ABUTMENT 1

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ROTARY FIELD NOTES

MR-1271 (REV. 2/93)

DIVISION OF NEW TECHNOLOGY, MATERIALS AND RESEARCH

ENGINEERING GEOLOGY

BORING NUMBER: B-00-3

DATE: 10/17/00

DIST.	CO.	RTE.	P.M.
11	SD	56	KP 3.3/10.1

BRIDGE NAME: RANCHO SANTA FE FARMS O.C.

BRIDGE NUMBER: #57-1080

E.A. NUMBER: 11-172821

CREW: LARRY WILSON, LUIS SEPULVEDA, MIKE MULLINS

EQUIPMENT	C.H.C. NUMBER
CS 2000 AUTOHAMMER	6832

GEO: M. PAGENKOPP / E. NEUPERT

SHEET: 1 OF 8

FM 92 1528 M

ROTARY FIELD NOTES
MR-1271 (REV. 2/93)

BORING NUMBER
B-00-3 ABUT 1 LEFT EDGE

LOCATION
43.0 m RIGHT 82+67.59 m "A" LINE

TOP HOLE ELEVATION
91.20 m ELEV.

ROTARY FIELD NOTES
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(C#) = BLOW COUNTS CORRECTED FOR AUTO HAMMER

GWS DEPTH	DATE TOOL	S #	GWS BLOWS PER FOOT	DATE	REMARKS	LOG	(density, color, grain size, **SOIL** or **ROCK** type, degree of saturation, etc.)
					SET UP ON-SITE 1500 10/16/00		
					DRILL TO 5 FT DEEP STOP FOR DAY.		
0'-5'	3.75"	1			NO RECOVERY		Sandstone, mottled medium light gray to dark yellowish orange, FRESH TO MOD. WEATHERED, soft, very fine-grained sand, few scattered roots and rootlets. Predominately dark yellowish brown increasing in medium light gray with depth (POWAY + LA JOLLA GROUPS)
1.52 - 1.98m							
5'-6.5'	1.4"	2	10, 15, 22	37	S.S. Fn G. mottled,		
				(C56)	yell. Brn - Gray		
					yb due to FeO_2 staining.		
6.5'-10'	3.75"	3			Rec 3.5/3.5 = 100%		
			Sample Pulled		RQD = 0%		
			68 to 72		S		
3.05 - 3.51m							3.84m 122 mm
10'-11.5'	1.4"	4	13, 18, 25	43	Mixe gray ~50%		(at 12.6 ft) 0.4 ft thick slightly weathered, hard zone, cemented with $CaCO_3$
				(C65)			
							91mm
4.57m							(at 14.2 ft) 0.3 ft thick slightly weathered, hard zone cemented with $CaCO_3$.
11.5'-15'	3.75"	5			well cemented		4.33m
					zones @ 12.6'		
					14.2'		

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GWS	DATE	GWS	DATE

DEPTH	TOOL	S #	BLOWS PER FOOT		REMARKS
4.57 – 5.03 m					
15° – 16.5	1.4"	6	17, 25, 32	57	
				(c86)	SAA
16.5 – 20°	3.75"	7			Rec 3.2/3.5 = 91%
			Sample Pulled		RQD 1.1/3.5 =
			18.2 to 18.8		31%
6.10 – 6.55 m					
20° – 21.5	1.4"	8	15, 23, 27	50	SAA
				(c75)	
21.5 25°	3.75	9			Rec = 3.5/3.5 = 100%
					RQD = 0/3.5 = 0%
7.62 – 7.71 m					
25° – 25.3	1.4"	10	50/.3	E 167	
				(c251)	

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LOG	(density, color, grain size, **SOIL** or **ROCK** type, degree of saturation, etc.)
	5.64 m 5.97 m
	(from 18.5 to 19.6 feet) medium
	light gray, moderately to
	slightly weathered, hard,
	cemented with $CaCO_3$.
	6.46 m
	(at 21.2 feet)
	light olive gray, moderately
	weathered, moderately soft to
	moderately hard, medium - 91 mm
	grained sand, occassional 0.3 to
	152 mm 0.5 feet thick slightly weathered,
	hard zones.

