DRILL HOLE LOG

BORING NO. 08-AF6-B1

PROJECT: I-15 UTAH COUNTY CORRIDOR - AF6, AM. FORK 1100 SOUTH OVER I-15
CLIENT: UTAH DEPARTMENT OF TRANSPORTATION
LOCATION: N:300,397 E:563,823
DRILLING METHOD: 96-CME-55 / N.W. CASING TO 45'
DRILLER: L. HILER
DEPTH TO WATER - INITIAL: ▽ 8.8' **AFTER 24 HOURS:** ▼ N.M.

PROJECT NUMBER: 200801.200
DATE STARTED: 8/14/08
DATE COMPLETED: 8/15/08
GROUND ELEVATION: 4529.1'
LOGGED BY: J.P., M.H., 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
			■	15	5,18,7,(52)	GP-GM	brown, moist, dense	GRAVEL W/SILT & SAND								
4525	5		■	0	1,1,1,(4)	-	no recovery									
4520 ▽			■	14	2,1,1,(4) *0.20*	CL (*A-6(7)*)	gray, moist, soft	SANDY LEAN CLAY		29.5	35	13	14	19	67	
	10		■	1	3,2,2,(7)	CL	brown, wet									
4515			■	18	1,2,1,(5) *0.25*	ML (*A-7-5(13)*)	gray, moist, soft	SILT plastic, organics		35.3	44	11	0	9	91	
	15		⊠	18	Pushed *0.10*	CL (*A-7-6(22)*)	gray, moist, very soft		91.0	33.7	46	20	0	3	97	CT UC CU
4510	20		■	18	0,2,2,(6) *0.30*	CL	gray, moist, firm	LEAN CLAY organics								
4505	25		■	15	0/18" *0.20*	CL (*A-7-6(16)*)	gray, moist, soft, attempted shelby first (disturbed blow count)			48.6	42	17	0	12	88	
4500	30		■	14	14,16,20,(43)	SP-SM (*A-1-a*)	brown, wet, dense	SAND W/SILT & GRAVEL		8.6		NP	32	61	7	
4495	35		■	18	20,29,23,(63)	SP-SM	brown, wet, very dense									
4490	40		⊠	11	Pushed *0.70*	CL (*A-7-6(23)*)	gray-brown, moist, stiff		96.3	27.3	41	22	0	2	98	CT UU
4485	45		■	18	5,7,6,(14) *1.55*	CL	gray-brown, moist, very stiff	LEAN CLAY								
4480																

DH_LOGV1 08-AF6.GPJ US EVAL.GDT 2/21/09

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

DRILL HOLE LOG

BORING NO. 08-AF6-B1

PROJECT: I-15 UTAH COUNTY CORRIDOR - AF6, AM. FORK 1100 SOUTH OVER I-15
CLIENT: UTAH DEPARTMENT OF TRANSPORTATION
LOCATION: N:300,397 E:563,823
DRILLING METHOD: 96-CME-55 / N.W. CASING TO 45'
DRILLER: L. HILER
DEPTH TO WATER - INITIAL: ▽ 8.8' **AFTER 24 HOURS:** ▼ N.M.

PROJECT NUMBER: 200801.200
DATE STARTED: 8/14/08
DATE COMPLETED: 8/15/08
GROUND ELEVATION: 4529.1'
LOGGED BY: J.P., M.H., 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
			☒	18	Pushed *0.75*	CL (*A-6(16)*)	gray-brown, moist, stiff — LEAN CLAY	102.3	26.1	37	15	0	1	99	UC
4475	55		■	18	*0.64* 3,6,6,(12)	CL SM CL	gray-brown, moist, stiff; gray, moist — SILTY SAND								
4470	60		☒	18	Pushed *0.36*	CL (*A-7-6(27)*)	gray, moist, firm — LEAN CLAY	84.7	33.6	45	24	0	0	100	CT UU
4465	65		■	18	0/18",(0) *0.41*	CH	lt. brown-gray, moist, firm								
4460	70		☒	18	Pushed *0.42*	CH (*A-7-6(35)*)	lt. brown-gray, moist, firm	81.6	38.1	54	31	0	0	100	UC
4455	75		■	18	0/18",(0) *0.43*	CH	lt. brown-gray, moist, firm — FAT CLAY stratified								
4450	80		☒	18	Pushed *0.67*	CH (*A-7-6(34)*)	lt. brown-gray, moist, stiff	85.9	37.5	53	30	0	0	100	CT UU
4445	85		■	18	0/18",(0) *0.76*	CL-ML	brown-gray, moist, stiff								
4440	90		☒	11	Pushed *0.57*	CL-ML (*A-4(5)*)	brown-gray, moist, stiff — SILTY CLAY silt & silty sand lenses	96.0	28.1	26	6	0	2	98	UC
4435	95		■	5	51/6"	GP-GM	gray, wet, very dense — GRAVEL W/SILT & SAND								
4430							Artesian at 95', rose 13' above ground surface in casing								

