

Appendix C

Borehole Logs
(on CD included with this document)

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Page 1 of 3

Location Planning ID: 7c-1

Date Drilled: 02/04/10

Borehole Location ID: 15-610816

Attitude: Vertical

TA- 15 AOC/SWMU: 15-007(c)

Drill Operator: Stanley Johnson

Drilling Company: Stewart Brothers Drilling Company

Depth to Soil/Tuff Interface (ft): 2

Drilling Equipment: CME-750 Hollow Stem Auger

Geologist: Jon Marin

Sampling Equipment: Wireline Core

Total Depth (ft): 182.5

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes	
0	↑ Hollow Stem Auger ↓						(0.0, 2.0) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 15-610816 is located approximately 500 ft east of firing site R-45 in TA-15.	
5		0	33	1748	RE15-10-8174 (3.5'-5')		(2.0, 122.0) Qbt3: Light pinkish gray, moderately indurated, nonwelded, devitrified, dry ash flow tuff.	HE spot test on surface soil = negative	
10									
15									
20		0	33	2120	RE15-10-8175/8225 (17.5'-20')		Intercalated intervals of nonindurated to weakly indurated ash flow tuff.		
25									
30									
35	0	16	1935	RE15-10-8176 (34'-35')					
40									
45									
50	0	16	1783	RE15-10-8177 (49'-50')					
55									
60									
65	0	5	1755	RE15-10-8178 (65'-66')					
70									

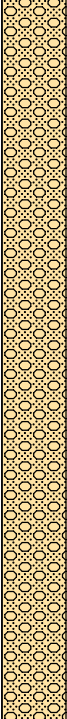
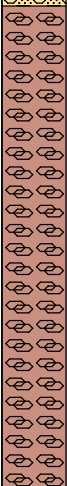
bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610816

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
75	Hollow Stem Auger						Qbt3 continued. Light gray, nonindurated, nonwelded, devitrified, dry ash flow tuff.	
80		0	20	643	RE15-10-8179 (79'-80')			
85								
90								
95		0	23.1	1410	RE15-10-8180 (94'-95')			
100								
105								
110		0	10	2700	RE15-10-8181 (109'-110')			
115								
120								
125	0	10	1053	RE15-10-8182 (124'-125')			(122.0, 168.0) Qbt2: Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
130								
135								
140	0	3	1680	RE15-10-8183 (139'-140')				
145								
150								
155	0	24	1397	RE15-10-8184 (154'-155')				

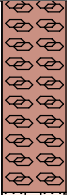
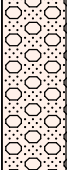

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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610816

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
155	↑ Hollow Stem Auger ↓						Qbt2 continued. Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
160								
165								
170		0	20	1397	RE15-10-8185 (169'-170')		(168.0, 182.5) Qbt1v: Light gray, nonindurated to slightly indurated, nonwelded, devitrified, dry ash flow tuff.	
175								
180		0	24	1397	RE15-10-8210 (181.5'-182.5')			TD = 182.5 ft.

bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan	Page 1 of 3
Location Planning ID: 7c-4	Date Drilled: 02/09/10
Borehole Location ID: 15-610817	Attitude: Vertical
TA- 15 AOC/SWMU: 15-007(c)	Drill Operator: Stanley Johnson
Drilling Company: Stewart Brothers Drilling Company	Depth to Soil/Tuff Interface (ft): 4
Drilling Equipment: CME-750 Hollow Stem Auger	Geologist: Jon Marin
Sampling Equipment: Wireline Core	Total Depth (ft): 182.5

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes	
0	↑ Hollow Stem Auger ↓						(0.0, 4.0) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 15-610817 is located approximately 500 ft east of firing site R-45 in TA-15.	
5			14	2040	RE15-10-8186 (4'-5')		(4.0, 124.0) Qbt3: Light pinkish gray, moderately indurated, nonwelded, devitrified, dry ash flow tuff.		
10								Intercalated intervals of nonindurated to weakly indurated ash flow tuff.	HE spot test on surface soil = negative.
15			9	2121	RE15-10-8187/8226 (18'-20')				
20			NA						
25									
30									
35		NA	33	224	RE15-10-8188 (34'-35')				
40									
45									
50		NA	48	2980	RE15-10-8189 (49'-50')				
55									
60									
65		NA	72	427	RE15-10-8190 (64'-65')				
70									

