		ND<0.005					20	Sandy Silt, dark greenish gray, wet, very fine grained sandy silt, hard	ML		
24	11						21	Sand, gray, wet, very fine to coarse grained sand, very dense, some silt	SW		
30							22				
29		ND<0.005					23				
34	4			*	*	7.34	24	Silt, dark gray, wet, silt, hard, trace very fine grained sand, good plasticity	ML		
34							25				
42		ND<0.005					26				
31	4										
33											
40	10										
22	6										
28											
30											
24	0										
25											
38											
12											
28		ND<0.005									


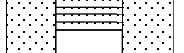


LOG OF EXPLORATORY BORING

MW-20A
 PAGE 1 OF 2

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28, 2001
 LOGGED BY: Todd Wirths
 APPROVED BY: Gary J. McCue
 DRILLING CO.: THF

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Hollow Stem Auger - 10-inch	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: Split Spoon - CA Mod			
40							27				



PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecul, California

DATE DRILLED: November 16, 18-21, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19.5 TOTAL DEPTH: 80 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Asphalt			
							1	Fill, olive brown, dry sand, coarse, medium and fine grained sand with gravel			
							2				
							3				
							4				
							5	No recovery			
							6				
5.6							7	Sand, grayish brown (10YR 5/2), dry, medium and fine grained sand, some silt, trace gravel	SP		
4.9							8	Sand, grayish brown (10YR 5/2), dry, coarse and medium grained sand with fine grained sand, some gravel- some black asphalt type material at 8 feet	SP		
							9				
3.9							10	Clayey Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand, some medium grained sand, plastic, water from drill rig	SC		
0.9							11				
							12	Sand, olive brown (2.5Y 4/3), wet, coarse grained sand with silt, some gravel, trace clay	SM		
1.6							13	Sandy Clay, dark greenish gray (Gley 1 4/1), wet, medium and fined grained sand with silt, medium plasticity	CL		
5.3							14	Clay and Silt, dark greenish gray (Gley 1 4/1), wet, with fine grained sand	CL		
							15	Silt and Clay, dark greenish gray (Gley 1 4/1), wet, with fine grained sand, some medium grained sand	ML		
51.9							16	Sand, grayish brown (2.5Y 3/2), damp, medium grained sand with fine grained sand, some gravel, trace clay	SP		
							17	Sand, dark greenish gray (Gley 1 4/1), moist, medium and fine grained sand with silt, trace clay, trace gravel	SP		
52.4							18	Sand, greenish gray (Gley 1 5/1), moist, medium and fine grained sand with silt, some gravel, trace clay	SP		
320							19				
							20	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand with gravel	SP		
196							21				
110							22	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand with gravel, trace silt	SP		
							23				
71							24	Silt, greenish black (Gley 2.5/1), wet, silt and fine grained sand, trace clay, non-plastic	ML		
128							25	Silt, greenish black (Gley 1 2.5/1), wet, silt and fine grained sand, some clay, non-plastic	ML		
							26	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand, trace silt	SP		
106											
58.2								Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some silt	SM		



LOG OF EXPLORATORY BORING

MW-20B
 PAGE 1 OF 4

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecul, California

DATE DRILLED: November 16, 18-21, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19.5 TOTAL DEPTH: 80 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL	
								DESCRIPTION				
							27	Silt and Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some medium grained sand, non-cohesive	ML			
75.5		ND<0.005					28	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay with fine grained sand, low plasticity, cohesive	ML			
29.3							29	Silt and Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, trace of medium grained sand, low plasticity, cohesive	ML			
							30	Clay and Silt, very dark greenish gray (Gley 1 3/1), wet, trace fine grained sand, medium plasticity, cohesive	CL			
49.5							31	Silt and Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, non-plastic	ML			
69.9							32					
							33	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, slightly plastic, cohesive	ML			
72.1							34	Silt and Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, non-plastic	ML			
25.7							35					
							36	Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, with fine grained sand, low plasticity, cohesive	ML			
40.9							37	Clay, very dark greenish gray (Gley 1 3/1), wet, clay with silt, some fine grained sand, cohesive, medium plasticity	CL			
							38	Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, with fine grained sand, low plasticity	ML			
61.8				67.37	14.56	81.93	39	Clay and Silt, very dark greenish gray (Gley 1 3/1), wet, with fine grained sand, medium plasticity	CL			
19.0		ND<0.005					40	Sandy Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay, cohesive, non-plastic	ML			
37.9							41	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay with fine grained sand, low plasticity, cohesive	ML			
25.0							42	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with silt, some clay, non-cohesive	SM			
							43					
88							44					
275							45	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with silt with medium grained sand, non-cohesive	SM			
							46					
307		0.82					47	Sand and Silt, dark greenish gray (Gley 1 4/1), wet, fine grained sand, some medium grained sand	SM			
							48	Silt, dark greenish gray (Gley 1 4/1), wet, silt and fine grained sand, some clay, non-cohesive	ML			
							49	Silt, dark greenish gray (Gley 1 4/1), wet, silt with clay, non-plastic, cohesive	ML			
2,107							50	Silt, dark greenish gray, silt with fine grained sand, trace clay, non-cohesive, non-plastic	ML			
							51	Clay, dark greenish gray (Gley 1 4/1), wet, clay with silt, some fine grained sand, low plasticity	CL			
528				58.63	11.55	70.18	52	Clay and Silt, dark greenish gray (Gley 1 4/1), wet, some fine grained sand, cohesive, medium plasticity	CL			
90.8		0.011					53	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand, some silt, some medium grained sand, non-cohesive	SM			
15.6							54	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some silt, non-cohesive	SM			
2.6												



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecul, California

DATE DRILLED: November 16, 18-21, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear


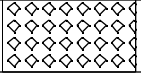
BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19.5 TOTAL DEPTH: 80 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
		ND<0.005					53				
8.8							54	Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, low plasticity, cohesive	ML		
5.2							55	Clay, very dark greenish gray (Gley 1 3/1), wet, clay with silt, moderately plastic, cohesive	CL		
		ND<0.005					56	Silt and Sand, dark greenish gray (Gley 1 4/1), damp/moist, fine grained sand, some clay, non-cohesive	ML		
8.3							57	Sand, very dark greenish gray (Gley 1 3/1), damp, fine and medium grained sand with silt, cohesive	SM		
8.5							58	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand, non-cohesive	SP		
							59	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, trace fine grained sand	SP		
8.0							60				
8.3							61	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace gravel	SP		
7.6							62	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand	SP		
							63	Sand, greenish gray (Gley 1 6/1), wet, medium grained sand with coarse grained sand, some gravel	SP		
6.3							64	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, trace gravel	SP		
							65				
5.0							66	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, trace fine grained sand	SP		
13.2		ND<0.005					67	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
							68	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand	SP		
19.2							69	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
3.9							70	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand with gravel	SP		
							71				
3.7							72				
5.2							73	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand, some medium grained sand, some gravel	SP		
							74	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel, some medium grained sand	SP		
							75	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand with gravel	SP		
5.5							76				
3.3							77	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, trace gravel	SP		
							78	Sand, greenish gray (Gley 1 5/1), wet, medium and coarse grained sand, some gravel	SP		
3.0							79				
3.2											



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecul, California

DATE DRILLED: November 16, 18-21, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: 6 - inch Core Barrel			
4.6		ND<0.005					80				



PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 27, 2001
 LOGGED BY: Todd Wirths
 APPROVED BY: Gary J. McCue
 DRILLING CO.: THF

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Hollow Stem Auger - 10-inch	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: Split Spoon - CA Mod			
							0	Asphalt			
							1	Backfill, sand and gravel	SP		
							2	Sandy silt, very dark gray, moist, very fine grained sandy silt, some fine to medium grained sand	ML		
						3					
						4					
						5					
5	2.5						6	Sandy silt, very dark gray, moist, very fine grained sandy silt, some fine to medium grained sand, stiff, poor plasticity	ML		
6						7					
6						8					
						9					
6							10	Sandy silt, dark olive gray, moist, very fine to fine grained sandy silt, some medium grained sand, very stiff, poor plasticity	ML		
10	4					11					
11						12					
						13					
7							14	becomes moderately plastic	ML		
7	2					15					
11							16	becomes hard	ML		
8						17					
16	1						18	Silty sand, dark greenish gray, wet, silty very fine to fine grained sand, some medium grained sand, dense	SM		
21		ND<0.005				19					
9							20	becomes very dense	SM		
17	3	ND<0.005				21					
30							22	Silty sand, dark greenish gray, wet, silty very fine to coarse grained sand, very dense	SM		
13						23					
30	5						24	Silt, dark gray, very fine grained sandy silt	ML		
38						25					
27		ND<0.005					26	Sand, gray, very fine to coarse sand with trace to some silt	SW		
34	2					27					
50							28	Sand, gray, wet, very fine to medium grained sand, very dense, trace to some silt, trace coarse sand	SP		
13						29					
21	0						30	as above with isolated gravel clast	SP		
27						31					
24							32				
39	0.5						33				
50				*	*	8.39	34				
16							35				
17	1						36				


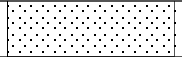


LOG OF EXPLORATORY BORING

MW-21A
 PAGE 1 OF 2

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 27, 2001
 LOGGED BY: Todd Wirths
 APPROVED BY: Gary J. McCue
 DRILLING CO.: THF

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Hollow Stem Auger - 10-inch	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: Split Spoon - CA Mod			
30		ND<0.005					27	Sandy silt, very dark gray, very fine grained sandy silt, hard	ML		



PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 13-15, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 85 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Aaphalt			
							1	Road base, light olive brown (2.5Y 4/4)			
							2	Fill, black (10YR 2/1), black clayey silt, semi plastic			
							3				
							4				
							5	No recovery			
							6				
							7	Clay and Silt, black (10YR 2/2), wet, plastic, water from drill rig	CL		
							8	Clay and Silt, dark gray (2.5Y 4/1), moist	CL		
							8	Clay and Silt, black (10YR 2/1), moist	CL		
							9				
							10	Silt and Sand, olive brown (2.5Y 4/3), moist, medium grained sand with clay	ML		
							10	Silt and Clay, dark olive brown (5Y 3/2), damp, low plasticity	ML		
							11	Sand, dark olive gray (5Y 3/2), slightly moist, medium grained sand with silt, some clay, non-plastic	SM		
							12				
							12	Clay, dark greenish gray (Gley 1 4/1), moist, clay with silt with fine grained sand, trace coarse grained sand, plastic	CL		
							13				
							14	Sand, dark greenish gray (Gley 1 4/1), moist, fine and medium grained sand with silt, some clay, non plastic	SM		
							14	Sand, dark greenish gray (Gley 1 4/1), moist, fine and medium grained sand with silt, non plastic	SM		
							15				
							15	Silt and Clay, dark greenish gray (Gley 1 4/1), moist, with fine grained sand, medium plasticity	ML		
							16				
							17	Sandy Silt, dark greenish gray (Gley 1 4/1), moist, fine grained sand with clay, some medium grained sand	ML		
							18				
							18	Silty Sand, dark greenish gray (Gley 1 4/1), moist, fine grained sand, some clay, trace medium grained sand	SM		
							19				
							19	Silt and Clay, dark greenish gray (Gley 1 4/1), moist, with fine grained sand, some clay, low plasticity	ML		
							20	Sand, dark greenish gray (Gley 1 4/1), moist, fine and medium grained sand with silt, some coarse grained sand	SM		
							20	Sand, dark greenish gray (Gley 1 4/1), wet, fine and medium grained sand, trace silt	SM		
							21				
							21	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand with gravel	SP		
							22				
							22	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace silt	SP		
							23				
							23	Sand, dark greenish gray (Gley 1 4/1), wet, medium and coarse grained sand with some fine grained sand, trace silt	SP		
							24				
							24	Sand, dark greenish gray (Gley 1 4/1), wet, medium and coarse grained sand, trace fine grained sand	SP		
							25				
							25	Sand, greenish gray (Gley 1 6/1), wet, medium and coarse grained sand, some fine grained sand	SP		
							26				
							26	Sand and Silt, dark greenish gray (Gley 1 4/1), wet, fine grained sand, trace clay	SM		



