34-0165 NB-B2

Caltrans EXPLORATION BORING FIELD LOG

Date 9/22/04 Boring No.

Location Dale Drive/Grand Ave. Lab No. EA No. 163701 Page 1 of 5

Dist. 04 Co. SF Rt. 101 P.M. Br. No. Purpose of Work foundation

Rt. Ft., Lt. Line. Sta. Northings. Eastings. Elev. 11.8ft

Ground Water Data: Date/Time | Water Level | Bot. of Boring

Logged By: D. Nesbitt Drill Crew: Kelly Black

Drill rig: CS2000 Hammer Type and Weight: 150#

Drilling Method: RW Casing: Non

Hole Completion: grouted

Depth	Sample Interval	Tool	Blows R/D	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
1								Dark Gray fine ~~Gray~~ ~~Sand~~ medium Sand	No Ac
2									
3									
4									
5								Dark Gray wet (SP)	
6			1 1	1	100			~~Gray~~ Sand ~~medium~~ grain, ~~loose~~ very loose fine	SPT
7			1						
8									
9									
10									
11			0 2	1	100			Dark Gray Silty Sand (SM), wet, fine Sand, very loose	SPT
12			0						
13			1						
14									
15									
16			0 3	1	120			Dark Gray, Sand, fine ~~medium~~ wet loose (SP)	SPT
17			1						
18			5						
19									
20									
21			3 4	1				Dark Gray, Sand, fine medium, wet Medium dense, (SP)	SPT
22			9						
23			13						
24									
25									
26			0 5	1	120			Dark Gray, Silty Sand (SM) ~~Amber~~ fine, wet loose, w shell fragments.	SPT
			1						
			12						

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34-0165 NB-B2

34-0165 NB-B2

34-0165 NB-132

Caltrans EXPLORATION BORING FIELD LOG

Date 9/22/08 | Boring No.

Location Doyle Drive, Grand UC. | Lab No. | EA No. 16370 | Page 2 of 5

Dist. 04 | Co. 101 | Rt. 5F | P.M. | Br. No. | Purpose of Work foundation

Rt. Ft., Lt. | Line, Sta. | Northings. | Eastings. | Elev.

Ground Water Data: Date / Time | Water Level | Bot. of Boring

Logged By : D. Nesbitt | Drill Crew : Kelly Black

Drill rig : CS2000 | Hammer Type and Weight : 150 lb

Drilling Method : Rotary Wash | Casing : None

Hole Completion : grouted

34-0165 NB-132

Depth	Sample Interval	Blows/Foot	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
27								
28								
29								
30								
31		2 6 11		6	100		fill Dark Gray, medium Sand (SP), wet, medium dense, ~~dark~~ Shell fragments.	SPT
32								
33							At 31 ft, change to yellowish Brown Sand, (Colma)	
34								
35								
36		11 17 26		7	100		fill Yellowish Brown, Medium Sand (SP) wet, dense	SPT
37								
38								
39								
40								
41		13 30 36		8	100		fill yellowish Brown ~~medium~~ Sand (SP), wet, ~~dense~~ med dense.	SPT
42								
43								
44								
45								
46		10 20 33		9	100		Same as above	SPT
47								
48								
49								
50								
51		12 31 52		10	100		Same as above	SPT
52								
53							Sand change color to Dark Gray between 52ft and 54 ft, then back to yellowish Brown.	
54								
55								
56								

stopped drilling at 14:30 9/22/08 51½ ft

Start drilling 9/23/08 10:00

34-0165NB-B2

Caltrans EXPLORATION BORING FIELD LOG

Date 9/23/08 | Boring No.

