LEE & RO. Inc.

BOREHOLE LOG

24-MW-6

Project Name:	Vandenberg AFB - Site 24	**Project Number:**	00101	**Sheet 1 of 2**	
Borehole Location:	North of Fuel Island Concrete Pad	**Borehole No.**	24-BH-9	**Total Depth (ft):**	69.5'
		Driller:	J. Pottroff	**Depth to Bedrock (ft):**	65'
Drilling Agency:	Water Development	**Date Started:**	2-18-97	**Depth to Water (ft):**	64'
Drilling Equipment:	CME 1050	**Date Finished:**	2-18-97	**Elevation:**	457.01ft MSL
Drilling Method:	Hollow Stem Auger	**No. of Samples:**	15	**Datum:**	NGVD1929
Drilling Fluid:	None 24-MW-6	**Borehole Diameter (in):**	8"	**Northing:**	2099721.436
Completion Information:	Monitoring well installed to 65 ft on 2/18/97 & 2/19/97	**Logged by:**	F. Bush	**Easting:**	5801387.379
		Checked by:	T. Tosk	**Date:**	2-27-97

Depth (feet)	Sample No.	Interval	Blow Count	Recovery	Time	LEL (%)	PID (ppm)	Graphic	USCS	Lithologic Description	Remarks
0	0'		8/6/5	17%	0930		18		SM	SILTY SAND: very dark grayish brown (10YR3/2); 65% fine-med rnded qtz sand; 30% med plasticity silt; 5% rnded qtz gravel; dry; no odor	Drilled through wire
	4'		5/6/9	70%	0940		4.7				
5											
							8.4			SILTY SAND: changes to yellowish brown (10YR5/6)	
	9'		9/28/19	100%	0955		267				
10										SILTY SAND: changes to gray (5Y5/1); grades without gravel; moist; slight hydrocarbon odor	
							13.5			SILTY SAND: changes to light olive brown (2.5Y5/4)	
	14'		12/13/6	100%	1005		21.2			SILTY SAND: changes with 10% medium plasticity clay; soft	
15							47.0				
	19'		11/19/1	100%	1015		5.0		CL	CLAY: pale olive (5Y6/3); high plasticity medium stiff; dry; no odor	
20											
	24'		4/5/6	100%	1030		34.5			CLAY: changes to mottled pale olive (5Y6/3) and yellowish brown (10YR/5/6)	
25											
	29'		9/6/7	100%	1040		3.8				
30									CL	SANDY CLAY: pale olive (5Y6/3); 85% med plasticity, med stiff; 15% rnded qtz sand; dry; no odor	

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BOREHOLE LOG
(Continuation Sheet)

Project Name: Vandenberg AFB - Site 24 **Project Number:** 00101 **Sheet 2 of 2**

Logged by: F. Bush

Borehole Location: N. of Fuel Island **Borehole Number:** 24-BH-9 **Date:** 2-27-97

Depth (feet)	Sample No.	Interval	Blow Count	Recovery	Time	LEL (%)	PID (ppm)	Graphics	USCS	Lithologic Description	Remarks
35	34'		10/12/1	100%	1100		10.9		SM	SILTY SAND: pale olive (5Y6/3); 70% fine-med rnded qtz sand; 20% low plasitcity silt; 10% med plasticity, med stiff clay; moist; no odor	
40	39'		13/25/2	100%	1120		2.7/2		CL	SILTY CLAY: dark yellowish brown (10YR4/6); 70% med plasticity, med stiff clay; 30% med plasticity, med stiff silt; dry; no odor	PID indicator low battery PID turning off PID readings from 40ft and below taken on 2/19/97
45	44'		6/7/11	100%	1140		8.4/2			SANDY CLAY: 50% med plasticity clay; 30% fine-med rnded qtz sand; 10% low plasticity silt; 10% subangular-rnded bedrock gravel (siltstone fragments); moist; no odor	
50	49'		15/18/2	50%	1150		6.1/1.5		SP	SAND: light olive brown (2.5Y5/3); 80% fine-med rnded qtz sand; 10% subrnded qtz siltstone gravel; 10% low plasticity silt; dry; no odor	
55	54'		12/15/1	85%	1200		4.7/1.5			SAND: changes to mottled light olive brown (2.5Y5/3) and strong brown (7.5YR5/8); grades with 20% med plasticity silt	
										SAND: changes to light gray (10YR7/1); 100% fine rnded qtz sand	
60	59'		12/20/2	100%	1210		6.4/1.5		SM	SILTY SAND: very dark brown (10YR2/2); 75% fine rnded qtz sand; 25% low plasticity silt; hard; dry; no odor	
										SILTY SAND: changes to wet	
65	64'		20/32/3	85%	1225		6.8/1.4		Tm	SILTSTONE: (Monterey Formation) very dark grayish brown (10YR5/2); weathered; 85% low plasticity hard silt; 10% fine rnded qtz sand; dry; no odor	Groundwater encountered Very hard drilling
	68'		20/32/3	100%	1235		3.2/1.4				