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 13-15, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 85 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	13.1						27	Silt and Clay, dark greenish gray (Gley 1 4/1), wet, with fine grained sand	ML		
	10.9						28	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, some silt	SP		
	12.2						29				
	7.2						30	Sand, dark greenish gray (Gley 1 6/1), wet, medium grained sand with fine grained sand	SP		
	6.3						31				
	9.3						32	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some gravel	SP		
	5.7						33				
	7.7						34	Sand, dark greenish gray (Gley 1 4/1), wet, fine and medium grained sand, some silt	SP		
							35	Silty Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand	SM		
	11.5						36	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, trace silt	SP		
	6.6						37	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace silt	SP		
	6.9						38				
	12.2						39	Silt and Clay, dark greenish gray (Gley 1 4/1), wet, with fine grained sand, very low plasticity	ML		
							40	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with silt	SM		
	33.5						41				
	7.1						42	Silt and Sand, very dark greenish grey (Gley 1 3/1), wet, fine grained sand, some clay, non-plastic, dense, cohesive	ML		
	11.8						43	Silt, very dark greenish grey (Gley 1 3/1), wet, silt with clay and fine grained sand, non-plastic, dense, cohesive	ML		
	11.4						44				
	10.1						45	Silt and Clay, very dark greenish grey (Gley 1 3/1), wet, with fine grained sand, moderate plasticity, dense, cohesive	ML		
	3.4						45	Silt and Sand, very dark greenish grey (Gley 1 3/1), moist, fine grained sand, trace clay, soft, non-cohesive	ML		
				*	*	9.83	46	Silt and Sand, very dark greenish grey (Gley 1 3/1), moist, fine grained sand, some clay, dense, cohesive	ML		
	36.0						47	Sand, very dark greenish grey (Gley 1 3/1), moist, fine grained sand with silt, trace clay	SM		
	54.8						48				
		ND<0.005					49	Silt and Sand, very dark greenish grey (Gley 1 3/1), moist, fine grained sand, some clay, non-plastic, soft, non-cohesive	ML		
	36.6						50	Silt and Sand, very dark greenish grey (Gley 1 3/1), moist, fine grained sand with clay, non-plastic, soft, non-cohesive	ML		
	19.6						51				
							52	Silt, very dark greenish grey (Gley 1 3/1), wet, silt with fine grained sand with clay, slightly dense, cohesive	ML		
	50.0	ND<0.005					52	Silt and Sand, very dark greenish grey (Gley 1 3/1), wet, fine grained sand, some clay,	ML		



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 13-15, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 85 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
31.3							53	soft, non-cohesive			
							54	Silt and Sand, very dark greenish grey (Gley 1 3/1), damp, fine grained sand, trace clay, slightly cohesive	ML		
19.2			ND<0.5				55	Clay and Silt, very dark greenish grey (Gley 1 3/1), some fine grained sand, plastic, dense, cohesive	CL		
6.9							56	Silt and Clay, very dark greenish grey (Gley 1 3/1), moist, plastic	ML		
							57	Clay, very dark greenish grey (Gley 1 3/1), wet, clay with silt, dense, cohesive	CL		
5.8							58	Clay, very dark greenish grey (Gley 1 3/1), moist, clay with silt, trace fine grained sand, moderately plastic, dense	CL		
5.8							59	Silt and Clay, very dark greenish grey (Gley 1 3/1), moist, low plasticity, dense, cohesive	ML		
							60	Clay, greenish gray (Gley 1 4/1), wet, clay with silt, some fine grained sand, medium plastic, cohesive	CL		
10.8			ND<0.005				61				
5.3							62				
4.4							63	Silt and Sand, greenish gray (Gley 1 4/1), wet, fine grained sand, some clay, non-plastic, non-cohesive	ML		
2.4							64	Clay and Silt, very dark greenish grey (Gley 1 3/1), wet, some fine grained sand, moderate plasticity	CL		
							65	Silt and Clay, very dark greenish grey (Gley 1 3/1), moist, low plasticity, cohesive	ML		
3.7							66	Clay and Silt, dark greenish gray (Gley 1 4/1), moist, trace fine grained sand, tough, cohesive, low to medium plasticity	CL		
3.3							67	Clay, dark greenish gray (Gley 1 4/1), moist, clay with silt, plastic, cohesive	CL		
							68	Silty Clay, dark greenish gray (Gley 1 4/1), damp/moist, clay, medium plasticity, cohesive	CL		
2.8							69	Clay, dark greenish gray (Gley 1 4/1), wet, clay with silt, plastic, cohesive	CL		
3.2							70	Silt, dark greenish gray (Gley 1 4/1), moist, silt with clay and fine grained sand, low plasticity, cohesive	ML		
							71	Clay and silt, dark greenish gray (Gley 1 4/1), some fine grained sand, moderate plasticity, cohesive	CL		
							72				
5.1							73	Silt and Clay, dark greenish gray (Gley 1 4/1), with fine grained sand, low plasticity, cohesive	ML		
4.3							74				
							75	Sand and Silt, dark greenish gray (Gley 1 4/1), wet, fine grained sand with clay, trace medium grained sand, non-cohesive	SM		
6.2							76	Silty Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand, some medium grained sand, non-cohesive	SM		
9.8							77				
							78	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, trace fine grained sand	SP		
12.2							79		SP		
13.2											
15.7											
9.8											



LOG OF EXPLORATORY BORING

MW-21B
 PAGE 3 OF 4

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 13-15, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 85 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	5.8						80	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
	6.5					81	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, trace fine grained sand	SP			
	6.0					82	Sand, greenish gray (Gley 1 5/1), wet, medium and coarse grained sand, some fine grained sand	SP			
	7.2					83	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, trace fine grained sand, some gravel	SP			
	5.9					85					



PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 5, 2001
 LOGGED BY: Todd Wirths
 APPROVED BY: Gary J. McCue
 DRILLING CO.: THF

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Hollow Stem Auger - 10-inch SAMPLER TYPE: Split Spoon - CA Mod DEPTH TO WATER: 16 feet TOTAL DEPTH: 22 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Silty sand	SM		
3							1				
							2				
							3				
							4				
3							5	Silty sand, brown, moist, silty very fine to fine grained sand, trace medium grained sand, loose	SM		
3	0						6				
4							7				
							8				
6							9				
6	0						10	Sand, brown, moist, very fine to medium grained sand, dense	SP		
8							11				
							12				
5	0						13	becomes light yellowish brown	SP		
9							14	Sand, light gray, wet, very fine to coarse grained sand, trace silt, loose	SW		
10							15				
3	0						16	becomes medium dense	SW		
4							17	Sand, light gray, wet, very fine to medium grained sand, trace silt, medium dense	SP		
5							18				
5	0						19	Sand, light gray, wet, very fine to coarse grained sand, trace silt, medium dense	SW		
7							20				
7	0						21	Silt, black, moist, silt, some very fine grained sand, very stiff, moderately plastic	ML		
9							22				



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 23-24, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 17.5 feet TOTAL DEPTH: 60.2 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Fill, organic silts, dark brown (2.5Y), moist, sandy, fine grained sand, root fragments			
							1				
							2				
							3				
							4				
4.2							5	Sand, dark brown (dark olive brown 2.5Y 3/3), dry	SW		
							6	Sand, tan (olive brown 2.5Y 6/6), medium grained sand	SP		
1.1							7				
21							8	Sand, tan (olive brown 2.5Y 6/6), fine grained sand, some silt	SP		
							9	Sand, tan (olive brown 2.5Y 4/3), dry, fine grained sand	SP		
							10	Sand, tan (yellow 2.5Y 7/8), coarse grained sand with gravel	SW		
14							11				
5.5							12	Sand, gray (gray 2.5Y 5/1), coarse and medium grained sand with gravel	SW		
							13				
8.0							14	Sand, tan (grayish brown 2.5Y 5.2), moist, coarse grained sand	SP		
							15	Sand, gray-tan (gray 2.5Y 5.1), coarse grained sand, some gravel	SP		
19							16	Sand, tan (light brownish gray 2.5Y 6.2), wet, coarse grained sand with gravel	SP		
							17	Sand, yellow (light gray 10YR 7.1), moist, coarse grained sand with gravel	SP		
6.7				*	*	7.58	18	Sand, green gray (greenish gray Gley 1 5/1), moist	SP		
14.3							19	Silty clay, very dark gray (Gley 1 3/1), wet, silty clay	CL		
							20	Sand, gray green (Gley 1 2.5), coarse sand with gravel	SP		
4.2							21	Sand, gray green (Gley 1 2/7), wet, coarse grained sand with gravel	SP		
6.7							22				
							23	Sand, gray green (Gley 1 2/7), wet, coarse grained sand with medium grained sand	SP		
		ND<0.005					24	Silt, dark green (Gley 1 2/3), moist, silt with fine grained sand, some clay, slightly plastic	ML		
6.8							25	Silt, dark green (Gley 1 3/), moist, silt with fine grained sand	ML		
							26				
11.9							27	Silt, dark green (Gley 1 3/), moist, silt, some fine grained sand	ML		
		ND<0.005					28				
							29	Silt, dark green (Gley 1 3/), moist, silt, trace fine grained sand	ML		
21.1							30				
9.4							31	Silt, dark green (Gley 1 3/), moist, trace fine grained sand	ML		
							32				
		ND<0.005					33	Sand, dark green (Gley 1 3/), moist, fine grained sand with silt	SM		
4.2				48.17	9.32	57.49	34	Silty Sand, dark green (Gley 1 3/), moist, fine grained sand	SM		
27.2							35				
2.2							36	Silty Clay, dark green (Gley 1 3/), slightly moist, clay with fine sand, non-plastic	CL		
				52.89	12.62	65.5	37				



LOG OF EXPLORATORY BORING

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 PAGE 1 OF 3

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 23-24, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 17.5 feet TOTAL DEPTH: 60.2 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
3.3		ND<0.005					27	Silt and clay, dark green (Gley 1 3/), slightly moist, very fine silt	ML		
3.5							28	Sandy silt, dark green (Gley 1 3/), silt with clay	ML		
							29	Sand, dark green (Gley 1 4/1), wet, fine grained sand	SC		
3.1							30	Sand, dark green (Gley 1 16Y), wet, fine grained sand, some clay, micaceous	SC		
4.6							31				
4.8				24.21	4.2	28.41	32	Sand, dark green (Gley 1 2.5), wet, fine to medium grained sand	SM		
							33	Sand, dark green (Gley 1 2.5), wet, fine grained sand with silt	SC		
2.8							34	Clay, dark green (Gley 1 2.5), slightly moist, some silt, stiff	CH		
							35	Clay, dark green (Gley 1 2.5), moist	CH		
5.3				72.01	17.85	89.86	36	Clay, dark green (Gley 1 2.5), moist, clay, some silt, very plastic	CH		
8.2							37	Silty Sand, dark green, (Gley 1 3/1), moist, very fine grained sand, some clay, micaceous	SM		
							38	Silty clay, dark green, (Gley 1 3/1), moist, clay with fine grained sand, micaceous	CL		
10.3							39	Silty clay, dark green, (Gley 1 3/1), almost dry, fine grained	CH		
9.9							40	Silty sand, dark green, (Gley 1 3/1), fine grained sand	SM		
							41	Silt and clay, dark green, (Gley 1 3/1), almost dry, slightly moist, tough, micaceous	ML		
7.2							42	Clayey sand, dark green (Gley 1 2.5 2.5/1), wet, fine grained sand, with silt	SC		
0.9							43	Silty clay, dark green (Gley 1 2.5 2.5/1), medium tough	CL		
							44	Sand, green (Gley 1 2.5 2.5/1), fine grained sand with silt with mica	SM		
9.2							45	Sand, dark green (Gley 1 2.5 2.5/1), fine grained sand with silt	SM		
5.9		ND<0.005					46	Sand, dark green (Gley 1 2.5 2.5/1), wet, fine grained sand with silt	SM		
							47	Silty sand, dark green (Gley 1 2.5 2.5/1), moist, fine grained sand, micaceous	SM		
5.2							48	Sandy Silt, dark green (Gley 1 2.5 2.5/1), moist	ML		
8.3							49	No recovery			
18.0							50	Silty Sand, greenish black (Gley 1 2/5 2.5/1), moist, very fine grained sand, some clay, micaceous	SM		
14.9				51.73	11.45	63.19	51	Sand, dark green (Gley 1 2.5 2.5/1), moist, very fine grained sand with silt, tough, micaceous	SM		
							52	Sand, dark green (Gley 1 2.5 2.5/1), moist, fine grained sand, trace medium grained sand	SM		
10.2							53	Sand, dark green (Gley 1 2.5 2.5/1), wet, fine grained sand	SM		
5.1		ND<0.005		*	*	8.65	54	Sand, dark green (Gley 1 2.5/1), moist	SW		
3.4							55	Sand, dark green (Gley 1 2.5/1), moist, medium grained sand, some fine grained sand, micaceous	SW		
5.8							56				