Location Doyle Drive, Grand UC. | Lab No. | EA No. 163701 | Page 3 of 5

Dist. 04 | Co. ~~LB~~ SF | Rt. 101 | P.M. | Br. No. | Purpose of Work foundation

Ft. | Rt. Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data	Date / Time	Water Level	Bot. of Boring

Logged By : D. Nesbitt | Drill Crew : Kelly Black

Drill rig : CS2000 | Hammer Type and Weight : 150 #

Drilling Method : Rotary Wash | Casing : None

Hole Completion :

Depth	Sample Interval Tool	Blows / RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
55								
56		11 / 18 / 25	11	100			Yellowish Brown ~~medium~~ fine sand (SP) wet, dense, w/ orange staining	SPT
57								
58								
59								
60								
61		9 / 19 / 31	12	100			Same as above	SPT
62							At 63ft, change to dark gray ~~sand~~ fine sand (SP)	
63								
64								
65								
66		10 / 15 / 17	13	100			Dark Gray fine sand, wet, dense	SPT
67								
68							At 67ft change to a Dark Gray silt (old Bay mud)	
69								
70								
71		7 / 7 / 10	14	100			Dark Gray silt, w/ w/ gravel very stiff, ~~w/ chert fragments~~ gravel - chert fragments	SPT
72								
73								
74								
75							Gray and brown	
76		10 / 20 / 24	15	100			~~Gray~~ sandy silt w/ gravel, Hard ~~Hard brown spt~~	SPT PP = 4.0 tsf
77								
78								
79								
80								
81		6 / 25 / 44	16	100			Brown Gravelly clay, Hard. Gravel ~~weather shale fragments~~ weathered sandstone and shale fragments	SPT Gravel angular

34-0165NB-B2

Caltrans EXPLORATION BORING FIELD LOG

Date 9/23/08 Boring No. 9/24/08

Location Doyle Drive, Girard UC. Lab No. EA No. 163701 Page 4 of 5

Dist. 04 Co. SF Rt. 101 P.M. Br. No. Purpose of Work foundation

Ft. Rt. Lt. Line. Sta. Northings. Eastings. Elev.

Ground Water Data	Date / Time	Water Level	Bot. of Boring

Logged By : D. Nesbitt Drill Crew : Kelly Black

Drill rig : CS2000 Hammer Type and Weight : 150 #

Drilling Method : Rotary Wash Casing : None

Hole Completion :

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Depth	Sample Interval Tool	Blows RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description			Remarks
82										
83										
84										
85										
85		12	17	100			Same as above			SPT PP = 4.0 tsf
86		14					shale gravel			
		30								~~85 90ft 2.06~~
87										
88										
89										
90										
		30	18	100			Same as above			SPT PP = 4.0 tsf
91		32					shale gravel.			
		27								Stopped drilling at 91.5 ft
92										at 15:00 9/23/08
										Stated drilling 9/24/08
										at ~~9:30~~ 10:05 am
93										
94										
95										
		50/3"	19	80%			Gray shale, highly fracture			SPT
96							95 ft			
							At ~~96.5~~ ft begin coring rock at			10:51 / 11:12
97										time = 21 min.
98					Dark		Gray, highly weather and			RQD = 0
							fractured shale, fractures			
99	Core						fill w/ (calcite (SP)) white material.			36"/50" 60%
100										
		18	20				Dark Gray fractured shale			SPT
101		80/5"					w/ gray clay			

34-0165NB-B2

Caltrans EXPLORATION BORING FIELD LOG

Date 9/24/08 Boring No.

Location Doyle Drive, Girard Rd. UC | Lab No. | EA No. 163701 | Page 4 of 5

Dist. 04 Co. SF Rt. 101 P.M. Br. No. Purpose of Work foundation 5 of 5

Ft., Rt. Lt. Line. Sta. Northings. Eastings. Elev.

