DRILL HOLE LOG

BORING NO. 08-OR4-B1

PROJECT: I-15 UTAH COUNTY CORRIDOR - OR4, I-15 OVER 400 NORTH
CLIENT: UTAH DEPARTMENT OF TRANSPORTATION
LOCATION: N:281,761 E:577,814
DRILLING METHOD: CME-75 / N.W. CASING TO 53'
DRILLER: M. WAYMENT
DEPTH TO WATER - INITIAL: ▽ 29.0' **AFTER 24 HOURS:** ▼ N.M.

PROJECT NUMBER: 200801.200
DATE STARTED: 9/10/08
DATE COMPLETED: 9/11/08
GROUND ELEVATION: 4631.4'
LOGGED BY: M.H., D.B., J.B.

Elev. (ft)	Depth (ft)	Lithology	Sample Type	Rec. (in)	See Legend	USCS (AASHTO)	Material Description		Dry Density (pcf)	Moisture Content (%)	Atter. Liquid Limit	Atter. Plast. Index	Gradation Gravel (%)	Gradation Sand (%)	Gradation Silt/Clay (%)	Other Tests
4630				14	7,36,26,(99+)	GP-GM	gray, slightly moist, very dense	GRAVEL W/SILT & SAND slag (fill)								
4625	5			13	4,4,6,(23)	SM (A-2-4(0))	brown, moist, med. dense	SILTY SAND (fill)		11.6		NP	0	80	20	
								GRAVELS (driller's observation)								
4620	10			18	7,9,13,(39)	SP-SM	brown, moist, dense	SAND W/SILT casing dropped to 12.8' (fill)								
4615	15			6	11,28,50/5", (REF)	GP-GM	brown, moist, very dense	GRAVEL W/SILT & SAND (fill)								
4610	20			13	11,21,22,(58)	SM (A-2-4(0))	brown, moist, very dense	SILTY SAND (fill)		8.9		NP	0	81	19	
4605	25			14	9,13,17,(34)	SM	brown, moist, dense	SILTY SAND								
4600	30			12	6,9,12,(22)	SM (A-2-4(0))	brown, moist, med. dense			10.1		NP	0	87	13	DS
4595	35			18	4,2,3,(5)	ML (A-4(0))	brown, wet, loose	SANDY SILT		25.3		NP	0	37	63	18% -0.005 mm
				12	Pushed 0.43	CL (A-7-6(19))	brown, moist, firm		85.4	33.2	41	18	0	3	97	UC
4590	40			18	0/12",1,(1) 0.30	CL	brown, moist, firm	LEAN CLAY silty layers to 0.25" thick								
4585	45			16	8,13,17,(29)	SP-SM (A-2-4(0))	gray-brown, wet, med. dense	SAND W/SILT		25.2		NP	0	89	11	

DH_LOGV1 08-OR4.GPJ US EVAL.GDT 2/23/09

RB&G ENGINEERING, INC.

LEGEND:

DISTURBED SAMPLE — 2,3,2,(6) — Blow Count per 6"; $(N_1)_{60}$ Value; 0.45 — Torvane (tsf)

UNDISTURBED SAMPLE — PUSHED 0.45 — Torvane (tsf)

OTHER TESTS
UC = Unconfined Compression
CT = Consolidation
DS = Direct Shear
UU = Unconsolidated, Undrained
CU = Consolidated, Undrained
HYD = Hydrometer

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LOGGED BY: M.H., D.B., J.B.

Elev. (ft)	Depth (ft)	Lithology	Sample Type	Sample Rec. (in)	Sample See Legend	Sample USCS (AASHTO)	Material Description	Dry Density (pcf)	Moisture Content (%)	Atter. Liquid Limit	Atter. Plast. Index	Gradation Gravel (%)	Gradation Sand (%)	Gradation Silt/Clay (%)	Other Tests
4580				15	14,22,23,(42)	SP-SM	lt. brown, wet, dense								
	55			15	11,18,21,(35)	SP-SM (A-3(0))	SAND W/SILT lt. brown, wet, dense		21.8		NP	0	91	9	
4575				3	24,50,53,(86)	SP-SM	lt. brown, wet, very dense								
	60														
4570				2	36,35,27,(53)	GP-GM	GRAVEL W/SILT & SAND possible cobbles brown, wet, dense								
	65														
4565															
	70			16	13,14,16,(25)	ML (A-4(0))	SILT W/SAND interbedded w/silty sand & silty clay layers 1" to 3" thick brown, wet, med. dense		22.4		NP	0	28	72	
4560															
	75			14	26,31,28,(48)	SM	brown, wet, dense								
4555															
	80			18	13,27,26,(42)	SM (A-4(0))	SILTY SAND silt & clay layers to 5" thick brown, wet, dense		22.4		NP	0	52	48	
4550															
	85			18	25,21,21,(33)	SM	brown, wet, dense								
4545															
	90														
4540															
	95														
4535															