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 23-24, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 17.5 feet TOTAL DEPTH: 60.2 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	6.1 5.7						53	Sand, dark green (Gley 1 2/5/1), moist, fine grained sand with silt, trace clay	SW		
						54	Sand, dark green (Gley 1 2.5/1), moist, coarse grained sand with medium grained sand, trace silt	SW			
	7.4 11.8					55	Sand, dark green (Gley 1 3/1), wet, coarse grained sand, some medium grained sand	SP			
	6.2					56	Sand, gray green (Gley 1 4/1), wet, coarse grained sand	SW			
	5.5			*	*	57	Sand, gray green (Gley 1 5/1), wet, medium grained sand, some coarse grained sand	SW			
	7.7					58	Sand, gray green (Gley 1 5/1), wet, medium and coarse grained sand	SW			
						59	Sand, gray green (Gley 1 5/1), wet, medium grained sand, trace fine grained sand	SW			
	5.3	ND<0.005				60	Sand, gray green (Gley 1 5/1), wet, medium and coarse grained sand, trace gravel	SW			



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 4, 2001
 LOGGED BY: Todd Wirths
 APPROVED BY: Gary J. McCue
 DRILLING CO.: THF

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Hollow Stem Auger - 10-inch SAMPLER TYPE: Split Spoon - CA Mod DEPTH TO WATER: 15 feet TOTAL DEPTH: 25.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Silty Sand	SM		
							1				
							2				
							3				
							4				
4							5	Silty Sand, dark grayish brown, damp, silty very fine to medium grained sand, medium dense, trace coarse grained sand, trace gravel	SM		
5	0						6				
7							7				
							8				
							9				
3							10				
5	3.6						11				
7							12				
							13				
							14				
3							15	Sand, wet, very fine to medium grained sand, loose, trace to some silt, trace coarse grained sand	SP		
3	0						16				
3							17	Silt, dark olive gray, wet, soft	ML		
2							17	Sand, gray, wet, very fine to coarse grained sand	SW		
3	0						17	Sand, gray, wet, very fine to medium grained sand, loose, trace coarse grained sand	SP		
3							18	as above, medium dense	SP		
4							19				
5	0						19	Sand, gray, wet, very fine to coarse grained sand, loose, trace silt	SW		
7							20				
3							20	as above, coarse subangular sand common	SW		
5							21				
3	0						22				
3							22				
4							23	Silty Sand, very dark gray, wet, silty very fine to fine grained sand, loose, trace medium grained sand	SM		
3	0						23	Sand, gray, wet, very fine to coarse grained sand, loose, trace silt	SW		
3							24				
4							24	as above, trace to some silt	SW		
3	0						25				
4							25	as above, trace silt, trace angular fine gravel	SW		
5											



LOG OF EXPLORATORY BORING

MW-23A
 PAGE 1 OF 1

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 30-31, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 16 feet TOTAL DEPTH: 60 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Sand and Silt, olive brown (2.5Y 3-2.5), with clay, trace rock/boulders			
							1				
							2				
							3				
							4				
	12.8						5	Silty Sand, dark grayish brown (2.5Y 4/2), dry, fine grained sand with clay	SM		
							6				
	5.4						7				
	9.1						8				
							9	Sand, olive brown (2.5Y 3/1), dry, fine grained sand with silt	SM		
	8.5						10	Silt and Sand, black (10YR 2/1), moist, fine grained sand, some clay	ML		
	14.9						11				
							12	Sand, grayish brown (2.5Y 5/1), moist, medium and fine grained sand, trace silt	SP		
	7.2	ND<0.005					13	Clay, grayish brown (2.5Y 5/1), moist, clay with silt, trace fine grained sand, plastic	CL		
	11.9	ND<0.005					14				
							15	Sand, dark grayish brown (2.5Y 4/1), wet, fine and medium grained sand, trace silt	SP		
	2.3	ND<0.005					16				
	25.0						17	Sand, grayish brown (2.5Y 5/2), wet, medium grained sand with fine grained sand	SP		
							18	Sand, grayish brown (2.5Y 5/2), wet, coarse grained sand, some medium grained sand	SP		
							19	Sand, grayish brown (2.5Y 5/2), wet, medium and fine grained sand	SP		
							20	Sand, light brownish gray (2.5Y 5/1), wet, medium grained sand, some fine grained sand	SP		
							21	Sand, light brownish gray (2.5Y 5/1), wet, coarse grained sand	SP		
							22	No recovery			
	14.1						23	Sand, dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand	SP		
							24				
	3.5						25	Sand, gray (Gley 1 6/1), wet, very coarse grained sand, some gravel, some medium grained sand with fine grained sand	SP		
	7.1						26				
							27	Clay and Silt, dark gray green (Gley 1 3/1), wet	CL		
	4.8						28				
	2.9						29	Sand, gray (Gley 1 5/1), wet, very coarse grained sand with fine grained sand, some gravel, trace silt	SP		
							30				



LOG OF EXPLORATORY BORING

MW-23B
 PAGE 1 OF 3

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 30-31, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 16 feet TOTAL DEPTH: 60 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	1.5						27				
	9.0						28	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel, some silt	SP		
							29				
	4.1						30	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel, trace silt	SP		
	3.0						31				
							32	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand with fine grained sand, some silt	SP		
	3.5	ND<0.005					33	Silt, dark greenish gray (Gley 1 3/1), wet, silt with clay, some fine grained sand, low plasticity	ML		
	9.7						34				
	16.2	ND<0.005					35	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, non-plastic	ML		
	13.6						36	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand	SP		
							37	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand	SP		
	16.3						38	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand	SM		
	8.0			55.68	9.7	65.38	39	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with medium grained sand, some silt	SP		
							40				
	8.7						41	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand	SP		
	6.4						42	Sand, very dark greenish gray (Gley 1 3/1), wet, coarse grained sand, trace fine grained sand	SP		
	5.4						43	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and coarse grained sand	SP		
	5.0	ND<0.005					44	Silt, very dark greenish gray (Gley 1 3/1), wet, silt, some very fine grained sand	ML		
							45				
	5.3						46	Silt and Clay, very dark greenish gray (Gley 1 3/1), moist/damp, some fine grained sand, non-plastic	ML		
	18.5						47	Sandy Silt, very dark greenish gray (Gley 1 3/1), wet, silt, non-plastic	ML		
	15.1						48				
	4.0	ND<0.005					49	Silt and Clay, very dark greenish gray (Gley 1 3/1), moist/damp, trace to some very fine grained sand, slightly plastic	ML		
				56.34	13.77	70.12	50				
	6.4						51	Clay and Silt, very dark greenish gray (Gley 1 3/1), damp, clay and silt, plastic	CL		
	3.7						52	Silt, very dark greenish gray (Gley 1 3/1), moist, silt with clay, non-plastic	ML		
							53				
	5.4						54	Silt, very dark greenish gray (Gley 1 3/1), silt with clay	ML		
	27.8			58.92	12.82	71.73	55	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt	SP		



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

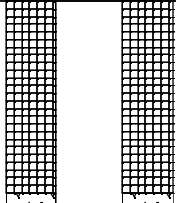
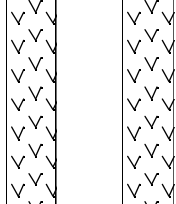
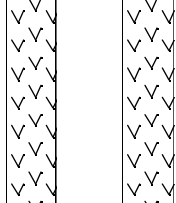
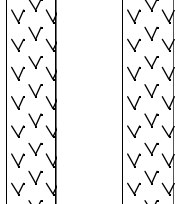
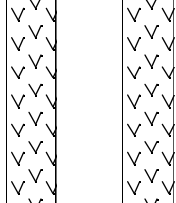
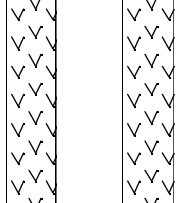
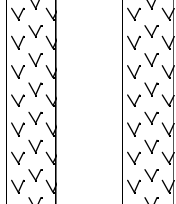
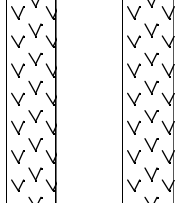
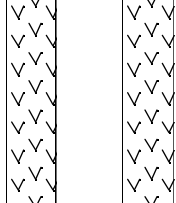
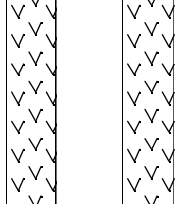
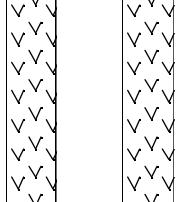
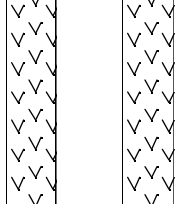
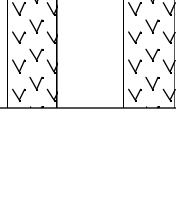

DATE DRILLED: October 30-31, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 16 feet TOTAL DEPTH: 60 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	31.4	0.0068					53				
	21.2						54	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand, some fine grained sand	SP		
							55	Sand, very dark gray (Gley 1 3/4), wet, medium grained sand, some fine grained sand	SP		
	25.4						56	No recovery			
				21.29	4.63	25.91	57	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt	SP		
	55	ND<0.005					58	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand, trace coarse grained sand	SP		
	12.7						59				
	3.9						60				



PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 18 feet TOTAL DEPTH: 215 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Sand, dark olive gray (5Y 3/2), dry, fine grained sand with silt, organic debris, rocks, twigs			
						1					
							2				
							3				
							4				
							5	Well MW-23C located near MW-23B, began logging hole at 55 feet below grade			
							6				
							7				
							8				
							9				
							10				
							11				
							12				
							13				
							14				
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				



LOG OF EXPLORATORY BORING

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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: 6 - inch Core Barrel			
							27				
							28				
							29				
							30				
							31				
							32				
							33				
							34				
							35				
							36				
							37				
							38				
							39				
							40				
							41				
							42				
							43				
							44				
							45				
							46				
							47				
							48				
							49				
							50				
							51				
							52				