Ground Water Data	Date / Time	Water Level	Bot. of Boring

Logged By : D. Nesbitt | Drill Crew : Kelly Black

Drill rig : CS2000 | Hammer Type and Weight : 150#

Drilling Method : Rotary Wash | Casing : non

Hole Completion : grouted

Depth	Sample Interval Tool	Blows / RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description			Remarks
102										Core 100'-105'
							Same as above			~~time~~
103										11:35 Am / 11:59 Am
							RQD=0			time = 24 min
104	CORE									
										24"/60" = 40% recovery
105				40%						
							105ft to 107½ft			~~RQD=0~~
106										
							Same as above			13:15 / 13:23
107				50%			RQD=0.			time = 8 min
108							107.5 to 110 ft			15"/30" = 50%
							Same as above			
109							RQD=0			13:28 / 13:38
							Recovery = 18"/30" =			time = 10 min
110										
							110ft to 115ft			
111										13:44 / 14:02
										time = 18 min
112										
113							Used Strata pack for coring			
114										
115							End of boring at 115 ft			
116							no artenison conditions observed.			
117										
118										
119										
120										

34-0165NB-B2

9/25/08 31-0165SB-B2

Caltrans EXPLORATION BORING FIELD LOG

Date | Boring No.

Location Doyle Drive, Girard UC. | Lab No. | EA No. 163701 | Page 1 of 4

Dist. 04 Co. SF Rt. 101 P.M. | Br. No. | Purpose of Work Foundation

Rt. Ft., Lt. | Line, Sta. | Northings. | Eastings. | Elev.

Ground Water Data: Date/Time | Water Level | Bot. of Boring

Logged By: D. Nesbitt | Drill Crew: Kelly Black

Drill rig: CS2000 | Hammer Type and Weight: 150 #

Drilling Method: Rotary wash | Casing: None

Hole Completion: Grouted

Depth	Sample Interval	Tool	Blows/ROD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
1									AC 2"
2									AB 4"
3								Dark Gray silty sand	
4									
5									
			0	1	100			Dark Gray silty sand (SW),	SPT
6			0					wet, very loose.	
			1						
7									
8									
9									
10			0					Same as above, w/ shell fragments	
			0	2	100				SPT
11			1						
12									
13									
14									
15								(SP)	
			5	3	100			Dark Gray sand, fine wet	SPT
16			9					medium dense.	
			7						
17									
18									
19									
20									
			6	4	80% 100			(SP) Same as above, w/ shell frags	
21			4						SPT
			6						
22									
23									
24									
25									
			5	5	100			Dark Gray sand (SP), fine	SPT
26			5					wet, medium dense.	
			6						
27									9/25/08 Stopped drilling at 25 ft at 1432.
28									
29									
30									

31-0165SB-B2

31-0165SB-B2

31-0165SB-B2

34-016578-B2

Caltrans | EXPLORATION BORING FIELD LOG | Date 9/23/08 | Boring No.

Location Doyle Dr. w/ Grand Ave | Lab No. | EA No. 163201 | Page 2 of 4

Dist. 04 Co. SF Rt. 101 P.M. | Br. No. | Purpose of Work foundation

Rt. Ft.. Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data: Date/Time | Water Level | Bot. of Boring

Logged By : D. Nesbit | Drill Crew : Kelly Black

Drill rig : CS2000 | Hammer Type and Weight : 150#

Drilling Method : Rotary Wash | Casing : none

Hole Completion : grouted

Depth	Sample Interval	Type	Blows/6"	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
30									Start drilling at 10:30 9/29/08 at 25 ft.
			3	6	100			Same as above	
31			5						
			6						
32									
33								At 34ft, color changes to Brown.	
34									
35									
			15	7	100			Yellow-Brown Sand (SP) fine grained, very dense, with orange staining.	SPT (colma)
36			25						
			30						
37									
38									
39									
40									SPT
			7	8	100			Same as above, dense sand.	
41			15						
			24						
42									
43									
44									
45								Yellow-Brown Sand (SP), fine, wet, med dense, w/ orange staining.	
			15	9	100				SPT
46			23						
			48						
47									
48									
49									
50									
			23	10	100			Same as above	SPT
51			47						
			50/3"						
52									
53									
54									
55									
			15	11				Yellow-Brown Sand (SP), fine wet, dense.	SPT
56			15						
			22						
57									

34-0165SB-B2

Caltrans EXPLORATION BORING FIELD LOG | Date 9/28/08 | Boring No.