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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610817

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
75	↑ Hollow Stem Auger ↓							
80		NA	24	2230	RE15-10-8191 (79'-80')		Qbt3 continued. Light gray, nonindurated, nonwelded, devitrified, dry ash flow tuff.	
85								
90								
95		NA	24	2210	RE15-10-9192 (94'-95')			
100								
105								
110		NA	19	2280	RE15-10-8193 (109'-110')			
115								
120								
125		NA	38	2660	RE15-10-8194 (124'-126')		(124.0, 171.0) Qbt2: Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
130								
135								
140		NA	19	2350	RE15-10-8195 (139'-140')			
145								
150								
155								

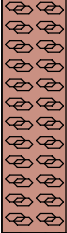
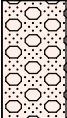

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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610817

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
155	↑ Hollow Stem Auger ↓	NA	24	2410	RE15-10-8196 (156'-157.5')		Qbt2 continued. Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
160								
165								
170		NA	38	322	RE15-10-8197 (171.5'-172.5')		(171.0, 182.5) Qbt1v: Light gray, nonindurated to slightly indurated, nonwelded, devitrified, dry ash flow tuff.	
175								
180		NA	28	223	RE15-10-8211			TD = 182.5 ft.

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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

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Location Planning ID: 7c-27

Date Drilled: 02/11/10

Borehole Location ID: 15-610818

Attitude: Vertical

TA- 15 AOC/SWMU: 15-007(c)

Drill Operator: Stanley Johnson

Drilling Company: Stewart Brothers Drilling Company

Depth to Soil/Tuff Interface (ft): 3.5

Drilling Equipment: CME-750 Hollow Stem Auger

Geologist: Jon Marin

Sampling Equipment: Wireline Core

Total Depth (ft): 182.5

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
0	Hollow Stem Auger						(0.0, 3.5) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 15-610818 is located approximately 500 ft east of firing site R-45 in TA-15.
5		NA	14	330	RE15-10-8198 (4'-5')		(3.5, 123.5) Qbt3: Light pinkish gray, moderately indurated, nonwelded, devitrified, dry ash flow tuff.	
10								
15								
20			NA	28	212	RE15-10-8199 (19'-20')		Intercalated intervals of nonindurated to weakly indurated ash flow tuff.
25								
30								
35		NA	9	240	RE15-10-8200 (34'-35')			
40								
45								
50		NA	24	215	RE15-10-8201 (49'-50')			
55								
60								
65		NA	19	420	RE15-10-8202/8227 (63.5'-65')			
70								

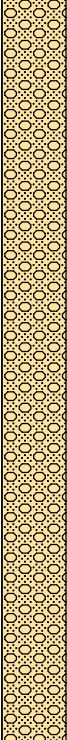
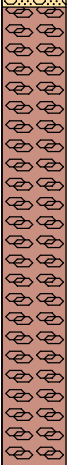
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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610818

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
75	↑ Hollow Stem Auger ↓							
80		NA	22	282	RE15-10-8203 (79'-80')		Qtz3 continued. Light gray, nonindurated, nonwelded, devitrified, dry ash flow tuff.	
85								
90								
95		NA	6.5	257	RE15-10-8204 (94'-95')			
100								
105								
110		NA	45	258	RE15-10-8205 (109'-110')			
115								
120								
125		NA	68	280	RE15-10-8206 (124'-130')		(123.5, 165.0) Qtz2: Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
130								
135								
140	NA	59	640	RE15-10-8207 (139'-140')				
145								
150								
155		NA	32	275	RE15-10-8208			

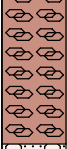
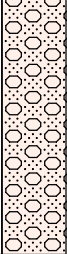
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Borehole Log**

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Borehole Location ID: 15-610818

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
155	↑ Hollow Stem Auger ↓				(154'-155')		Qbt2 continued. Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
160								
165								
170		NA	5.9	275	RE15-10-8209 (169'-170')		(165.0, 182.5) Qbt1v: Light gray, nonindurated to slightly indurated, nonwelded, devitrified, dry ash flow tuff.	
175								
180		NA	71	264	RE15-10-8212 (180'-182.5')			TD = 182.5 ft.