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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 18 feet TOTAL DEPTH: 215 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL	
								DESCRIPTION				
							53					
							54					
13.6							55	Sand, dark greenish gray (Gley 1 4/1), wet, medium and fine grained sand, trace silt	SP			
							56					
4.2							57	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some fine grained sand	SP			
19.4							58					
							59					
16.7							60	Silty Sand, very dark greenish gray (Gley 1 3/1), damp/moist, fine grained sand	SP			
4.3							61	Silt and Sand, very dark greenish gray (Gley 1 3/1), damp/moist, fine grained sand Sand, very dark greenish gray (Gley 1 3/1), damp/moist, fine grained sand with silt	ML SP			
							62	Silt, very dark greenish gray (Gley 1 3/1), damp/moist, silt with fine grained sand, non-plastic	ML			
11.3							63					
11.9							64	Silt, very dark greenish gray (Gley 1 3/1), damp/moist, silt with fine grained sand, some clay, non-plastic	ML			
							65	Sand, very dark greenish gray (Gley 1 3/1), damp-wet, fine grained sand, trace silt with medium grained sand	SP			
							66					
							67					
37.2							68	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay, slightly plastic Sandy Silt, very dark greenish gray (Gley 1 3/1), moist, fine grained sand	ML ML			
6.7							69	Silt, very dark greenish gray (Gley 1 3/1), moist, silt with fine grained sand, trace medium grained sand	ML			
							70	Sand, dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand, some coarse grained sand Sand, dark greenish gray (Gley 1 3/1), wet, fine grained sand, some medium grained sand	SP SP			
7.8							71	Sand, very dark greenish gray (Gley 1 3/1), moist/damp, fine grained sand with silt, some medium grained sand, trace coarse grained sand	SP			
4.5							72	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and coarse grained sand	SP			
							73	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, trace fine grained sand	SP			
							74					
							75	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some coarse grained sand, trace gravel Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some fine grained sand, trace gravel	SP SP			
3.5							76					
11.3							77					
							78	Sand, dark greenish gray (Gley 1 4/1), wet, medium and coarse grained sand, some fine grained sand	SP			
2.8							79		SP			



LOG OF EXPLORATORY BORING

MW-23C
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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: 6 - inch Core Barrel			
4.1			ND<1				80	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
6.4							81	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with medium grained sand, trace gravel	SP		
							82				
4.6							83	Sand, dark gray (Gley 1 4/), wet, medium grained sand, some coarse grained sand, some fine grained sand	SP		
15.3							84	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with medium grained sand, some gravel	SP		
							85	Sand, dark gray (Gley 1 4/), wet, coarse grained sand, some medium grained sand with gravel	SP		
4.4							86				
6.5							87	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with fine grained sand with medium grained sand	SP		
							88	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with medium grained sand, some gravel	SP		
2.8							89	Silty Sand, dark gray (Gley 1 4/), wet, fine grained sand, some medium grained sand	SM		
6.6							90	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with gravel with medium grained sand	SP		
			ND<1				91	Silty Sand, dark gray (Gley 1 4/), wet, fine and medium grained sand	SM		
5.9							92	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with medium grained sand, some gravel	SP		
							93	Silt, dark greenish gray (Gley 1 4/1), wet, silt, some fine grained sand with clay, slightly plastic	ML		
5.0							94	Sand, dark gray (Gley 1 4/), wet, coarse and medium grained sand, trace gravel	SP		
7.5							95				
5.6							96	Sand, dark gray (Gley 1 4/), wet, medium grained sand with fine grained sand, some coarse grained sand	SP		
4.1							97	Sand, dark gray (Gley 1 3/1), wet, medium grained sand with fine grained sand	SP		
			24				98	Sand, dark gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand	SP		
5.9							99	Clay and Silt, very dark gray (Gley 1 3/1), wet, clay and silt, plastic	CL		
6.4							100	Sand, dark gray (Gley 1 4/1), wet, coarse and medium grained sand with gravel, some fine grained sand	SP		
							101	Clay and Silt, very dark greenish gray (Gley 1 3/1), moist, clay and silt with fine grained sand, very stiff, non-plastic	CL		
12.8							102	Sand, dark gray (Gley 1 4/), wet, medium grained sand with coarse grained sand	SP		
6.4							103	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with gravel, some medium grained sand	SP		
9.8							104				
7.3							105	Sand, dark gray (Gley 1 4/), wet, medium grained sand with coarse grained sand	SP		
4.2							106	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some fine grained sand	SP		



LOG OF EXPLORATORY BORING

MW-23C
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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 18 feet TOTAL DEPTH: 215 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							106				
3.7							107	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
6.4							108	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some gravel, some fine grained sand	SP		
			1.7				109				
2.3							110	Sand, dark gray (Gley 1 4/), wet, coarse grained sand, some gravel with medium grained sand	SP		
5.5							111				
							112	Silt and Sand, dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, non-plastic	ML		
7.8							113				
5.3		ND<0.005					114	Sand, dark greenish gray (Gley 1 3/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
							115				
2.9							116				
3.1							117				
							118	Sand, dark greenish gray (Gley 1 3/1), wet, medium grained sand with coarse grained sand	SP		
5.8							119	Sand, dark greenish gray (Gley 1 3/1), wet, coarse grained sand with medium grained sand with fine grained sand, trace gravel	SP		
5.8							120	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel, trace fine grained sand	SP		
			18				121				
11.7							122	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
3.9							123	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, trace fine grained sand	SP		
							124				
3.0							125	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, trace gravel	SP		
4.2							126	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, some coarse grained sand	SP		
							127				
2.6							128	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand with gravel, some fine grained sand	SP		
7.5							129				
							130	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand with fine grained sand	SP		
3.6							131	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some fine grained sand	SP		
6.4							132	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand, some medium grained sand, some fine grained sand, some gravel	SP		



LOG OF EXPLORATORY BORING

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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: 6 - inch Core Barrel			
6.1							133	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel with medium grained sand, some fine grained sand	SP		
5.3							134				
3.3							135	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, trace gravel	SP		
6.6							136				
2.6							137				
3.7							138	Sand, greenish gray (Gley 1 5/), wet, coarse grained sand with medium grained sand, some gravel	SP		
							139				
3.3		12					140	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand	SP		
4.7							141	Sand, gray (Gley 1 5/), wet, medium and coarse grained sand, trace fine grained sand	SP		
							142	Sand, gray (Gley 1 5/), wet, coarse grained sand with gravel, some medium grained sand	SP		
							143	Sand, gray (Gley 1 5/), wet, coarse grained sand and gravel with silty fine sand	SP		
8.8							144				
6.0							145	Sand, gray (Gley 1 5/), wet, coarse grained sand with gravel with medium grained sand, some fine grained sand	SP		
							146				
5.0							147	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand	SP		
4.2							148	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with gravel, some medium grained sand	SP		
							149	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
2.1							150	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, trace gravel	SP		
3.5							151	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with gravel, some medium grained sand	SP		
							152				
1.3							153	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, trace fine grained sand	SP		
8.6							154	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel, some medium grained sand	SP		
							155	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, some gravel	SP		
7.2							156	Sandy Silt, greenish gray (Gley 1 5/1), wet, fine grained sand, trace clay, non-plastic	ML		
6.6							157	Silty Sand, olive brown (2.5Y 4/3), wet, fine grained sand, some medium grained sand	SP		
2.9							158	Sandy Silt, olive brown (2.5Y 4/3), wet, fine grained sand with clay, trace coarse grained sand, stiff, slightly plastic	ML		
7.9							159	Sand and Silt, olive brown (2.5Y 4/3), wet, fine grained sand, trace clay, soft	SP		
3.5							160				
3.6							161				



LOG OF EXPLORATORY BORING

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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 18 feet TOTAL DEPTH: 215 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	11.9		ND<1				159	Silty Sand, olive brown (2.5Y 4/3), wet, fine grained sand, trace clay, non-plastic	SM		
							160	No recovery			
	3.7						163	Sand, olive brown (2.5Y 5/1), wet, fine grained sand, some medium grained sand	SP		
							164	Sand, olive brown (2.5Y 5/1), wet, coarse grained sand, some medium grained sand, some fine grained sand	SP		
	4.9						165	Sand, olive brown (2.5Y 5/1), wet, medium and fine grained sand, some silt	SP		
	8.1						166	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, trace coarse grained sand, some fine grained sand	SP		
	5.4						168	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand, trace silt	SP		
	4.5						170	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand, trace gravel	SP		
	2.9						171				
	4.9						172	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand, some fine grained sand	SP		
	3.2						173	Sand, dark greenish gray (Gley 1 4/1), wet, medium and coarse grained sand, some fine grained sand	SP		
	7.1						174				
	5.3						175	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace coarse grained sand	SP		
	7.8						176	Sand, dark greenish gray (Gley 1 4/1), wet, medium and coarse grained sand, some fine grained sand, trace gravel	SP		
							177	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some coarse grained sand with fine grained sand, trace gravel	SP		
	11.6						178	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand with fine grained sand, some gravel	SP		
	9.1						179	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand with fine grained sand	SP		
	6.9						180	Sand, light olive brown (2.5Y 5/2), wet, coarse grained sand and gravel with cobbles with medium grained sand, some silt, some clay	SP		
	1.2		1.5 ND<1				181				
	1.4						182	Sand, light olive brown (2.5Y 5/2), wet, coarse grained sand with medium grained sand with gravel, some silt, some clay	SP		
	24.3						183				
	6.8						184	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some fine grained sand	SP		



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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 18 feet TOTAL DEPTH: 215 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							185	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some coarse grained sand with fine grained sand, some silt, trace clay	SP		
4.5		ND<0.005					186				
79.3							187	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand, some fine grained sand, trace gravel	SP		
							188				
46							189	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some coarse grained sand, some fine grained sand	SP		
27							190	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand with fine grained sand with gravel, some silt	SP		
							191				
16.3							192	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some coarse grained sand, trace silt	SP		
20.7							193	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand with fine grained sand with gravel, trace silt	SP		
							194	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
4.0							195	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand with gravel, some fine grained sand	SP		
11.9							196	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, trace coarse grained sand	SP		
							197				
7.2							198	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, some fine grained sand, trace silt, some gravel	SP		
10.2							199	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, some fine grained sand, trace gravel	SP		
							200	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, some gravel, some fine grained sand, trace silt	SP		
6.1							201	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel, trace fine grained sand	SP		
11.2							202	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand with fine grained sand, some silt, some gravel	SP		
							203				
8.7							204	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel, some silt	SP		
7.8							205	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand with fine grained sand, some silt, trace gravel	SP		
							206				
12.0							207	Sand, greenish gray (Gley 1 5/1), wet, fine grained sand with medium grained sand with silt, trace clay, dense	SP		
14.4							208	Sand, greenish gray (Gley 1 5/1), wet, fine and medium grained sand with silt, some clay	SP		
							209	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, some silt	SP		
12.6							210	No recovery			
5.8							211				

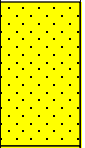
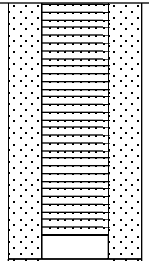
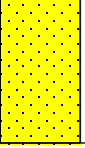
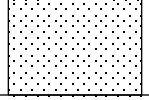


LOG OF EXPLORATORY BORING

MW-23C
 PAGE 8 OF 9

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 6-11, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 18 feet TOTAL DEPTH: 215 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	7.9						212	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, some fine grained sand, trace gravel	SP		
						213					
	4.6						214	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel, trace fine grained sand	SP		
							215				



PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temcula, California

DATE DRILLED: December 4, 2001
 LOGGED BY: Todd Wirths
 APPROVED BY: Gary J. McCue
 DRILLING CO.: THF

