APPENDIX B

Soil Boring Logs

Soil Classification System

MAJOR DIVISIONS			GRAPHIC SYMBOL	USCS LETTER SYMBOL[1]	TYPICAL DESCRIPTIONS [2][3]
COARSE-GRAINED SOIL (More than 50% of material is larger than No. 200 sieve size)	GRAVEL AND GRAVELLY SOIL (More than 50% of coarse fraction retained on No. 4 sieve)	CLEAN GRAVEL (Little or no fines)		GW	Well-graded gravel; gravel/sand mixture(s); little or no fines
				GP	Poorly graded gravel; gravel/sand mixture(s); little or no fines
		GRAVEL WITH FINES (Appreciable amount of fines)		GM	Silty gravel; gravel/sand/silt mixture(s)
				GC	Clayey gravel; gravel/sand/clay mixture(s)
	SAND AND SANDY SOIL (More than 50% of coarse fraction passed through No. 4 sieve)	CLEAN SAND (Little or no fines)		SW	Well-graded sand; gravelly sand; little or no fines
				SP	Poorly graded sand; gravelly sand; little or no fines
		SAND WITH FINES (Appreciable amount of fines)		SM	Silty sand; sand/silt mixture(s)
				SC	Clayey sand; sand/clay mixture(s)
FINE-GRAINED SOIL (More than 50% of material is smaller than No. 200 sieve size)	SILT AND CLAY (Liquid limit less than 50)			ML	Inorganic silt and very fine sand; rock flour; silty or clayey fine sand or clayey silt with slight plasticity
				CL	Inorganic clay of low to medium plasticity; gravelly clay; sandy clay; silty clay; lean clay
				OL	Organic silt; organic, silty clay of low plasticity
	SILT AND CLAY (Liquid limit greater than 50)			MH	Inorganic silt; micaceous or diatomaceous fine sand
				CH	Inorganic clay of high plasticity; fat clay
				OH	Organic clay of medium to high plasticity; organic silt
	HIGHLY ORGANIC SOIL			PT	Peat; humus; swamp soil with high organic content

OTHER MATERIALS	GRAPHIC SYMBOL	LETTER SYMBOL	TYPICAL DESCRIPTIONS
PAVEMENT		AC or PC	Asphalt concrete pavement or Portland cement pavement
ROCK		RK	Rock (See Rock Classification)
WOOD		WD	Wood, lumber, wood chips
DEBRIS		DB	Construction debris, garbage

Notes:
1. USCS letter symbols correspond to symbols used by the Unified Soil Classification System and ASTM classification methods. Dual letter symbols (e.g., SP-SM for sand or gravel) indicate soil with an estimated 5-15% fines. Multiple letter symbols (e.g., ML/CL) indicate borderline or multiple soil classifications.
2. Soil descriptions are based on the general approach presented in the Standard Practice for Description and Identification of Soils (Visual-Manual Procedure), outlined in ASTM D 2488. Where laboratory index testing has been conducted, soil classifications are based on the Standard Test Method for Classification of Soils for Engineering Purposes, as outlined in ASTM D 2487.
3. Soil description terminology is based on visual estimates (in the absence of laboratory test data) of the percentages of each soil type and is defined as follows:

Primary Constituent:	> 50% - "GRAVEL," "SAND," "SILT," "CLAY," etc.
Secondary Constituents:	> 30% and ≤ 50% - "very gravelly," "very sandy," "very silty," etc.
	> 15% and ≤ 30% - "gravelly," "sandy," "silty," etc.
Additional Constituents:	> 5% and ≤ 15% - "with gravel," "with sand," "with silt," etc.
	≤ 5% - "with trace gravel," "with trace sand," "with trace silt," etc., or not noted.

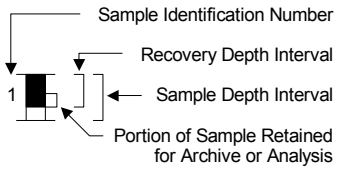
4. Soil density or consistency descriptions are based on judgement using a combination of sampler penetration blow counts, drilling or excavating conditions, field tests, and laboratory tests, as appropriate.