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LEGEND:

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UNDISTURBED SAMPLE — PUSHED; 0.45 — Torvane (tsf)

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DRILL HOLE LOG

BORING NO. 08-OR4-B2

PROJECT: I-15 UTAH COUNTY CORRIDOR - OR4, I-15 OVER 400 NORTH
CLIENT: UTAH DEPARTMENT OF TRANSPORTATION
LOCATION: N:281,932 E:578,020
DRILLING METHOD: 08-CME-55 / N.W. CASING TO 28.5'
DRILLER: D. SAMPSON
DEPTH TO WATER - INITIAL: ▽ 17.5' **AFTER 24 HOURS:** ▼ 17.5'

PROJECT NUMBER: 200801.200
DATE STARTED: 11/5/08
DATE COMPLETED: 11/7/08
GROUND ELEVATION: 4616.6'
LOGGED BY: B.H., M.H., J.B.

Elev. (ft)	Depth (ft)	Lithology	Sample Type	Sample Rec. (in)	Sample See Legend	USCS (AASHTO)	Material Description		Dry Density (pcf)	Moisture Content (%)	Atter. Liquid Limit	Atter. Plast. Index	Gradation Gravel (%)	Gradation Sand (%)	Gradation Silt/Clay (%)	Other Tests
4615			■	14	3,5,6,(23)	SM (A-2-4(0))	dk. brown, moist, med. dense	Organics in top 4" SILTY SAND W/GRAVEL		9.8		NP	25	55	20	
4610	5		■	17	10,21,19,(91)	SM	dk. brown, moist, very dense	SILTY SAND								
4605	10		■	10	3,7,8,(28)	SM (A-2-4(0))	brown, moist, med. dense			11.5		NP	0	84	16	DS
4600	15		■	13	5,5,3,(12)	ML (A-4(0))	brown, very moist, med. dense	SANDY SILT		24.9		NP	0	38	62	13% -0.005 mm CT CU
			☒	16	Pushed 0.34	ML (A-4(11))	brown, moist, firm	SILT plastic	84.3	32.8	35	10	0	3	97	
4595	20		■	18	0,1,2,(4) 0.45	CL (A-6(14))	brown, moist, firm	LEAN CLAY sand lenses		34.3	35	15	0	8	92	
					0.30	CL	lt. brown, moist, firm									
4590	25		■	13	1,1,2	SM	lt. brown, wet, attempted shelby first (disturbed blow count)	SILTY SAND clay layers to 1" thick								
	30		☒	14	Pushed	SM (A-4(0))	lt. brown, wet			24.6		NP	0	64	36	
4585	35		■	15	4,5,6,(12) 0.41	CL	lt. brown, moist, firm	LEAN CLAY interbedded w/silty sand layers to 2" thick								
4580	40		☒	18	Pushed 0.55	CL (A-4(8))	lt. brown, moist, stiff		102.7	20.4	28	10	0	7	93	CT
4575	45		■	17	3,7,9,(11) 0.69	CL	lt. brown, moist, stiff	LEAN CLAY silt lenses								
4570			☒	18	Pushed 0.63	CL (A-6(11))	lt. brown, moist, stiff, some angled bedding		96.4	25.9	31	11	0	1	99	UC

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UNDISTURBED SAMPLE ☒ PUSHED
0.45 — Torvane (tsf)

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DRILLER: D. SAMPSON
DEPTH TO WATER - INITIAL: ▽ 17.5' **AFTER 24 HOURS:** ▼ 17.5'

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4565																
	55		■	15	8,16,19,(34)	SM	brown, wet, dense	SILTY SAND silt layers								
4560																
	60		■	17	9,10,10,(19)	ML (A-4(0))	brown, wet, med. dense	SANDY SILT		22.8		NP	0	39	61	
4555																
	65		⊠ / ■	10 / 17	Pushed / 3,12,28,(36)	CL / SM / SM	brown, moist / brown, wet / brown, wet, dense	LEAN CLAY sand layers / SILTY SAND								
4550																
	70		⊠	16	Pushed 0.57	CL (A-6(10))	lt. brown, moist, stiff	LEAN CLAY silt lenses, angled bedding	101.0	22.9	31	11	0	6	94	CT UU
4545																
	75		■	16	10,13,21,(29)	SM	lt. brown, wet, med. dense									
4540																
	80		■	14	11,20,22,(35)	SM (A-2-4(0))	lt. brown, wet, dense			22.8		NP	0	70	30	
4535																
	85		■	17	28,32,34,(53)	SM	gray-brown, wet, very dense	SILTY SAND few silt lenses								
4530																
	90		■	16	27,40,48,(70)	SM	brown, wet, very dense									
4525																
	95		■	17	25,41,41,(63)	SM	gray, wet, very dense									
4520																

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LEGEND:

DISTURBED SAMPLE ■ 2,3,2,(6) ← Blow Count per 6"; $(N_1)_{60}$ Value
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