DH_LOGV1 08-AF6.GPJ US EVAL.GDT 2/21/09

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

DRILL HOLE LOG

BORING NO. 08-AF6-B2

PROJECT: I-15 UTAH COUNTY CORRIDOR - AF6, AM. FORK 1100 SOUTH OVER I-15

CLIENT: UTAH DEPARTMENT OF TRANSPORTATION

LOCATION: N:300,486 E:563,445

DRILLING METHOD: 08-CME-55 / N.W. CASING TO 55'

DRILLER: D. SAMPSON

DEPTH TO WATER - INITIAL: ▽ 10.3' **AFTER 24 HOURS:** ▼ 10.2'

PROJECT NUMBER: 200801.200

DATE STARTED: 8/12/08

DATE COMPLETED: 8/14/08

GROUND ELEVATION: 4533.4'

LOGGED BY: M. HANSEN, J. BOONE

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
				12	6,10,13,(49)	GP-GM	gray-brown, slightly moist, med. dense									
4530								SLAG (GRAVEL W/SILT & SAND) possible cobbles								
	5			14	14,53,(REF)	GP-GM (*A-1-a*)	gray, slightly moist, very dense			4.7		NP	51	38	11	
4525								LEAN CLAY								
	▽▼10					CL	brown, moist									
				6	Pushed	SM	brown, wet	SILTY SAND W/GRAVEL								
				15	2,1,2,(5) *0.50*	CL (*A-6(9)*)	brown to gray, moist, firm to stiff	SANDY LEAN CLAY		30.1	38	20	10	30	60	
4520						SC	brown, wet	CLAYEY SAND W/GRAVEL								
	15			15	2,2,1,(4) *0.34*	ML (*A-6(10)*)	lt. gray, moist, firm	SILT plastic, organics		32.7	36	11	0	14	86	
4515																
	20			18	Pushed	ML (*A-4(0)*)	gray-brown, wet	SILT organics, sand & clay lenses & layers	97.3	28.9		NP	0	13	87	CU 20% -0.005 mm
4510						CL-ML	gray-brown, very moist	SILTY CLAY								
	25			18	2,2,3,(7)	ML (*A-4(0)*)	gray-brown, wet	SANDY SILT clay layers to 1" thick		29.4		NP	0	48	52	10% -0.005 mm
4505																
	30			7	Pushed	CL-ML	gray, wet									
				11	0/18",(0)	CL-ML (*A-4(1)*)	gray, wet, soft	SANDY SILTY CLAY silt & silty sand layers to 3" thick		30.5	24	5	0	34	66	
4500																
	35				*0.20*	CL-ML	gray-brown, v. moist, soft									
				15	3,3,2,(6) *0.40*	SM CL	~~brown, wet~~ gray-brown, moist, firm	SILTY SAND								
4495																
	40			17	Pushed *0.20*	CL (*A-4(8)*)	gray-brown, moist, soft	LEAN CLAY silt lenses & layers to 2" thick	91.8	32.0	31	8	0	0	100	CT UU
4490																
	45			18	3,5,8,(14) *0.70*	CL-ML CL	dk. gray, very moist / lt. brown, moist, stiff	SILTY CLAY slight organic odor								
4485								LEAN CLAY								

DH_LOGV1 08-AF6.GPJ US EVAL.GDT 2/21/09

RB&G ENGINEERING, INC.