Drilling and Sampling Key

SAMPLER TYPE

Code	Description
a	3.25-inch O.D., 2.42-inch I.D. Split Spoon
b	2.00-inch O.D., 1.50-inch I.D. Split Spoon
c	Shelby Tube
d	Grab Sample
e	Single-Tube Core Barrel
f	Double-Tube Core Barrel
g	2.50-inch O.D., 2.00-inch I.D. WSDOT
h	3.00-inch O.D., 2.375-inch I.D. Mod. California
i	Other - See text if applicable
1	300-lb Hammer, 30-inch Drop
2	140-lb Hammer, 30-inch Drop
3	Pushed
4	Vibrocore (Rotosonic/Geoprobe)
5	Other - See text if applicable

SAMPLE NUMBER & INTERVAL



Field and Lab Test Data

Code	Description
PP = 1.0	Pocket Penetrometer, tsf
TV = 0.5	Torvane, tsf
PID = 100	Photoionization Detector VOC screening, ppm
W = 10	Moisture Content, %
D = 120	Dry Density, pcf
-200 = 60	Material smaller than No. 200 sieve, %
GS	Grain Size - See separate figure for data
AL	Atterberg Limits - See separate figure for data
GT	Other Geotechnical Testing
CA	Chemical Analysis

Groundwater

▽ Approximate water level at time of drilling (ATD)

▼ Approximate water level at time other than ATD

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Soil Classification System and Key

Figure B-1

ASB0119

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						AC	Asphalt concrete pavement	
						SP	Brown, fine SAND with trace silt (medium dense, moist) **(ALLUVIUM)**	
5	5	a1	17	PID = 0.7			- grades to trace gravel	
10	10	a1	13	PID = 0.6			- grades to interbedded with gravel	
15							- grades to gravel and cobble at 14 ft BGS	
	17	a1	62			SP	Brown, very gravelly, fine to medium SAND with trace silt (very dense, wet)	▽ ATD
20	18.5	a1	41				becomes fine to medium SAND, trace gravel and silt - grades trace gravel at 18.5 ft BGS	
25	25	a1	50/6"	PID = 1.5			- grades with gravel at 25 ft BGS	
30	29	a1	52	PID = 1.4				
35								

Boring Completed 12/03/03
Total Depth of Boring = 30.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0119

Figure B-2

ASB0120

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						SM	Brown, silty, fine SAND, trace gravel (loose, moist, no odor)(alluvium)	
5		a1	8	1.4				
10		a1	23	3.5			grades to medium dense with 0.2 ft layer of fine to medium SAND with gravel, trace silt	
15	1	a1	49	3.8		GM	Brown, silty, sandy, fine to coarse GRAVEL with cobble (very dense, wet, no odor, no sheen)	ATD
	2	a1	68					
20							grades to trace cobble	
						SP-SM	Black, fine to coarse SAND with gravel and silt (dense, wet, no odor, no sheen)	
25	3	a1	39	3.5				
30	4	a1	62				grades to no gravel	
35								

Boring Completed 12/04/03
Total Depth of Boring = 31.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0120

Figure
B-3

ASB0121

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Hollow-stem Auger
Ground Elevation (ft): 86.5
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	
0					CONC	Concrete slab
					SP	SAND
					CONC	Concrete slab
					SM	Brown, silty, fine SAND (loose, damp, no odor)(alluvium)
5	1	a1	17	3.7		
10	2	a1	15	4.6		
					GM	Brown, silty, sandy, fine to coarse GRAVEL (very dense, moist, no odor)
15	3	a1	50	3.1		
						ATD
20	4	a1	50/ 6"	2.8		becomes wet, no odor, no sheen
25						
30						
35						

Boring Completed 12/04/03
Total Depth of Boring = 21.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0121

Figure
B-4

ASB0122

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete slab	
						SM	Brown, silty, fine SAND with fine to coarse gravel (very dense, damp, no odor)	
5	1	a1	50/ 6"	8.3			becomes dark gray with organic odor	
10	2	a1	89/ 6"	8.8			becomes with cobble, moist, possible solvent odor	
15	3	a1	24	23.5			Dark gray, silty, fine SAND (medium dense, moist, moderate to strong petroleum or solvent odor)	
							@15.4 ft: 0.3 ft thick layer of SILT (odor above and below layer)	▽ ATD
						SP-SM	Dark gray, gravelly, fine to medium SAND with silt (dense, wet, hydrogen sulfide odor)	
20	4	a1	35	3.7				
25								
30								
35								

Boring Completed 12/04/03
Total Depth of Boring = 21.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0122