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7.71-9.14m							8.02m
25³-30²	3.75"	11			Rec = 4.7/4.7 = 100%		(at 26.3 feet) moderately
			Sample Pulled		RQD = 0/4.7 = 0%		weathered, soft to moderately
			25³ to 25⁸				weathered, fine- to medium-
							grained sand.
30²-31⁴	1.4"	12	25, 42, 50/.4	E 104			
				c156			10.0m
9.57-10.67m							(at 32.8 feet) yellowish gray, with few
31⁴-35²	3.75"	13			Rec = 3.6/3.6 = 100%		91mm 152mm 0.3 to 0.5 feet thick beds of dark
			Sample Pulled		RQD = 0/3.6 = 0%		yellowish orange.
			32³ to 32⁸		Color Change at 32.8ft		11.77m
					to		(at 38.6 feet) pale yellowish
35²-35⁹	1.4"	14	29, 50/.4	E125			brown, SLIGHTLY weathered,
10.94-12.19m				c188			soft, medium-grained sand.
35⁹-40²	3.75"	15			Rec = 4.1/4.1 = 100%		
					RQD = 0/4.1 = 0%		
12.50m					med. sand. Color Orange at		
40²-41²	1.4"	16	33, 50/.4	E111			
				c167			

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DEPTH	TOOL	S #	BLOWS PER FOOT		REMARKS
12.50-13.72m					
41°-45°	3.75"	17			Rec = 3.8/4.0 = 95%
			Sample Pulled		RQD = 0/4.0 = 0%
			42.5 to 43°		SAA. No hard zones
					uniform color
45°-46.4	1.4"	18	28,43,50/.4	F105	SAA
				(c158)	
14.14-15.24m					
46.4-50°		19			Rec = 1.8/3.6 = 50%
			Sample Pulled		RQD 0/3.6 = 0%
			46.6-47.2		Sand, med-coarse.
50°-51.4		20	26,44,50/.4	F115	
15.67-16.76m				(c173)	
51.4-55°		21			Rec = 2.0/3.6 = 55%
					RQD = 0/3.6 = 0%
					Some sands
					washing out soft-v.s.

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LOG	DESCRIPTION (density, color, grain size, **SOIL** or **ROCK** type, degree of saturation, etc.)
	14.02m
	(at 46° ft) moderate yellowish
	brown, medium - to coarse -
	grained sand, predominately
	medium - grained sand.

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GWS	DATE	GWS	DATE

DEPTH	TOOL	S#	BLOWS PER FOOT		REMARKS
16.76-17.22m					
55°-56.5	1.4"	22	25,41,44	85	Change from SS to
				C128	Siltstone
56.5-60°	3.75"	23			Rec 3.5/3.5 = 100%
			Sample Pulled		RQD 0/3.5 = 0%
			58° to 58.6ft		Change @ 57.2 back
18.29-18.71m					to Sandstone & to Silts @ 59.8
60°-61.4	1.4"	24	20,42,50/4	E104	
				C156	
61.4-65°	3.75"	25			Rec 3.6/3.6 = 100%
					RQD .7/3.6 = 19%
19.81-19.99m					
65°-65.5	1.4"	26	32,50/1	E500	
				C750	

16.86m 55.3ft

17.43m 57.2ft

18.23m 59.8ft

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LOG	DESCRIPTION (density, color, grain size, **SOIL** or **ROCK** type, degree of saturation, etc.)
	Siltstone, moderate yellowish brown to olive gray, moderately weathered, moderately soft. (POWAY + LA JOLLA GROUPS)
	Sandstone, pale yellowish brown, moderately WEATHERED, soft, fine- to medium-grained sand, occassional thin beds, 0.3 (91mm) to 0.5 (152mm) feet thick, of dark yellowish orange due to iron oxide. (POWAY + LA JOLLA GROUPS).
	Clayey Siltstone, light olive gray grading to medium dark gray, moderately weathered, moderately hard to hard, with few scattered thin lenses less than 0.1 (30mm) feet thick of sandstone, dark yellowish orange. (POWAY + LA JOLLA GROUPS)