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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan	Page 1 of 3
Location Planning ID: 7d-1	Date Drilled: 02/13/10
Borehole Location ID: 15-610819	Attitude: Vertical
TA- 15 AOC/SWMU: 15-007[d]	Drill Operator: Stanley Johnson
Drilling Company: Stewart Brothers Drilling Company	Depth to Soil/Tuff Interface (ft): 4
Drilling Equipment: CME-750 Hollow Stem Auger	Geologist: Jon Marin
Sampling Equipment: Wireline Core	Total Depth (ft): 182.5

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
0	↑ Hollow Stem Auger ↓						(0.0, 4.0) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 15-610819 is located approximately 500 ft east of firing site R-45 in TA-15.
5		NA	23	2280	RE15-10-8240 (3'-5')		(4.0, 118.0) Qbt3: Light pinkish gray, moderately indurated, nonwelded, devitrified, dry ash flow tuff.	
10								
15								
20		NA	47	2600	RE15-10-8241 (19'-20')		Intercalated intervals of nonindurated to weakly indurated ash flow tuff.	HE spot test on surface soil = negative.
25								
30								
35	NA	17	2400	RE15-10-8242/8267 (33'-35')				
40								
45								
50	NA	53	2510	RE15-10-8243 (49'-50')				
55								
60								
65	NA	89	2370	RE15-10-8244 (64'-65')				
70								

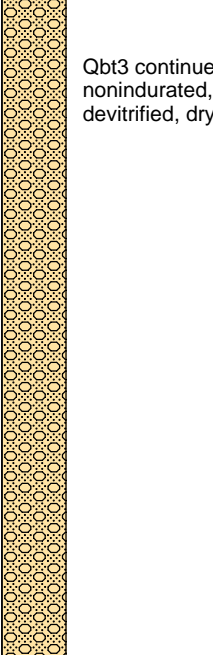
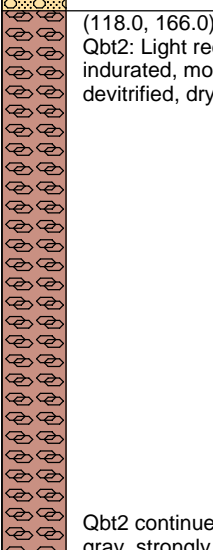
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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610819

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
75	↑ Hollow Stem Auger ↓							
80		NA	47	2450	RE15-10-8245 (79'-80')		Qbt3 continued. Light gray, nonindurated, nonwelded, devitrified, dry ash flow tuff.	
85								
90								
95		NA	41	2230	RE15-10-8246 (104'-105')			
100								
105								
110	NA	36	2112	RE15-10-8247 (109'-110')				
115								
120							(118.0, 166.0) Qbt2: Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
125	NA	46	2110	RE15-10-8248 (123.5'-125')				
130								
135								
140	NA	10	1989	RE15-10-8249 (138.5'-140')				
145								
150								
155		NA	36	1963	RE15-10-8250		Qbt2 continued. Light reddish gray, strongly indurated,	







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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610819

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
155	Hollow Stem Auger				(154'-155')		moderately welded, devitrified, dry, ash flow tuff.	
160								
165								
170		NA	36	2140	RE15-10-8251 (169'-170')		(166.0, 182.5) Qbt1v: Light gray, nonindurated to slightly indurated, nonwelded, devitrified, dry ash flow tuff.	
175								
180		NA	5	1956	RE15-10-8264 (181.5'-182.5')			TD = 182.5 ft.

bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan	Page 1 of 3
Location Planning ID: 7d-1	Date Drilled: 02/15/10
Borehole Location ID: 15-610820	Attitude: Vertical
TA- 15 AOC/SWMU: 15-007[d]	Drill Operator: Stanley Johnson
Drilling Company: Stewart Brothers Drilling Company	Depth to Soil/Tuff Interface (ft): 4
Drilling Equipment: CME-750 Hollow Stem Auger	Geologist: Jon Marin
Sampling Equipment: Wireline Core	Total Depth (ft): 180.0