Figure B-5

ASB0123

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete slab	
						SP-SM	Dark brown, fine SAND with silt and fine to coarse gravel (very dense, moist, organic odor)	
5	1	a1	50/6"	3.5				
						SM	Dark brown, silty, gravelly, fine SAND (very dense, moist, no odor)	
10	2	a1	87/6"	3.2				
15	3	a1	60/6"	3.4				
						SP-SM	Dark brown, fine to coarse SAND with silt and fine to coarse gravel (dense, wet, no odor, no sheen)	▽ ATD
20	4	a1	42	2.7				
25								
30								
35								

Boring Completed 12/04/03
Total Depth of Boring = 21.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0123

Figure B-6

ASB0124

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	
0						AC	Asphalt concrete	
						SM	Brown, silty, fine SAND (medium dense, damp, no odor)	Groundwater not encountered.
5	1	a1	24	1.3				
						GM	Brown, sandy, fine to coarse GRAVEL with silt (very dense, damp, no odor)	
10	2	a1	50/ 6"	1.2				
15	3	a1	60/ 6"	2.4			becomes moist	
20								
25								
30								
35								

Boring Completed 12/05/03
Total Depth of Boring = 17.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0124

Figure B-7

ASB0125

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	
0						AC	Asphalt concrete	
						SM	Brown, silty, fine SAND (medium dense, damp, no odor)	Groundwater not encountered.
5	1	a1	25	1.7			@5.5 ft: silty, pea gravel (tank backfill)	
10	2	a1	50/ 6"	1.3		SP-SM	Brown, gravelly, medium SAND with silt (very dense, damp, no odor)	
						SM	Brown, gravelly, silty, fine SAND (very dense, moist, no odor)	
15	3	a1	60/ 6"	2.4				

Boring Completed 12/05/03
Total Depth of Boring = 17.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0125

Figure
B-8

ASB0126

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
						SM	Brown, silty, fine to medium SAND (dense, moist, moderate stale odor, no sheen) (fill)	
5								
10								
15	1	a1	75	2.5		CONC	Gray, CONCRETE with 1-inch epoxy on top and horizontal 1/2 inch rebar.	
						GP	Brown, sandy GRAVEL with silt (dense, wet, no odor, no sheen) (alluvium)	ATD
20								

Boring Completed 12/16/03
Total Depth of Boring = 20.0 ft.

25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0126

Figure
B-9

ASB0127

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
						SM	Brown, silty, fine to medium SAND(dense, moist, moderate stale odor, no sheen) (fill)	
5								
10								
						CONC	Gray, CONCRETE with 1-inch epoxy on top and horizontal 1/2 inch rebar.	
15	1	a1	71	0.5		SP	Dark brown, fine SAND with silt (dense, moist, no odor, no sheen) (fill)	ATD
						ML	Medium brown, SILT with some oxidation mottling (medium stiff, moist, no odor, no sheen) (alluvium)	
20						SP	Medium brown-orange, fine to medium SAND (medium dense, wet, no odor, no sheen) (alluvium)	
25								
30								
35								

Boring Completed 12/17/03
Total Depth of Boring = 20.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0127

Figure
B-10

ASB0128

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
						SM	Brown, silty, fine to medium SAND (dense, moist, moderate stale odor, no sheen) (fill)	
5								
10						CONC	Gray, CONCRETE with 1-inch epoxy on top and horizontal 1/2 inch rebar.	
15	1	a1	50/ 6"	0.9		SM	Gray, silty, fine to medium SAND with gravel (very dense, moist, no odor, no sheen) (alluvium)	ATD
20								

Boring Completed 12/18/03
Total Depth of Boring = 20.0 ft.

25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0128

Figure
B-11

ASB0129

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
						SM	Brown, silty, fine to medium SAND with gravel, homogenous, no odor, no sheen (dense, dry) (fill)	
5	1	a2	21,50/ 6"	0				
10	2	a2	23,50/ 6"	0				
						SM	Brown to gray, silty, fine to medium SAND with gravel, no sheen, slight stale odor (medium dense, damp) (Alluvium)	▽
15	3	a2	8	0				
						SM	Gray, silty, gravelly, fine to coarse SAND, homogenous, no odor, no sheen (dense, wet) (Alluvium)	
20	4	a2	21,50/ 6"	0				

Boring Completed 02/19/04
Total Depth of Boring = 20.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0129

Figure
B-12

ASB0130

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
						SM	Dark brown, silty, fine to medium SAND with 2" rounded gravel, homogenous, no odor, no sheen (dense, dry) (fill)	
5	1	a2	28,50/ 6"	0				
10	2	a2	50/ 6"	0				▽
						SP	Dark brown fine to medium SAND with rounded 2" gravel, homogenous, no odor, no sheen (dense, wet) (Alluvium)	
15	3	a2	20,50/ 6"	0				
						WD	Wood, massive, no odor, no sheen, fresh appearance, homogenous (medium dense	
20	4	a2	21,50/ 6"	0				