Location Doyle Drive, Girard UC. | Lab No. | EA No. 163701 | Page 3 of 4

Dist. 04 Co. SF Rt. 101 P.M. Br. No. Purpose of Work foundation.

Ft., Rt. Lt. Line. Sta. Northings. Eastings. Elev.

Ground Water Data	Date / Time	Water Level	Bot. of Boring

Logged By: D Nesbitt | Drill Crew: Kelly Black's

Drill rig: CS2000 | Hammer Type and Weight: 150#

Drilling Method: Rotoywash | Casing: none

Hole Completion: grouted

Depth	Sample Interval Tool	Blows RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
58								
59								
60			12	100				SPT
		6					Yellow-Brown sand (SP), fine	
61		14					At ~~18~~ 61ft, Dark Gray sand (SP),	
		22					fine, wet, dense.	
62								
63								
64								
65								
		10	13	100			Dark Gray sand (SP), fine	
66		12					wet, ~~dense~~ medium dense,	
		12					w/ ~~clasts~~ fragments of mudstone.	
67								
68								
69							At 69ft, gravelly sand	
70							clayey gravel (GM)	
		15	14	100			Brown and Gray ~~gravelly clay~~,	At 14:30 Stopped
71		21					wet, very dense.	driling at 70ft.
		34						
72								
73								
74								
75								
		37	15				Weathered mudstone, Brown	
76		71/6"					and Gray,	DP >4.0 tsf
77								
78								
79								
80								
		280	16				Brown weathered mudstone	———
81		80/6"					and Gray weathered shale.	
							Reddish-Brown to Gray	Begin coring at ~~82~~ 82.5 ft
82							~~Brown~~ weathered mudstone	
83							some rock fabric visable.	time = 7min.
84							RQD	
85								
							~~50"/60"~~ 46"/60"	
86								

87.5ft

34-0165SB-B2

Caltrans EXPLORATION BORING FIELD LOG

Date 9/30/08 | Boring No.

Location Doyle Drive / Grand Ave. | Lab No. | EA No. 14370L | Page 4 of 4

Dist. 04 Co. SF Rt. 101 P.M. | Br. No. 34-0165 | Purpose of Work foundation

Rt. Ft., Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data: Date/Time | Water Level | Bot. of Boring

Logged By : D. Nesbit | Drill Crew : Kelly Black

Drill rig : CS2000 | Hammer Type and Weight : 150#

Drilling Method : R. wash | Casing : Non

Hole Completion : Grouted

Depth	Sample Interval	Tool	Blows	RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description			Remarks
88									Color change to grey weathered mudstone w/ orange staining, fractures filled w/ white material.			core run 87.5 to 92.5 ft time = 8 min
89												
90												
91												
92												
93									48"/60" RQD=0			
94												
95									Same as above			Core 92.5ft to 97.5ft
96												
97									40"/60" RQD=0			time = 8 min
98												
99												
100									End of boring 97.5ft 9/30/08			
									No Groundwater measured No Artesian condition observed.			

34-0165SB-B2

34-0165NB-A5

Caltrans EXPLORATION BORING FIELD LOG

Date 7/18/08 | Boring No.

Location Doyle Drive, Girard Rd UC | Lab No. | EA No. 163701 | Page 1 of 4

Dist 04 Co. SF Rt. 101 P.M. | Br. No. | Purpose of Work Foundation Investigation

Rt. Ft., Rt. Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data: Date/Time | Water Level | Bot. of Boring

Logged By: D Nesbitt | Drill Crew: B Kelly Blackburn

Drill rig: CS2000 | Hammer Type and Weight: #50 lb.