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DEPTH	TOOL	S #	BLOWS PER FOOT		REMARKS			
19.99 - 21.34m								
65.5 - 70.0	3.75"	27	-		Rec 4.4/4.4 = 100%	19.39m		
			Sample Pulled		RQD 0/4.4 = 0%	63.6ft		Sandstone, mottled dark yellowish
			68.0 to 68.7		Sandstone			orange to pale yellowish brown,
								moderately weathered, soft,
70.0 - 70.6	1.4"	28	43, 50/1	E500	SAA			fine- to medium-grained sand,
21.52m - 22.86m				(750)				predominately medium-grained
70.6 - 75.0	3.75	29			Rec 2.9/4.4 = 65%			sand (Poway + La Jolla Groups)
					RQD 0/4.4 = 0%			21.52 - 22.13m
					Sandstone w/ 1' thick			(from 71.6 to 72.6 feet) siltstone,
					siltstone bed.			moderate yellowish brown to olive
75.0 - 75.3	1.4"	30	50/.3	E166				gray, moderately weathered, moderately
22.95m - 24.38m				(249)				hard to moderately soft.
75.3 - 80.0	3.75"	31			Rec. 4.7/4.7 = 100%			22.92m 30mm
			Sample Pulled		RQD .4/4.7=			(at 75.2 feet) 0.1 feet thick
			76.0 to 76.5					conglomerate, intensly weathered,
24.81m								soft, Composed of subrounded fine to
80.0 - 81.4	1.4"	32	21, 42, 50/4	E104				coarse gravel, matrix washed
				(156)				out.

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DEPTH	**TOOL**	**S #**	**BLOWS PER FOOT**		**REMARKS**		
24.81-25.91m							22.95m 23.07m
81⅘-85°	3.75"	33			Rec 1.5/3.6 = 42%		(from 75⅗ to 75⅞ feet) slightly
					RQD 0/3.6 = 0%		weathered, hard, cemented
					soft, washed out		with $CaCO_3$
							26.03m
85°-86⅘	1.4"	34	37,43,50/45	E98			(at 85⅘ feet) dark yellowish
26.33-27.43m				(c147)			orange to medium light gray,
86⅘-90°	3.75"	35			Rec. 4.2/3.6 = 1		fine-grained sand to silt.
			Sample Pulled		RQD /3.6 =		
			87⅖ to 88⅔		Change to Siltstone @ 88.7'		26.21m
							(at 86° feet) fine- to medium-
90°-91⅖	1.4"	36	15,32,31	63			grained sand.
27.89-28.96m				(c95)			
91⅖-95°	3.75"	37			Rec = 2.9/3.5 = 83% 27.04m		
					RQD = /3.5 = 88.7ft		Siltstone, dark yellowish orange
							to dusky yellow, moderately
29.26m							weathered, moderately soft.
95°-96°	1.4"	38	28,50/45	E111			(Poway + La Jolla Groups)
				(c167)			

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GWS	DATE		GWS		DATE		LOG	(density, color, grain size, **SOIL** or **ROCK** type, degree of saturation, etc.)
DEPTH	**TOOL**	**S #**	**BLOWS PER FOOT**		**REMARKS**			
29.26 - 30.48m						27.74m		
96° to 100°	3.75	39			Rec 4.0/4.0 = 100%	91.0ft		Sandstone, dark yellowish orange to medium light gray, moderately weathered, moderately soft. Fine- to medium-grained sand becoming predominately fine-grained with depth. (Poway + La Jolla Groups)
					RQD 0/4.0 = 0%			
30.75m								
100° - 100°		40	34, 50/4	E 125 (c 188)				
								28.99m
					End hole @ 100 9/ft			(at 95 1/ feet) medium light gray, fine-grained sand
					2:45pm 10/17/00			
								29.26m
								(at 96° feet) medium gray with occassional dark gray laminae, slightly to moderately weathered, moderately soft. Fine- to medium-grained sand.
								BOH @ 100 9/ft (30.8meters)

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