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes	
0	Hollow Stem Auger						(0.0, 4.0) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 15-610820 is located approximately 500 ft east of firing site R-45 in TA-15.	
5		NA	25	2070	RE15-10-8252 (4'-5')				
10								(4.0, 119.0) Qbt3: Light pinkish gray, moderately indurated, nonwelded, devitrified, dry ash flow tuff.	HE spot test on surface soil = negative.
20		NA	20	2040	RE15-10-8253/8268 (18'-20')		Intercalated intervals of nonindurated to weakly indurated ash flow tuff.		
35		NA	25	1845	RE15-10-8254 (34'-35')				
50	NA	25	2100	RE15-10-8255 (48.5'-50')					
65	NA	15	1898	RE15-10-8256 (63.5'-65')					
70									

bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610820

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
75	Hollow Stem Auger							
80		NA	30	2900	RE15-10-8257 (79'-80')		Qbt3 continued. Light gray, nonindurated, nonwelded, devitrified, dry ash flow tuff.	
85								
90								
95		NA	30	2150	RE15-10-8258 (93.5'-95')			
100								
105								
110	NA	15	2900	RE15-10-8259 (108.5'-110')				
115								
120							(119.0, 174.0) Qbt2: Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
125	NA	15	1898	RE15-10-8260 (124'-125')				
130								
135								
140	NA	41	1891	RE15-10-8261 (138.5'-140')				
145								
150								
155	NA	51	2100	RE15-10-8262 (153.5'-155')				

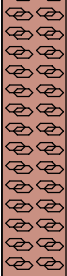





bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610820


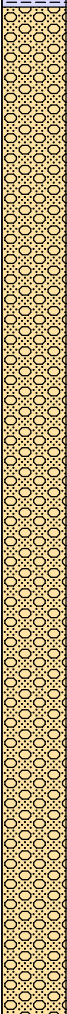
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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
155	Hollow Stem Auger						Qbt2 continued. Light reddish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
160								
165								
170		NA	51	2120	RE15-10-8263 (168.5'-170')			
175							(174.0, 180.0) Qbt1v: Light gray, nonindurated to slightly indurated, nonwelded, devitrified, dry ash flow tuff.	
180		NA	30	2040	RE15-10-8265 (179'-180')			TD = 180.0 ft.

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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan	Page 1 of 2
Location Planning ID: 9b-5	Date Drilled: 02/17/10
Borehole Location ID: 15-610837	Attitude: Vertical
TA- 15 AOC/SWMU: 15-009[b]	Drill Operator: Stanley Johnson
Drilling Company: Stewart Brothers Drilling Company	Depth to Soil/Tuff Interface (ft): 2
Drilling Equipment: CME-750 Hollow Stem Auger	Geologist: Jon Marin
Sampling Equipment: Wireline Core	Total Depth (ft): 80.0

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
0	↑ Hollow Stem Auger ↓						(0.0, 2.0) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 15-610837 is located approximately 100 ft south of firing site R-45 in TA-15.
2.0							(2.0, 80.0) Qbt3: Light pinkish gray, moderately indurated, nonwelded, devitrified, dry ash flow tuff. Intercalated intervals of nonindurated to weakly indurated ash flow tuff.	HE spot test on surface soil = negative
5								
10								
15								
20								
25								
30								
35								
40								
45								

bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 15-610837

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
45	↑ Hollow Stem Auger ↓	NA	10	2010	RE15-10-8316 (47.5'-50')	[Patterned]	Qbt3 continued; Light gray, nonindurated, nonwelded, devitrified, dry ash flow tuff.	
50								
55								
60		NA	25	2080	RE15-10-8317 (58.5'-60')			
65								
70		NA	20	1917	RE15-10-8318 (68.5'-70')			
75								
80		NA	36	1983	RE15-10-8319 (78.5'-80')			TD = 80.0 ft.

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**Los Alamos Technical Associates, Inc.
Borehole Log**


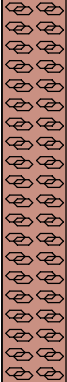
Project: Threemile Canyon Aggregate Area Investigation Work Plan	Page 1 of 1
Location Planning ID: 2-1	Date Drilled: 02/22/10
Borehole Location ID: 36-610876	Attitude: Vertical
TA- 36 AOC/SWMU: 36-002	Drill Operator: Stanley Johnson
Drilling Company: Stewart Brothers Drilling Company	Depth to Soil/Tuff Interface (ft): 1.5
Drilling Equipment: CME-750 Hollow Stem Auger	Geologist: Jon Marin
Sampling Equipment: Wireline core	Total Depth (ft): 17.5