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Hollow Stem Auger - 10-inch SAMPLER TYPE: Splitspoon - CA Mod DEPTH TO WATER: 17 feet TOTAL DEPTH: 24.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Silty Sand	SM		
							1				
							2				
							3				
							4				
3							5	Silty Sand, brown, damp, silty very fine to medium grained sand, medium dense, trace coarse grained sand	SM		
5	0						6				
6							7				
							8				
							9	becomes dark brown, damp to moist	SM		
5	0						10				
5							11				
6							12	Sandy Silt, dark brown, moist, very fine to medium grained sandy silt, medium stiff, poor plasticity	ML		
3	0						13	Sand, light yellowish brown, damp, very fine to medium grained sand, medium dense	SP		
4							14				
5							15	Sand, light yellowish brown, damp, very fine to coarse grained sand	SW		
3							16				
4							17	becomes dark grayish brown, some silt	SW		
5	0						18	Silty Sand, dark grayish brown, saturated, silty very fine to fine grained sand, loose	SM		
6							19				
3	0						20	Sand, dark grayish brown, wet, very fine to medium grained sand, loose, some silt	SP		
4							21	Sand, very fine to coarse grained sand, loose	SW		
4							22	Sandy Silt, olive gray, wet, very fine to medium grained sandy silt, stiff, poor plasticity	ML		
4	0						23	Sand, gray, wet, very fine to medium grained sand, loose, some silt, trace coarse sand	SP		
5							24	Silt, very dark gray, wet, stiff	ML		



LOG OF EXPLORATORY BORING

MW-24A
 PAGE 1 OF 1

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 16-17, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 21 feet TOTAL DEPTH: 69 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Sand, olive brown (2.5Y 4/3), dry, medium and fine grained sand, some silt			
							1				
							2				
							3				
							4				
							5	MW-24AB located 5 feet from MW-24B, begin logging hole at 50 feet below grade			
							6				
							7				
							8				
							9				
							10				
							11				
							12				
							13				
							14				
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				

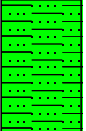




LOG OF EXPLORATORY BORING

MW-24AB
 PAGE 1 OF 3

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 16-17, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 21 feet TOTAL DEPTH: 69 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL	
								DESCRIPTION				
							27					
							28					
							29					
							30					
							31					
							32					
							33					
							34					
							35					
							36					
							37					
							38					
							39					
							40					
							41					
							42					
							43					
							44					
							45					
							46					
							47					
							48					
							49					
6.1							50	Silt and Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, non-plastic, cohesive	ML			
							51					
							52	Sand, very dark greenish gray (Gley 1 3/1), wet, fine and medium grained sand, some silt, non-cohesive	SM			
5.8								Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, some fine grained sand, low	ML			



LOG OF EXPLORATORY BORING

MW-24AB
 PAGE 2 OF 3

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 16-17, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 21 feet TOTAL DEPTH: 69 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL	
								DESCRIPTION				
	4.8						53	plasticity, cohesive				
							54	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand, trace silt	SP			
	2.8						55	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay with fine grained sand, non-plastic, cohesive	ML			
	5.0						56	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay, very low plasticity, cohesive	ML			
							57	Silt and Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, non-cohesive	ML			
							58	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay with fine grained sand, non-plastic, cohesive	ML			
	3.3						59	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, some clay, non-plastic	ML			
	6.7						60	Silt, very dark greenish gray (Gley 1 3/1), wet, silt and fine grained sand, trace clay	ML			
							61	Sand, very dark greenish gray (Gley 1 3/1), wet, fine and medium grained sand with silt	SM			
	6.5						62	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt with medium grained sand	SM			
	8.6						63	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand with silt	SM			
							64	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand, trace silt	SP			
	8.1						65	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt, some medium grained sand	SM			
	6.1						66	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some coarse grained sand	SP			
							67	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt, trace medium grained sand	SM			
	7.3						68	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, non-plastic	SM			
	5.6						69	Clay, very dark greenish gray (Gley 1 3/1), wet, clay with silt, moderately plastic, cohesive	CL			
	6.2											
	3.3											
	15.1											
	11.6											



LOG OF EXPLORATORY BORING

MW-24AB
 PAGE 3 OF 3

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 27-29, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 98 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Fill, sand, brown (10YR 4/), dry, fined grained silty sand			
							1				
							2				
							3				
							4				
	6.1						5	Clayey Sand, very dark grayish brown (10YR 3/2), moist, fine grained sand, trace coarse grained sand, clay and silt stringers	SC		
							6				
							7				
	5.4						8	Silty Sand, dark brown (10YR 3/2), moist, fine grained sand with clay, some coarse grained sand, trace medium grained sand	SM		
	11.3						9				
							10				
	4.2						11	Sand, dark gray brown (10YR 3/), damp/moist, coarse grained sand	SP		
	9.6						12				
							13	Clayey Silt, very dark brown (10YR 3/2), damp/moist, trace fine grained sand	ML		
							14				
							15	Silt, dark gray brown (10YR 3/2), moist, silt with fine grained sand, some clay	ML		
							16				
							17	Sand, light yellow brown (2.5Y 6/3), damp/moist, medium and coarse grained sand	SP		
	8.8						18				
	14.9						19	Silty Sand, brown (10YR 3/), moist, fine grained sand with clay, 60% recovery for this interval	SM		
							20				
							21	Sand, light yellow brown (2.5Y 3/3), damp, medium grained sand, some coarse grained sand	SP		
	24.6						22				
	18.7						23	Sand, light yellow brown (2.5Y 3/3), moist-almost wet, medium grained sand, some coarse grained sand	SP		
							24	Sand, light yellow brown (2.5Y 3/3), wet, coarse grained sand with medium grained sand	SP		
							25				
							26	Sand, light yellow brown (2.5Y 3/3), wet, medium grained sand with coarse grained sand	SP		
	10.0						27	Sand, light green brown (2.5Y 4/3 olive brown), wet, fine grained sand with silt	SP		
	24.2						28				
							29	Clay, green (Gley 1 3/1), wet, clay, trace silt, trace mica, very plastic	CL		
							30				
	15.2	ND<0.005					31				
	14.6			72.87	27.07	99.94	32				
							33				
							34	Sand, dark green (Gley 1 2.5/1), wet, coarse grained sand with medium grained sand	SP		
							35				
	7.4						36				
	5.5						37	Sand, dark green (Gley 1 2.5/1), wet, medium and fine grained sand, trace silt	SP		
							38				
							39				
							40				



LOG OF EXPLORATORY BORING

MW-24B
 PAGE 1 OF 4

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 27-29, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: 6 - inch Core Barrel			
2.8							27				
3.1							28	Sand, dark green (Gley 1 2.5), wet, coarse grained sand with medium grained sand, some gravel	SP		
							29	Sand, dark green (Gley 1 2.5), wet, medium grained sand with coarse grained sand	SP		
3.4							30	Sand, light gray green (Gley 1 7/1), wet, coarse grained sand with gravel	SP		
3.1							31				
							32	Sand, light green (Gley 1 7/1), wet, coarse grained sand, trace medium grained sand, trace gravel	SP		
2.9							33	Sand, light gray (Gley 1 7/1), wet, coarse grained sand, trace medium grained sand, trace gravel	SP		
8.2							34	Sand, light gray (Gley 1 7/1), wet, coarse grained sand with medium grained sand, trace silt, trace gravel	SP		
							35	Silty Sand, dark green (Gley 1 3/1), wet, fine grained sand with clay, non-plastic	SM		
13.5		ND<0.005					36				
11.5							37	Silty Sand, dark green (Gley 1 3/1), wet, fine grained sand and clay	SM		
				62.12	10.86	72.98	38	Silt, dark green (Gley 1 3/1), wet, silt with clay with fine grained sand	ML		
15.7							39	Sand, dark green (Gley 1 3/1), wet, medium and fine grained sand, some silt	SP		
7.7							40	Silty Sand, dark green (Gley 1 3/1), wet, fine grained sand	SM		
							41	Sand, dark green (Gley 1 3/1), wet, medium grained sand, some coarse grained sand, some fine grained sand	SP		
							42				
11.2							43				
10.5							44	Sand, dark greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand	SP		
							45	Sand, dark greenish gray (Gley 1 5/1), wet, medium grained sand with silt stringers with fine grained sand	SM		
6.9							46	Sand, dark greenish gray (Gley 1 5/1), wet, medium grained sand and coarse grained sand, trace of gravel, some silt	SM		
7.2							47				
							48				
7.6							49	Sand, dark greenish gray (Gley 1 5/1), wet, medium grained sand, trace gravel, some silt	SP		
12.9							50	Sand, dark greenish gray (Gley 1 3/1), wet, fine grained sand with medium grained sand, some silt	SP		
							51				
							52	Sand, dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt	SM		
10.3								Clayey Silt, dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand	ML		



LOG OF EXPLORATORY BORING

MW-24B
 PAGE 2 OF 4

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 27-29, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 98 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
6.0							53	Sand, dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand, some silt	SP		
		1.1					54	Clayey Silt, dark green (Gley 1 3/1), wet, silt with fine grained sand	ML		
10.8							55	Silt, dark green (Gley 1 3/1), wet, silt with clay, trace coarse grained sand, slightly plastic	ML		
9.2							56	Silt, dark greenish gray (Gley 1 3/1), wet, silt and fine grained sand	ML		
		ND<0.005		68.56	9.56	78.12	57	Clayey Silt, dark greenish gray (Gley 1 3/1), wet, trace gravel, non-plastic	ML		
12.7							58	Sand, dark greenish gray (Gley 1 3/1), wet, fine and medium grained sand, trace clay, with silt	SM		
13.2							59				
13.1		1.4					60	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt	SM		
7.8							61				
		0.77					62	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand, trace coarse grained sand	SP		
12.6							63	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand, trace silt	SP		
8.2							64	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand	ML		
		ND<0.005					65	Sand, very dark greenish gray (Gley 1 3/1), wet, coarse grained sand with medium grained sand	SP		
11.7							66	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with gravel	SP		
11.8							67				
55							68	Clay, very dark greenish gray (Gley 1 3/1), wet, clay, trace silt, medium to highly plastic	CL		
242	0.081			*	*	18.06	69				
							70	Clay, dark greenish gray (Gley 1 3/1), moist/damp, clay, some silt, trace fine grained sand, low plasticity	CL		
195	0.02						71				
33.5		ND<0.005					72	Clay, dark greenish gray (Gley 1 3/1), moist/damp, clay, some silt, trace fine grained sand, low to medium plasticity	CL		
8.4							73	Clay, dark greenish gray (Gley 1 3/1), moist/damp, clay, some silt, low plasticity	CL		
12.5							74				
				50.6	12.26	62.86	75	Silty Clay, dark greenish gray (Gley 1 3/1), damp/moist, some fine grained sand	CL		
18.5							76	Silty Clay, dark greenish gray (Gley 1 3/1), moist/damp, clay, trace fine grained sand, non-plastic	CL		
10.1							77	Clayey Silt, dark greenish gray (Gley 1 3/1), damp/moist, silt, trace fine grained sand, non-plastic	ML		
							78	Silt, dark greenish gray (Gley 1 3/1), moist/damp, silt with clay, some fine grained sand, non-plastic	ML		
9.4							79	Clayey Silt, dark greenish gray (Gley 1 3/1), moist/damp, silt, trace fine grained sand, low plasticity	ML		
3.2											



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: October 27-29, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 98 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
8.3				74.76	19.79	94.54	80	Clay and Silt, very dark greenish gray (Gley 1 3/1), damp/moist, slightly plastic	CL		
9.4							81				
							82	Silty Clay, very dark greenish gray (Gley 1 3/1), moist, low plasticity	CL		
5.0							83				
3.2		ND<0.005		71.13	20.01	91.14	84	Silt and Clay, dark greenish gray (Gley 1 3/1), moist, slightly plastic	ML		
							85	Clayey Silt, dark greenish gray (Gley 1 3/1), moist-almost dry, some fine grained sand, non-plastic	ML		
7.6							86	Silt, very dark greenish gray (Gley 1 3/1), slightly damp, silt with clay, some fine grained sand	ML		
5.1							87	Silt, very dark green (Gley 1 3/1), damp, silt with very fine grained sand, some clay	ML		
							88				
							89				
							90	Silty Sand, very dark green (Gley 1 3/1), damp, very fine grained sand	SM		
7.1							91	Sand, greenish gray (Gley 1 5/1), wet, medium and coarse grained sand	SP		
3.9							92	Sand, greenish gray (Gley 1 5/1), wet, medium and coarse grained sand, trace fine grained sand	SP		
5.0							93				
6.6							94	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, trace fine grained sand	SP		
				20.04	3.74	23.79	95				
7.0							96				
6.2							97	Sand, greenish gray (Gley 1 5/1), wet, medium and coarse grained sand, some fine grained sand	SP		
8.1							98				
6.5											
7.7											