LEGEND:

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

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

DRILL HOLE LOG

BORING NO. 08-AF6-B2

PROJECT: I-15 UTAH COUNTY CORRIDOR - AF6, AM. FORK 1100 SOUTH OVER I-15
CLIENT: UTAH DEPARTMENT OF TRANSPORTATION
LOCATION: N:300,486 E:563,445
DRILLING METHOD: 08-CME-55 / N.W. CASING TO 55'
DRILLER: D. SAMPSON
DEPTH TO WATER - INITIAL: ▽ 10.3' **AFTER 24 HOURS:** ▼ 10.2'

PROJECT NUMBER: 200801.200
DATE STARTED: 8/12/08
DATE COMPLETED: 8/14/08
GROUND ELEVATION: 4533.4'
LOGGED BY: M. HANSEN, J. BOONE

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
			☒	13	Pushed 0.56	CL (A-7-6(30))	gray-brown, moist, stiff		90.9	31.7	48	27	0	0	100	CT UC
4480																
	55		■	12	0,4,4,(8) 0.78	CL	gray-brown, moist, stiff	LEAN CLAY								
4475																
	60		☒	17	Pushed 0.80	CL (A-7-6(26))	gray, moist, stiff		96.5	25.1	45	23	0	0	100	UU
4470																
	65		■	17	2,3,5,(8) 0.81	CH	gray-brown, moist, stiff									
4465																
	70		☒	18	Pushed 0.60	CH (A-7-6(34))	gray-brown, moist, stiff		84.3	39.7	53	30	0	0	100	CT UC
4460								FAT CLAY bedding at 45° angle								
	75		■	18	0/18",(0) 0.51	CH	gray-brown, moist, stiff									
4455																
	80		☒	18	Pushed 0.60	CH (A-7-6(41))	gray-brown, moist, stiff		81.6	39.1	61	35	0	0	100	UU
4450																
	85		■	18	1,3,4,(6) 0.65	CH	gray-brown, moist, stiff									
4445								FAT CLAY silt lenses to 6" apart								
	90		☒	18	Pushed 0.90	CH (A-7-6(32))	mottled gray & black, moist, stiff		81.3	38.4	52	28	0	0	100	CT UC
4440																
	95		■	15	2,5,8,(10) 0.65	CL	dk. gray, moist, stiff	LEAN CLAY								
4435																

DH_LOGV1 08-AF6.GPJ US EVAL.GDT 2/21/09

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

DRILL HOLE LOG

BORING NO. 08-AF6-B2

PROJECT: I-15 UTAH COUNTY CORRIDOR - AF6, AM. FORK 1100 SOUTH OVER I-15

CLIENT: UTAH DEPARTMENT OF TRANSPORTATION

LOCATION: N:300,486 E:563,445

DRILLING METHOD: 08-CME-55 / N.W. CASING TO 55'

DRILLER: D. SAMPSON

DEPTH TO WATER - INITIAL: ▽ 10.3' **AFTER 24 HOURS:** ▼ 10.2'

PROJECT NUMBER: 200801.200

DATE STARTED: 8/12/08

DATE COMPLETED: 8/14/08

GROUND ELEVATION: 4533.4'

LOGGED BY: M. HANSEN, J. BOONE

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
				18	7,6,18,(19) *0.53*	SM	gray to dk. gray, wet/moist, med. dense/stiff	SILTY SAND silt & clay layers to 3" thick								
4430	105			13	40,39,36,(52)	GM (*A-1-a*)	gray-brown, wet, dense	SILTY GRAVEL W/SAND possible cobbles		6.6		NP	46	39	15	
4425	110			13	5,6,9,(11) *0.29*	ML (*A-4(7)*)	gray-brown, moist, firm	SILT plastic		26.0	30	7	0	3	97	
4420	115			15	7,11,14,(18) *0.39*	ML,SM,CL,SC	gray-brown, wet/moist, med. dense/firm	INTERBEDDED SANDY SILT, SILTY SAND, LEAN CLAY & CLAYEY SAND LAYERS								
4415	120			4	70/4"	GM	gray, wet, dense									
4410	125							SILTY GRAVEL W/SAND possible cobbles								
4405	130			13	34,39,31,(45)	GM (*A-1-a*)	gray & brown, wet, med. dense			7.3		NP	51	35	14	
4400	135															
4395	140															
4390	145															
4385																

DH_LOGV1 08-AF6.GPJ US EVAL.GDT 2/21/09

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