Boring Completed 02/19/04
Total Depth of Boring = 20.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0130

Figure
B-13

ASB0131

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
						SM	Brown silty SAND with gravel, homogenous, no odor, no sheen (medium dense, dry) (fill)	
5	1	a2	18	0		ML	Brown with oxidation mottling, sandy SILT, slightly laminated, no odor, no sheen (medium stiff, damp to dry) (Alluvium)	
						SM	Brown, very silty, fine to medium SAND, homogenous, no odor, no sheen (medium dense, damp to dry) (Alluvium)	
10	2	a2	11	0		ML	Brown with oxidation pockets, sandy SILT, homogenous, no odor, no sheen (medium stiff, moist to wet) (Alluvium)	
						SM	Brown, silty, fine to medium SAND, homogenous, no odor, no sheen (medium dense, wet) (Alluvium)	▽
15	3	a2	34	0		SP	Brown, silty, gravelly, fine to medium SAND, homogenous, no odor, no sheen (medium dense, wet) (Alluvium)	
20	4	a2	50/6"	0			Becomes very dense at 20 ft	
25								
30								
35								

Boring Completed 02/19/04
Total Depth of Boring = 20.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0131

Figure
B-14

ASB0132

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
						SM	Dark brown, silty, fine to medium SAND, homogenous, no odor, no sheen (medium dense to loose, damp to dry) (fill)	
5	1	a2	16	0		ML	Brown with oxidation mottling, sandy SILT, homogenous, no odor, no sheen (medium stiff, damp) (Alluvium)	
						SP	Brown, fine to medium SAND with silt, homogenous, no odor, no sheen (dense, dry) (Alluvium)	
10	2	a2	39	0				
						SW	Dark brown, fine to coarse SAND with gravel, homogenous, no odor, no sheen (medium dense, wet) (Alluvium)	
15	3	a2	26	0				▽
20	4	a2	50/ 6"					

Boring Completed 02/18/04
Total Depth of Boring = 20.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0132

Figure
B-15

ASB0133

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
	1	a2	8	0		SM	Medium brown, silty, fine to medium SAND, homogenous, no odor, no sheen (loose to damp to dry) (fill)	
10	2	a2	22	0		SP	Dark brown, fine to medium SAND, homogenous, no odor, no sheen (medium dense, dry) (Alluvium)	
	3	a2	15,50/ 6"	0		SP	Medium to dark brown, fine to medium SAND with 2" rounded gravel, homogenous, no odor, no sheen (very dense, wet) (Alluvium)	▽
20	4	a2	12,50/ 6"	0		GP	Gray rounded GRAVEL with sand, no odor, no sheen (dense, wet) (Alluvium)	
	5	a2	50/ 6"	0		SP	Dark brown, fine to medium SAND with 2" rounded gravel, homogenous, no odor, no sheen (medium dense, wet) (Alluvium)	
30	6	a2	50/ 6"					
	7	a2	50/ 6"	0		SW	Brown, fine to coarse SAND with rounded gravel, 2" and smaller, no odor, no sheen (very dense, wet) (Alluvium)	
40	8	a2	50/ 6"	0				
	9	a2	50/ 6"			GP	Light brown, silty, rounded 2" and smaller GRAVEL, no odor, no sheen (very dense, wet) (Alluvium)	
50	10	a2	50/ 6"	0				

Boring Completed 02/17/04
Total Depth of Boring = 50.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0133