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28- December 2, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 181.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	MW-24C located near MW-24B, begin logging hole at 40 feet below grade			
							1				
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				
							13				
							14				
							15				
							16				
							17				
							18				
							19				
							20				
							21				
							22				
							23				
							24				
							25				
							26				



LOG OF EXPLORATORY BORING

MW-24C
 PAGE 1 OF 7

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28- December 2, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 181.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							27				
							28				
							29				
							30				
							31				
							32				
							33				
							34				
							35				
							36				
							37				
							38				
							39				
							40	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand	SP		
4.5							41	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and coarse grained sand, some fine grained sand	SP		
							42	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand, some coarse grained sand	SP		
4.2							43	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and coarse grained sand, some fine grained sand	SP		
4.5							44				
							45				
1.4							46				
3.7							47	Sand, greenish black (Gley 1 2.5/1), wet, fine grained sand with medium grained sand with silt	SP		
7.5							48	Silt and Sand, greenish black (Gley 1 2.5/1), wet, fine grained sand, some clay, non-plastic	ML		
5.9							49	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and coarse grained sand with fine grained sand	SP		
							50	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some medium grained sand, trace clay, non-cohesive	SM		
5.8							51				
6.9							52				
6.7								Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay with fine grained sand, low	ML		



LOG OF EXPLORATORY BORING

MW-24C
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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28- December 2, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 181.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
7.5							53	plasticity Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay, medium plastic, cohesive	SM ML		
							54	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, non-cohesive, non-plastic	SM		
2.8							55	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with medium grained sand, non-cohesive	SP		
5.6							56	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, some clay, very low plasticity, lowly cohesive	ML		
4.6							57	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, some clay, non-plastic, lowly cohesive	ML		
							58	Sand, dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt	SM		
6.2							59	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with medium grained sand with silt, trace coarse grained sand	SP		
2.1							60	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt, some clay, trace medium grained sand	SM		
9.2							61	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some medium grained sand, trace silt	SP		
4.8							62	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand with silt, dense, non-plastic, trace gravel	SP		
							63				
1.5							64	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and coarse grained sand, trace gravel	SP		
3.6							65	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and coarse grained sand with gravel, some fine grained sand	SP		
							66	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand, some coarse grained sand	SP		
4.0							67	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and coarse grained sand, some gravel	SP		
79			180				68	Sand, very dark greenish gray (Gley 1 3/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
575		0.36 1.2 0.63					69	Silt, dark greenish gray (Gley 1 4/1), wet, silt with clay with fine grained sand	ML		
1,049							70	Clay and Silt, very dark greenish gray (Gley 1 3/1), wet, medium plastic, cohesive	CL		
69.2							71	Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, with fine grained sand, non-plastic, cohesive	ML		
							72				
51.1							73	Clay, very dark greenish gray (Gley 1 3/1), wet, clay and silt, trace fine grained sand, medium plastic, cohesive	CL		
13.6							74	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay with fine grained sand, cohesive	ML		
							75	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, some clay, non-plastic, cohesive	ML		
8.8							76	Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, some fine grained sand, medium plastic, cohesive	ML		
4.8							77	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay, trace of fine grained sand, non-plastic, cohesive	ML		
3.1							78				
4.2							79				



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28- December 2, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 181.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
5.8							79.5	Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, low plasticity, cohesive	ML		
5.7							80	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay, trace fine grained sand	ML		
							81	Silty Clay, very dark greenish gray (Gley 1 3/1), wet, clay, medium plastic, cohesive	CL		
							82	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with clay, non-plastic, cohesive	ML		
6.2							82	Sandy Silt, very dark greenish gray (Gley 1 3/1), damp/moist, fine grained sand, some clay, non-plastic, cohesive	ML		
4.0							83				
							84	Silt and Sand, very dark greenish gray (Gley 1 3/1), damp/moist, fine grained sand, trace clay, non-plastic, cohesive	ML		
3.9							84				
4.7							85	Silty Sand, very dark greenish gray (Gley 1 3/1), damp, fine grained sand, non-plastic to moderately plastic	SM		
5.4							86	Sandy Silt, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, non-plastic, cohesive	ML		
5.7							87	Silty Sand, very dark greenish gray (Gley 1 3/1), wet-damp, fine grained sand, trace clay, non-plastic, cohesive	SM		
							88				
							89				
10.2							90	Sand, dark greenish gray (Gley 1 4/1), damp/moist, medium grained sand with fine grained sand, trace silt, non-cohesive	SP		
4.8							91				
							92				
4.6							93	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand, non-cohesive	SP		
5.9							94				
							95	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some fine grained sand, trace gravel	SP		
13.8							96	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
4.7							97				
							98				
6.9							99				
7.0							100				
6.2							100	Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, cohesive, medium plastic	ML		
3.8							101	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, trace fine grained sand, trace gravel, non-cohesive	SP		
							102				
3.5							103				
6.1							104				
							104	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand with gravel, some cobbles, non-cohesive	SP		
9.2							105				
1.5							105				



LOG OF EXPLORATORY BORING

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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28- December 2, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 181.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							106				
2.5							107	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some coarse grained sand, trace fine grained sand, non-cohesive	SP		
4.7							108	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel, some medium grained sand, non-cohesive	SP		
							109	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand with gravel, non-cohesive	SP		
3.8							110	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel, some cobbles, some medium grained sand	SP		
4.6							111				
			ND<2.0				112	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, trace gravel	SP		
2.7							113				
0.6							114				
							115	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, some coarse grained sand	SP		
3.4							116				
2.5							117	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, trace gravel	SP		
4.5							118	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, trace silt, some coarse grained sand, trace gravel	SP		
3.2							119				
							120	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand, some coarse grained sand with fine grained sand	SP		
2.7							121				
5.9							122	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, trace gravel	SP		
7.4							123				
6.7							124	Sand, greenish gray (Gley 1 5/1), wet, fine and medium grained sand, trace silt	SP		
18.3							125				
5.9							126	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand with coarse grained sand	SP		
							127				
11.1							128				
12.2							129	Silt and Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand, some clay, cohesive, non-plastic	ML		
9.6							130	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, some fine grained sand, some silt	SP		
3.7							131				
			ND<2.0				132	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand	SP		



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28- December 2, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 181.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
4.3							133	with gravel			
7.6							134				
5.6							135	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand, some coarse grained sand, some fine grained sand	SP		
7.2							136				
7.0							137	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
10.5							138				
10.5							139				
9.7							140	Sand, greenish gray (Gley 1 5/1), wet, fine grained sand with silt, cohesive, trace medium grained sand	SM		
							141	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, trace gravel	SP		
							142	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, trace silt	SP		
9.9							143	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel	SP		
13.4							143	Silt, dark greenish gray (Gley 1 4/1), wet, silt with gravel with fine grained sand	ML		
							144	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel with medium grained sand, trace fine grained sand, trace cobbles	SP		
10.5							145				
4.7							145	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand with fine grained sand, trace gravel	SP		
							146				
							147				
13.5							148	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, some fine grained sand, some gravel	SP		
11.8							149				
							150	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with silt with gravel, non-cohesive	SP		
8.1							151	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand with cobbles, trace fine grained sand	SP		
8.7							152	Sand, greenish gray (Gley 1 3/1), wet, coarse grained sand with gravel, with medium grained sand, some cobbles, non-cohesive	SP		
24.9							153				
16.6							154				
							155				
13.3							156				
9.4							157				
							158	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, lowly cohesive	SP		
19.4											
16.5											



LOG OF EXPLORATORY BORING

MW-24C
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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: November 28- December 2, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 20 feet TOTAL DEPTH: 181.5 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							159	Sand, greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, non-cohesive	SP		
6.6							160	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
14.9							161				
							162				
18.5							163				
16.9							164	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with gravel, some cobbles, some medium grained sand	SP		
8.5							165	Silt and Clay, very dark greenish gray (Gley 1 3/1), wet, with fine grained sand, medium plasticity, cohesive	ML		
11.1							166				
							167	Silty Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, non-cohesive	SM		
15.3							168	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand	SP		
9.2							169				
							170	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand and medium grained sand	SP		
9.9							171	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt, non-plastic, cohesive	SM		
4.7							172	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some silt, non-cohesive	SP		
							173	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace silt, non-cohesive	SP		
9.1							174				
8.4							175	Silty Sand, olive brown (2.5Y 4/4), wet, fine grained sand, some clay, non-plastic, semi-cohesive	SM		
14.5							176	Sand, olive brown (2.5Y 4/4), wet, medium grained sand with laminar coarse grained lenses with fine grained sand, non-cohesive	SP		
6.2							177				
4.7							178	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, trace fine grained sand, non-cohesive	SP		
5.8							179				
							180				
10.7							181				
			ND<2.0								



LOG OF EXPLORATORY BORING

MW-24C
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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 29803 Rancho California Road
 Temecula, California

DATE DRILLED: October 25-27, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19 feet TOTAL DEPTH: 113 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Artificial fill, sand, tan (grayish brown 10YR 5/2), dry, fine grained sand with silt, some gravel			
							1				
							2				
							3				
							4				
	6.2						5	Sand, brown (10YR 3/2), dry, fine grained sand, trace medium grained sand	SM		
							6	becomes dark brown (10YR 3/3), some clay	SM		
	7.9						7				
	5.1						8	becomes tan (10YR 5/3), some medium sand	SM		
							9				
	12.5						10	Clayey Sand, dark brown (10YR 3/2), slightly moist, some medium grained sand	SC		
	14.7						11				
							12	Sand, dark brown (10YR 3/2), slightly moist, fine and medium grained sand with clay, some silt	SC		
	20.0						13	Sand, tanish green (Gley 1 4/1), moist, medium grained sand, some silt	SP		
	6.9						14	Silty Sand, tanish green (2.5 Y 4/2), moist, trace clay	SM		
							15	Fine Sand and Silt, brown (2.5Y 4/2), moist, very fine grained sand, trace clay	SM		
	3.8						16				
	15.6						17	Silty Sand, brown (5Y 4/2), very moist, fine grained sand, trace gravel, mica	SM		
							18	Sand, green (Gley 1 3/1), wet, fine grained sand with silt, some medium grained sand	SM		
	16.2						19	Sand, gray (Gley 1 4/1), wet, coarse grained sand, some medium grained sand	SP		
	9.8						20	Sand, tan (5Y 5/3), wet, coarse grained sand, some medium grained sand, some fine grained sand	SP		
	2.6						21	Sand, gray green (Gley 1 3/1), wet, coarse grained sand with medium grained sand	SW		
	9.7						22	Silt, green (Gley 1 3/1), moist, silt, some clay	ML		
	7.0						23	Silt, green (Gley 1 3/1), moist, silt, some fine grained sand with clay, slightly plastic	ML		
	7.8						24	Clay, dark green (Gley 1 3/1), dry to moist, clay	CL		
							25	Silt, dark green (Gley 1 3/1), moist, silt, some clay	ML		
							26	Clay, dark green (Gley 1 3/1), moist, clay, some silt, low plasticity	CL		
	5.3						27	Sand, dark green (Gley 1 2.5/1), wet, coarse grained sand, some medium grained sand	SP		
	6.7						28	Sand, dark green (Gley 1 2.5/1), wet, fine grained sand with medium grained sand with coarse grained sand	SM		