Drilling Method: Rotary Wash | Casing: non

Hole Completion: grouted

Start drilling at 9:51 Am

Depth	Sample Interval	Tool	Blows RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
0								Auger thru AC layer	AC: 3" AB: 6"
1								Fill: Sand	
2									
3									
4									
5								At 4.5' Bgs mud	
6			1 1 4	1	100			Gray ~~Sandy~~ clay, soft moist,	P.P. = 0.0 tsf
7									
8									
9								At 9.5, change to silty Sand.	
10			1 1 1	2	100			Gray silty Sand, soft ~~moist~~ wet	
11									
12									
13									
14									
15			6 8 11	3	100			Gray Sand, medium wet	
16									
17									
18									
19									
20									

34-0165NB-A5

Caltrans EXPLORATION BORING FIELD LOG

Date 1/18/08 | Boring No.

Location Doyle Drive/Travel Rd UC | Lab No. | EA No. 16320 | Page 2 of 4

Dist. 04 Co. SF Rt. 101 P.M. | Br. No. | Purpose of Work foundation

Rt. Ft., Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data: Date/Time | Water Level | Bot. of Boring

Logged By : D. Nesbit | Drill Crew : K. Black

Drill rig : CS 2000 | Hammer Type and Weight : 140lb

Drilling Method : Rotary Wash | Casing : none

Hole Completion : grouted

Depth	Sample Interval Tool	Blows ROD	Sample I.D.	% Rec.	Strength	Graphic Log	Description	Remarks
20		6	3	100			Sand as above	20-21.5'
21		7					medium dense	
		5						
22								
23								
24								
25							very	
		0	5"				Gray sand, loose, wet.	
26		D						
		1						
27								
28								
29								
30								
		8	6	3	100	2	Sand as above	
31		11		3		2	loose sand	
		8		6		6		
32								
33								
34								
35								
		14	7	100			Yellow Brown Sand,	
36		19					dense/very dense	
		24						
37								
38								
39								
40								

34-0165NB-A5

Caltrans	EXPLORATION BORING FIELD LOG	Date 7/18/00	Boring No.

Location Doyle Drive Grand Rd UC | Lab No. 163701 | EA No. | Page 3 of 4

Dist. 04 Co. SF Rt. 101 P.M. Br. No. Purpose of Work foundation

Ft. Rt. Lt. Line. Sta. Northings. Eastings. Elev.

Ground Water Data	Date / Time	Water Level	Bot. of Boring

Logged By : D. Nesbitt | Drill Crew : K. Black

Drill rig : CS2000 | Hammer Type and Weight : 150#

Drilling Method : Rotary Wash | Casing : non

Hole Completion : grouted

Depth	Sample Interval Tool	Blows RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description			Remarks
40		12		100			Same as above			
41		15								
		31								
42										
43										
44										
45										
		17		100			Same as above			
46		23								
		33								
47										
48										
49										
50							Same as above			
		21		100			~~Same Same as above~~			
51		34					~~Gray Sand~~, d			
		50								
52										
53										
54										
55										
		50/3"		100			Gray Sand, very dense			
56							At 56, becomes sandstone gray.			
57										
58										
59										
60										

34-0165NB-A5

Caltrans | EXPLORATION BORING FIELD LOG | Date 9/18/08 | Boring No.

Location Doyle Drive | Lab No. | EA No. 163701 | Page 4 of 4

Dist. | Co. | Rt. | P.M. | Br. No. | Purpose of Work Foundation

Ft. | Rt. Lt. | Line. Sta. | Northings. | Eastings. | Elev.

Ground Water Data	Date / Time	Water Level	Bot. of Boring

Logged By : D Nesbitt | Drill Crew : K. Black

Drill rig : CS2000 | Hammer Type and Weight : 150 lb

Drilling Method : R. Wash | Casing : None

Hole Completion : Grouted

Depth	Sample Interval Total	Blows RQD	Sample I.D.	% Rec.	Strength	Graphic Log	Description			Remarks
60		50/3"		~~100~~			Yellow brown Sandstone			Bedrock
61				50%			fractured			
62										~~IIII~~ II
63										
64										
65		50/2"		~~100~~			Same as above			
66				50%						
67							Stopped drilling at 66½ ft.			
68										
69										
70										
71										
72										
73										
74										
75										
76										
77										
78										
79										
80										