Figure
B-16

ASB0134

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): 86.5 Drilled By: Cascade Drilling Inc.	Water Level
0						CONC	Concrete floor slab	
						ML	Medium brown, SILT, non plastic, homogenous, no odor, no sheen (medium stiff, damp) (Alluvium)	
	1	a2	22	0		SP	Orange brown, fine to medium SAND with silt, homogenous, no odor, no sheen (medium dense, dry) (Alluvium)	
10	2	a2	16	0		SM	Medium brown, very silty, fine to medium SAND, homogenous, no odor, no sheen (medium dense, dry) (Alluvium)	▽
	3	a2	21, 50/ 6"	0		SW	Dark brown to gray, silty, fine to coarse SAND with gravel, homogenous, no odor, no sheen (very dense, wet) (Alluvium)	
20	4	a2	50/ 6"	0		SP	Gray, fine to medium SAND with gravel, homogenous, no odor, no sheen (dense, wet) (Alluvium)	
	5	a2	17, 50/ 6"	0		SW	Gray, well graded, homogenous SAND, no odor, no sheen, (very dense, wet) (Alluvium)	
30	6	a2	50/ 6"	0		GW	Gray, fine to coarse GRAVEL with sand, homogenous, no odor, no sheen (very dense, wet) (Alluvium)	
	7	a2	50/ 6"	0		GP	Gray sandy GRAVEL, homogenous, no odor, no sheen (very dense, wet) (Alluvium)	
40	8	a2	15, 50/ 6"	0				
	9	a2	50/ 6"	0		SP	Light brown, gravelly, fine to coarse SAND with silt, homogenous, no odor, no sheen (very dense, wet) (Alluvium)	
50		a2	50/ 6"	0				

Boring Completed 02/17/04
Total Depth of Boring = 50.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0134

Figure
B-17

ASB0135

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Direct Push

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	USCS Symbol	Description
0			SM	Light brown, silty, fine to medium SAND with gravel, rounded, no odor, no sheen (loose to medium dense, dry); **(FILL)**
			SM	-1(ALLUVIUM)Light gray, very silty, fine SAND; no odor, no sheen (medium dense, wet) <B>>(ALLUVIUM))>>
5	1	e3	PT	
			SM	Dark brown, fibrous PEAT; no odor, no sheen (soft, wet)
			SP-SM	Dark brown with oxidation staining, silty, fine to medium SAND with trace organics; no odor, no sheen (medium dense, moist)
10	2	e3		Dark gray to black with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)
15				

ATD

Boring Completed 03/22/04
Total Depth of Boring = 15.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0135

Figure
B-18

ASB0136

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Direct Push Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						SM	Light brown, silty, fine to medium SAND with gravel, rounded; no odor, no sheen (loose to medium dense, dry) **(FILL)**	
						ML	Light brown with trace oxidation, sandy SILT; no odor, no sheen (medium stiff, moist) **(ALLUVIUM)**	
5	1	e3				SP-SM	Light gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, moist)	
						ML	Light gray, sandy SILT; non-plastic; no odor, no sheen (medium stiff, moist to wet)	
10	2	e3				SP-SM	Gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)	▽ ATD
15	3	e3					- grades to dark gray at 15 ft BGS	
20								
25								
30								
35								

Boring Completed 03/22/04
Total Depth of Boring = 17.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0136

Figure
B-19

ASB0137

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Direct Push
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0						SM	Light brown, silty, fine to medium SAND with gravel, rounded; no odor, no sheen (loose to medium dense, dry) **(FILL)**	
						SM	Gray, silty, fine to medium SAND; no odor, no sheen (soft, wet) **(ALLUVIUM)**	
5	1	e3						
						SP-SM	Light gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, moist)	
10	2	e3						ATD
15	3	e3				ML	Gray, sandy SILT; no odor, no sheen (soft, wet)	
						SP-SM	Dark gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)	
						WD	Wood	
						SP-SM	Dark gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)	
20								
25								
30								
35								

Boring Completed 03/22/04
Total Depth of Boring = 16.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0137

Figure
B-20

ASB0138

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						SM	Light brown, silty, fine to medium SAND with gravel, rounded; no odor, no sheen (loose to medium dense, dry) **(FILL)**
						SM	Brown, silty, fine SAND with organic layers; no odor, no sheen (medium dense, moist) **(ALLUVIUM)**
5	1	e3				ML	Light brown with oxidation staining, sandy SILT; non-plastic (medium stiff, moist)
10	2	e3					- grades to gray and very sandy
						SP-SM	Dark gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)
15	3	e3					

ATD

Boring Completed 03/22/04
Total Depth of Boring = 16.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0138

Figure B-21

ASB0139

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Direct Push
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	USCS Symbol	Description
0			SM	Light brown, silty, fine to medium SAND with gravel, rounded; no odor, no sheen (loose to medium dense, dry) **(FILL)**
			SM	Gray with oxidation stains and black mottling, silty, fine SAND; no odor, no sheen (medium dense, moist) **(ALLUVIUM)**
5	1	e3	OL	Medium brown, organic SILT; slightly plastic; no odor, no sheen (medium stiff, moist)
			SP-SM	Dark gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)
10	2	e3		Light gray with trace red grains, fine SAND with silt (medium dense, damp to moist)
15	3	e3		