LOG OF EXPLORATORY BORING

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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 29803 Rancho California Road
 Temecula, California

DATE DRILLED: October 25-27, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19 feet TOTAL DEPTH: 113 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							27	Sand, dark green (Gley 1 2.5/1), wet, coarse grained sand	SW		
4.3							27	Silt, dark green (Gley 1 2.5/1), wet, silt, some fine grained sand, non-plastic	ML		
14.3							28	Sand, green (Gley 1 2.5/1), wet, coarse grained sand with medium grained sand, some mica	SW		
							29				
2.5							30	Sand, green (Gley 1 5/1), wet, coarse grained sand, some medium grained sand	SP		
3.2							31				
1.6							32				
1.8							33	Sand, green (Gley 1 5/1), wet, coarse grained sand, some medium grained sand, well rounded, trace gravel	SP		
							34	Sand, green (Gley 1 5/1), wet, coarse grained sand, trace gravel	SP		
3.9							35	Sand, green (Gley 1 5/1), wet, coarse grained sand with gravel	SP		
4.7							36	Silt, dark green (Gley 1 5/1), moist, silt, some medium grained sand, some fine grained sand, some clay, non-plastic	ML		
							37	Sand, greenish gray (Gley 1 3/1), wet, coarse grained sand, some medium grained sand, some gravel	SW		
4.6							38	Sand, green gray (Gley 1 3/1), wet, coarse grained sand, gravely, well rounded	SW		
2.0							39				
6.0							40	Sand and Silt, dark green (Gley 1 3/1), wet, fine grained sand, mica, non-plastic	SM		
1.3				42.88	6.21	49.09	41				
							42	Silty Sand, dark green (Gley 1 3/1), moist, fine grained sand, non-plastic	SM		
10.7							43	Silty Sand, dark green (Gley 1 3/1), moist to wet, fine grained sand, mica	SM		
6.0				57.31	10.17	67.48	44				
							45	Sand, dark green (Gley 1 3/1), wet, medium and coarse grained sand, trace fine grained sand, well rounded	SP		
20.4							46				
11.8							47				
4.4							48				
3.7							49				
							50	Sand, dark green (Gley 1 5/1), wet, coarse grained sand with gravel, well rounded	SP		
2.3							51				
8.4							52				
							52	Sand, dark green (Gley 1 5/1), wet, medium grained and coarse grained sand	SP		



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
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 29803 Rancho California Road
 Temecula, California

DATE DRILLED: October 25-27, 2001
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 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19 feet TOTAL DEPTH: 113 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							53				
							54				
9.3							55	Sand, dark green (Gley 1 5/1), wet, coarse grained sand and medium grained sand	SP		
9.3							56				
							57				
8.0		ND<0.005					58	Sand, dark green (Gley 1 5/1), wet, coarse grained sand and medium grained sand, well rounded	SP		
3.9							59	Silt, dark green (Gley 1 5/1), moist, silt with clay, tough, non-plastic	ML		
		ND<0.005		46.7	7.48	54.18	60	Sand, dark green (Gley 1 2.5/1), wet, fine grained sand with silt, non-plastic	SM		
6.8							61				
3.5		ND<0.005					62				
							63	Sand, dark green (Gley 1 2.5/1), wet, fine grained sand with silt	SM		
5.9							64				
12.2							65	Sand, dark green (Gley 1 2.5/1), wet, fine grained sand with silt, non-plastic	SP		
							66	Sand, dark green (Gley 1 2.5/1), wet, medium grained sand with fine grained sand	SP		
16.2							67	Silt, dark green (Gley 1 2.5/1), wet, silt with fine grained sand, trace clay	ML		
6.4							68	Sand, dark green (Gley 1 2.5/1), wet, medium grained sand with fine grained sand with silt, non-plastic	SM		
							69	Sand, dark green (Gley 1 2.5/1), wet, medium grained sand with fine grained sand	SP		
8.0				29.3	3.57	32.86	70	Silty Sand, dark green (Gley 1 2.5/1), wet, fine grained sand with clay, non-plastic	SM		
6.2							71	Sand, dark green (Gley 1 3/1), wet, fine grained sand, some silt, trace clay	SM		
6.3							72	Sand, dark green (Gley 1 3/1), wet, fine grained sand and silt	SM		
							73				
8.8							74	Sand, dark green (Gley 1 3/1), wet, fine grained sand with silt, trace clay	SM		
5.3							75	Silt, dark green (Gley 1 3/1), moist, silt and clay, trace fine grained sand, low plasticity	ML		
							76	Clay, dark green (Gley 1 3/1), moist, silty clay, low plasticity	CL		
8.8				71.9	12.62	84.52	77	Sand, dark green (Gley 1 3/1), wet, fine grained sand, some silt	SP		
4.2							78				
							79	Sand, dark green (Gley 1 2.5/1), wet, medium grained sand with coarse grained sand, trace silt	SP		
6.4											
2.5								Sand, gray green (Gley 1 4/3), wet, coarse grained sand, some medium grained sand	SP		
5.2											



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 29803 Rancho California Road
 Temecula, California

DATE DRILLED: October 25-27, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: 6 - inch Core Barrel			
							80	Sand, gray green (Gley 1 4/1), wet, coarse grained sand with medium grained sand	SP		
5.8							81	Sand, gray green (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some cobbles, well rounded	SP		
4.2							82				
5.1							83	Sand, gray green (Gley 1 4/1), wet, coarse grained sand, some gravel, with medium grained sand	SP		
7.3							84				
9.6							85	Sand, gray green (Gley 1 4/1), wet, coarse grained sand, some medium grained sand, well rounded	SP		
3.5		ND<0.005					86				
3.4							87	Silty Clay, gray green (Gley 1 4/1), wet, clay, trace fine grained sand, semi-plastic	CL		
9.3		ND<0.005		61.77	12.48	74.24	88	Clayey Silt, gray green (Gley 1 4/1), wet, silt, trace of fine grained sand, slightly plastic	ML		
4.9				49.02	10.93	59.95	89	Silty Sand, gray green (Gley 1 4/1), wet, fine grained sand, very dense, non-plastic	SM		
11.5		ND<0.005		51.12	10.47	61.59	90	Clay, dark green (Gley 1 4/1), moist, clay with silt	CL		
10.7				48.92	11.28	60.2	91				
8.6							92	Clay, dark green (Gley 1 4/1), moist, clay, some fine grained sand, very low plastic	CL		
							93	Clayey Silt, dark green (Gley 1 4/1), moist, silt, non-plastic	ML		
							94	Clayey Silt, dark green (Gley 1 4/1), moist, silt, low-medium plasticity	ML		
2.5							95	Silty Clay, dark green (Gley 1 3/1), wet, clay, trace fine grained sand, medium plastic	CL		
10.1							96				
14.1							97				
9.0							98				
							99				
3.7							100				
11.1							101				
		ND<0.005		74.25	12.52	86.77	102				
10.7							103	Clayey Silt, dark green (Gley 1 3/1), moist, silt, non-plastic	ML		
10.1							104	Silt, dark green (Gley 1 3/1), moist to dry, silt with clay, non-plastic	ML		
							105	Clayey Silt, dark green (Gley 1 3/1), moist, silt with very fine sand	ML		
10.3											
24.2		ND<0.005					105	Silty Sand, dark green, (Gley 1 4/1), moist, fine grained sand with clay	SM		



LOG OF EXPLORATORY BORING

MW-25B
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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 29803 Rancho California Road
 Temecula, California

DATE DRILLED: October 25-27, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary J. McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 19 feet TOTAL DEPTH: 113 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	14.5			*	*	14.68	106	Sand, dark green, (Gley 1 4/1), wet, medium grained sand with coarse grained sand	SP		
	9.9			*	*		107				
				*	*		108	Sand, gray green (Gley 1 5/1), wet, coarse grained sand with medium grained sand	SP		
	8.0			*	*		109				
	11.3			*	*		110	Sand, gray green (Gley 1 5/1), wet, medium grained sand with fine grained sand, well rounded	SP		
		ND<0.005		*	*	7.61	111				
	15.0			*	*		112				
				*	*		113				



PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 3-8, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 22 feet TOTAL DEPTH: 209 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							0	Fill, sand, olive brown (2.5Y 4/4), moist, medium and fine grained sand, some silt			
							1				
							2				
							3				
							4				
							5	No recovery			
	5.0						6	Sand, olive brown (2.5Y 4/3), dry, fine sand with silt with medium grained sand, some gravel	SM		
	9.4						7				
	10.6						8	Silt, light olive brown (3.5Y 3/4), dry, silt and fine grained sand, some clay	ML		
							9	Silt, very dark olive brown (2.5Y 3/2), dry, silt with clay with fine and medium grained sand, low plasticity	ML		
	24.3						10	Sand, dark grayish brown (2.5Y 4/2), dry, medium grained sand with fine grained sand, trace coarse grained sand	SP		
	6.1						11				
							12	Sand, greenish gray (Gley 1 6/2), dry, medium grained sand and fine grained sand, trace gravel	SP		
	12.7						13				
	17.1						14	Sand, greenish gray (Gley 1 5/1), dry, fine grained sand with medium grained sand with silt, trace clay, non-cohesive	SP		
							15	Sand, olive brown (2.5Y 4/3), dry, fine grained sand with silt with medium grained sand	SM		
	18.6						16				
	7.1						17	Sand, dark olive brown (2.5Y 3/1), dry, fine grained sand with silt	SM		
	16.0						18	Silt, very dark gray (2.5Y 3/1), damp, silt with clay with fine grained sand, non-plastic, non-cohesive	ML		
	10.8						19				
							20	Sand, olive brown (2.5Y 4/3), dry, fine grained sand with medium grained sand, some silt	SP		
	11.5						21	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, trace silt	SP		
	13.0						22	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand, some silt, trace gravel	SP		
			ND<2.0				23	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some fine grained sand, some coarse grained sand, trace gravel	SP		
	12.6						24				
	7.2						25	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, trace clay, cohesive	SM SP		
	9.3						26	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand			
	11.7							Silt, very dark greenish gray (Gley 1 3/1), wet, silt with very fine sand, some clay, non-plastic, non-cohesive	ML		



LOG OF EXPLORATORY BORING

MW-26C
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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 3-8, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 22 feet TOTAL DEPTH: 209 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
4.0							27	Sand, dark greenish gray (Gley 1 4/1), wet, medium and coarse grained sand, some fine grained sand, trace gravel	SP		
7.4							28	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace coarse grained sand	SP		
							29				
9.9							30	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand and medium grained sand, trace silt, cohesive	SP		
10.9							31				
							32	Sand, dark greenish gray (Gley 1 4/1), wet, medium and coarse grained sand with fine grained sand	SP		
10.8							33				
11.2							34	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand with gravel	SP		
							35	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some gravel, trace fine grained sand	SP		
12.8							36				
5.3							37				
							38	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
5.8							39	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
4.5							40	Silt, very dark greenish gray (Gley 1 3/1), wet, silt and fine grained sand, some clay, non-plastic, cohesive	ML		
5.3							41				
9.8							42	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, trace clay, cohesive, non-plastic	SM		
17.2							43	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand, some silt, non-cohesive	SP		
10.9							44	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with medium grained sand, trace silt, non-cohesive	SM		
							45	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, trace medium grained sand	SM		
13.0							46	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand with silt	SM		
8.0							47	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with medium grained sand, some silt	SM		
							48	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand, some silt	SM		
12.2							49	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some medium grained sand, trace clay	SM		
7.3							50	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace silt	SP		
18.7							51	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand, some silt, some medium grained sand	SM		
2.2							52	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace silt, trace gravel, trace coarse grained sand	SP		