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
0	↑ Hollow Stem Auger ↓						(0.0, 1.5) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 36-610876 is located at TA-36 approximately 300 ft west from building 36-001.
5		NA	36	3330	RE36-10-8448/8456 (7.5'-10')		(1.5, 17.5) Qbt2: Light pinkish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
15		NA	41	2220	RE36-10-8449 (15'-16')			

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**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan	Page 1 of 1
Location Planning ID: 2-2	Date Drilled: 02/22/10
Borehole Location ID: 36-610877	Attitude: Vertical
TA- 36 AOC/SWMU: 36-002	Drill Operator: Stanley Johnson
Drilling Company: Stewart Brothers Drilling Company	Depth to Soil/Tuff Interface (ft): 2.0
Drilling Equipment: CME-750 Hollow Stem Auger	Geologist: Jon Marin
Sampling Equipment: Wireline core	Total Depth (ft): 15.0

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
0	↑ Hollow Stem Auger ↓						(0.0, 2.0) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 36-610877 is located at TA-36 approximately 300 ft west from building 36-001.
5							(2.0, 15.0) Qbt2: Light pinkish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
10		NA	41	2150	RE36-10-8450 (9'-10')			
15		NA	36	1976	RE36-10-8451 (14'-15')			TD = 15.0 ft bgs.

bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan	Page 1 of 1
Location Planning ID: 2-3	Date Drilled: 02/22/10
Borehole Location ID: 36-610878	Attitude: Vertical
TA- 36 AOC/SWMU: 36-002	Drill Operator: Stanley Johnson
Drilling Company: Stewart Brothers Drilling Company	Depth to Soil/Tuff Interface (ft): 2.5
Drilling Equipment: CME-750 Hollow Stem Auger	Geologist: Jon Marin
Sampling Equipment: Wireline core	Total Depth (ft): 10.0

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
0	Hollow Stem Auger ↑							Borehole 36-610878 is located at TA-36 approximately 300 ft west from building 36-001.
5		NA	56	2040	RE36-10-8452 (4'-5')			
10		NA	46	2150	RE36-10-8453 (9'-10')			TD = 10.0 ft bgs.

bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan	Page 1 of 2
Location Planning ID: 3a-6	Date Drilled: 02/17/10
Borehole Location ID: 36-610879	Attitude: Vertical
TA- 36 AOC/SWMU: 36-003[a]	Drill Operator: Stanley Johnson
Drilling Company: Stewart Brothers Drilling Company	Depth to Soil/Tuff Interface (ft): 2
Drilling Equipment: CME-750 Hollow Stem Auger	Geologist: Jon Marin
Sampling Equipment: Wireline core	Total Depth (ft): 80.0

Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
0	↑ Hollow Stem Auger ↓						(0.0, 2.0) Soil: Medium brown, sandy silty topsoil, moist.	Borehole 36-610822 is located at TA-36 approximately 200 ft east from building 36-001.
5							(2.0, 80.0) Qbt2: Light pinkish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
10								
15								
20								
25								
30								
35								
40								
45								

bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.

**Los Alamos Technical Associates, Inc.
Borehole Log**

Project: Threemile Canyon Aggregate Area Investigation Work Plan

Borehole Location ID: 36-610879

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Depth (ft)	Drilling Method	PID (ppm)	Alpha (dpm)	Beta/Gamma (dpm)	Core Sample (bgs)	Graphic Log	Lithology	Notes
45	↑ Hollow Stem Auger ↓	NA	28	3000	RE36-10-8462 (49'-50')		Qbt2 continued. Light pinkish gray, strongly indurated, moderately welded, devitrified, dry, ash flow tuff.	
50								
55								
60		NA	19	758	RE36-10-8463 (59'-60')			
65								
70		NA	97	549	RE36-10-8486 (69'-70')			
75								
80		NA	30	681	RE36-10-8487/8489 (77.5'-80')			TD = 80.0 ft bgs.

bgs = below ground surface; CME = Central Mine Equipment; HE = high explosive; ID = identification; NA = not applicable or not encountered; Radiological Screening performed on core samples collected; TA = Technical Area; TD = Total Depth.