LOG OF EXPLORATORY BORING

MW-26C
 PAGE 2 OF 8

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 3-8, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 22 feet TOTAL DEPTH: 209 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
6.4							53	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some fine grained sand, trace gravel	SP		
9.8							54				
7.5							55	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, some silt	SM		
4.6							56	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, trace coarse grained sand	SP		
4.7							57	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand, some fine grained sand	SP SP		
9.2							58	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some silt			
							59	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some gravel, trace fine grained sand	SP		
19.5							60	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some coarse grained sand	SP		
4.1							61	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, slightly cohesive	SM		
							62	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand and medium grained sand	SP		
9.2							63	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, some clay, slightly plastic, cohesive	ML		
9.4							64	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some coarse grained sand, some fine grained sand	SP		
							65	Sand, greenish gray (Gley 1 5/1), wet, medium and coarse grained sand, trace gravel	SP		
8.5							66				
7.9							67	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, trace silt	SP		
							68				
6.6							69	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel, trace fine grained sand	SP		
6.8							70				
7.1							71	Sand, greenish gray (Gley 1 5/1), wet, coarse and medium grained sand, some gravel	SP		
3.8							72				
							73	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, trace silt	SP SP		
8.9							74	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel			
6.6							75				
							76	Sand, dark greensih gray (Gley 1 4/1), wet, medium grained sand, some coarse grained sand, some fine grained sand, trace silt	SP		
6.9							77				
3.7							78	Sand, gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some silt, some gravel	SP		
3.9							79				
5.6											



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 3-8, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								SAMPLER TYPE: 6 - inch Core Barrel			
11.5							80	Sand, gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
4.1			ND<2.0				81	Sand, gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some fine grained sand	SP		
							82				
3.6							83	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand	SP		
5.3							83	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand, trace fine grained sand	SP		
							84				
4.7							85	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand with clay, medium plastic, cohesive	ML		
2.5							85	Sand, very dark gray (Gley 1 3/), wet, coarse grained sand with gravel, some medium grained sand	SP		
							86				
							87	Silty Sand, very dark gray (Gley 1 3/), wet, fine grained sand, trace clay, slightly cohesive	SM		
5.0							88	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, some clay, cohesive, non-plastic	ML		
6.2				64.24	9.55	73.79	88	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with medium grained sand with gravel, some fine grained sand	SW		
							89				
4.9							90	Sand, dark gray (Gley 1 4/), wet, coarse grained sand with medium grained sand with cobbles	SP		
3.1							91				
							92	Sand, dark greenish gray (Gley 1 4/1), wet, fine and medium grained sand, trace silt	SP		
6.7							93	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some fine grained sand	SP		
4.6							94	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand, some coarse grained sand, some fine grained sand	SP		
							95	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some coarse grained sand, some gravel, trace silt	SP		
6.2							96				
3.2							97	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, some silt, trace coarse grained sand	SP		
							98				
1.6							99	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some gravel, some fine grained sand	SP		
5.6							100	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, some clay, cohesive, low plasticity	ML		
4.1							100	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt, some medium grained sand, cohesive	SM		
2.6							101	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with fine grained sand, trace silt, non-cohesive	SP		
							102				
5.8							102	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand, some silt, trace clay, cohesive, non-plastic	SM		
6.0							103	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, non-plastic, slightly cohesive	SM		
							104				
8.7							105	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some medium grained sand, trace clay, non-plastic, slightly cohesive	SM		
9.1											



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 3-8, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 22 feet TOTAL DEPTH: 209 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							106				
10.2							107	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt with medium grained sand, non-cohesive	SM		
9.1							108	Silt, dark greenish gray (Gley 1 4/1), moist, silt with clay, some gravel, some fine grained sand, cohesive, medium plastic	ML		
							109	Silty Sand, dark greenish gray (Gley 1 4/1), moist, fine grained sand, non-cohesive, non-plastic, trace clay	SM		
17.2							110	Sand, very dark gray (Gley 1 3/1), wet, fine grained sand with silt, cohesive, some medium grained sand, non-plastic, cemented	SM		
2.9							111	Sand, very dark greenish gray (Gley 1 3/1), wet, medium and fine grained sand, non-cohesive	SP SM		
							112	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt, some medium grained sand, cohesive, cemented			
7.8							113	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, trace clay, non-plastic, non-cohesive	SM		
3.7							114				
							115	Sandy Silt, very dark greenish gray (Gley 1 3/1), damp, fine grained sand, some clay, cohesive, non-plastic	ML		
11.3							116				
6.1							117	Silty Sand, very dark greenish gray (Gley 1 3/1), damp, fine grained sand, lowly cohesive	SM		
							118	Silt, very dark greenish gray (Gley 1 3/1), damp, silt with clay, cohesive, some fine grained sand, low plasticity	ML		
8.6							119	Silty Sand, very dark greenish gray (Gley 1 3/1), damp, fine grained sand, trace clay, non-cohesive, non-plastic	SM		
7.5							120	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, lowly cohesive, non-plastic, some clay	SM		
							121				
7.0							122	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand with clay, cohesive, low plasticity	ML		
8.0							123	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, trace clay, cohesive	SM		
							124				
9.8							125	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, some clay, non-plastic, cohesive	ML		
4.8							126	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, trace medium grained sand, lowly cohesive	SM		
							127				
3.6							128				
7.6							129				
							130	Silt and Clay, very dark greenish gray (Gley 1 3/1), damp, medium plastic, cohesive	ML		
6.6							130	Clayey Silt, very dark greenish gray (Gley 1 3/1), wet, silt, cohesive, medium plastic	ML		
5.4							131	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt, trace clay, non-plastic, cohesive	SM		
							132	Clayey Silt, very dark greenish gray (Gley 1 3/1), moist, silt, cohesive, medium plastic	ML		



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 3-8, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 22 feet TOTAL DEPTH: 209 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
	8.2						133	Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand with silt, Clayey Silt, very dark greenish gray (Gley 1 3/1), moist, silt, cohesive, medium plastic	SM ML		
	9.4						133	Silty Sand, very dark greenish gray (Gley 1 3/1), damp, fine grained sand, some clay, non-cohesive to lowly cohesive	SM		
	4.6						134				
	4.0						135				
	8.8						136	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, non-cohesive, non-plastic	SM		
	15.1						137				
	11.7						138	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, trace clay, non-plastic, lowly cohesive	SM		
	9.1						139	Silty Sand, very dark greenish gray (Gley 1 3/1), wet, fine grained sand, some clay, lowly to semi cohesive, non-plastic	SM		
	7.6						140	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some coarse grained sand	SP		
	2.8						141	Silty Clay, very dark greenish gray (Gley 1 3/1), wet, trace fine grained sand, cohesive, medium plastic	CL		
	7.3		ND<2.0				142				
	9.0			67.45	15.14	82.59	142				
	7.5						143	Silt, very dark greenish gray (Gley 1 3/1), wet, silt with fine grained sand, cohesive, low plasticity	ML		
	6.3						144	Sandy Silt, very dark greenish gray (Gley 1 3/1), wet, fine grained silt, some clay, cohesive, non-plastic	ML		
	12.6						145	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand, some coarse grained sand, trace fine grained sand, some silt, some fine grained sand	SP		
	10.7						146	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand with coarse grained sand, trace fine grained sand	SP		
	7.1						147				
	11.2						148	Sand, very dark greenish gray (Gley 1 3/1), wet, medium grained sand, some fine grained sand, some coarse grained sand	SP		
	4.6						149				
	2.7						150	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
	3.6						151	Sand, very dark gray (Gley 1 4/1), wet, coarse grained cemented sand, some silt, cohesive	SP		
	5.1						152	Sand, dark gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some gravel	SP		
	4.5						153				
	4.3						154	Sand, dark gray (Gley 1 4/1), wet, medium and coarse grained sand, some fine grained sand, non-cohesive	SP		
	4.5						155	Silt, very dark gray (Gley 1 3/), wet, silt with coarse grained sand, cohesive, non-plastic	ML		
	4.3						155	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some fine grained sand, some gravel	SP		
	7.6						156				
	8.9		7.0				157	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some clay, some gravel	SP		
							158	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand with grave	SP		



LOG OF EXPLORATORY BORING

PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 3-8, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 22 feet TOTAL DEPTH: 209 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
							159	sand with gravel			
6.3							160	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand, some medium grained sand, some gravel, some silt	SP		
10.2							161				
							162				
10.8							163	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, some silt, lowly cemented, slightly cohesive	SP		
10.6							164	Silty Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, non-cohesive	SM		
							165	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, some silt	SP		
17.3							166	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand, some fine grained sand, some silt	SP		
11.7							167				
							168	Silty Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, non-cohesive	SM		
16.5							169				
18.1							170	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, some silt, non-cohesive	SP		
							171				
16.1							172				
2.6							173	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with silt, some medium grained sand, trace coarse grained sand, trace gravel, non-cohesive	SP		
4.8							174				
7.1							175	Sand, dark greenish gray (Gley 1 4/1), wet, coarse and medium grained sand, some fine grained sand, trace gravel	SP		
							176				
10.2							177				
8.6							178	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand	SP		
							179				
6.1							180	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with fine grained sand, some coarse grained sand, trace silt	SP		
8.0							181				
							182	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some fine grained sand	SP		
5.1							183				
8.9							184	Sand, dark greenish gray (Gley 1 4/1), wet, fine grained sand with medium grained sand, some coarse grained sand, some silt	SM		
8.5											
7.2											



LOG OF EXPLORATORY BORING

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PROJECT NO.: 600121
 LOCATION: 76 Station 6519
 28903 Rancho California Road
 Temecula, California

DATE DRILLED: December 3-8, 2001
 LOGGED BY: Lonnell Griffith
 APPROVED BY: Gary McCue
 DRILLING CO.: Boart Longyear

BLOWS PER 6 INCHES	OVM (ppm)	MTBE soil (mg/kg)	MTBE groundwater (ug/L)	Silt Content %	Clay Content %	Silt and Clay Content %	DEPTH (feet)	DRILLING METHOD: Rotasonic SAMPLER TYPE: 6 - inch Core Barrel DEPTH TO WATER: 22 feet TOTAL DEPTH: 209 feet	USCS	GRAPHIC LOG	WELL CONSTRUCTION DETAIL
								DESCRIPTION			
11.1	6.8						185	Sand, dark greenish gray (Gley 1 4/1), wet, medium grained sand with coarse grained sand	SP		
			ND<2.0				186	Sand, dark greenish gray (Gley 1 4/1), wet, coarse grained sand with medium grained sand, some fine grained sand, trace silt	SP		
							187				
2.4	6.1						188	Sand, gray (Gley 1 5/), wet, medium grained sand with fine grained sand, some silt, trace coarse grained sand	SP		
							189	Sand, greenish gray (Gley 1 5/2), wet, coarse grained sand with medium grained sand, some gravel, trace fine grained sand	SP		
8.8	13.3						190	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel, trace fine grained sand	SP		
							191				
							192	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, some fine grained sand, trace silt	SP		
12.0	9.8						193				
							194	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel, trace silt	SP		
8.2	5.5						195				
							196				
							197				
6.5	6.2						198	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, trace silt	SP		
							199	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand with gravel, some fine grained sand, trace silt	SP		
							200	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some fine grained sand, some gravel, trace silt	SP		
6.3	4.6						201				
							202	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with coarse grained sand, some fine grained sand	SP		
2.5	3.4						203	Sand, greenish gray (Gley 1 5/1), wet, coarse grained sand with medium grained sand, some gravel, some fine grained sand	SP		
							204				
							205	Sand, greenish gray (Gley 1 5/1), wet, medium grained sand with fine grained sand, some coarse grained sand, trace gravel	SP		
4.4	4.6						206				
							207				
12.8							208				
			ND<2.0				209				



LOG OF EXPLORATORY BORING

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