ATD

Boring Completed 03/22/04
Total Depth of Boring = 16.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0139

Figure
B-22

ASB0140

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Direct Push Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						SM	Light brown, silty, fine to medium SAND with gravel; no odor, no sheen (loose to medium dense, dry) **(FILL)**	
5	1	e3				SP-SM	Brown with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, moist) **(ALLUVIUM)**	
							- grades gray and wet at 8 ft BGS	▽ ATD
10	2	e3				SM	Brown, silty, fine to medium SAND; no odor, no sheen (medium dense, wet)	
15								
20								
25								
30								
35								

Boring Completed 03/22/04
Total Depth of Boring = 12.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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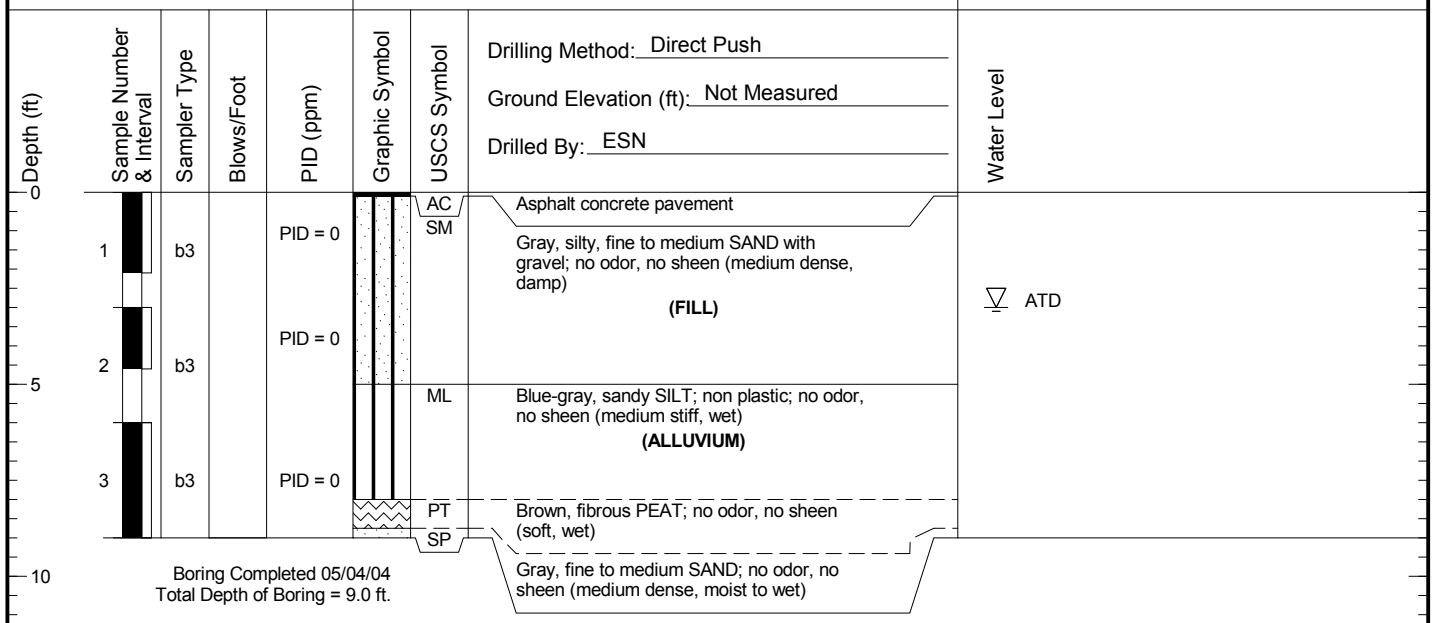
Log of Boring ASB0140

Figure
B-23

ASB0141



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0141

Figure
B-24

ASB0142

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0	3	b3		PID = 0		AC / SM	Asphalt concrete pavement Medium brown with trace red mottling, silty, fine to medium SAND with crushed rock; no odor, no sheen (medium dense, dry) **(FILL)**
5	3	b3		PID = 0		SP-SM	Gray with trace red grains SAND with silt and gravel; no odor, no sheen (medium dense, damp to dry) **(ALLUVIUM)**
	3	b3		PID = 0		ML	Gray, sandy SILT; non-plastic; no odor, no sheen (soft to medium stiff, moist)
						PT / ML	Dark brown, fibrous PEAT; no odor, no sheen (soft, wet)
10	3	b3		PID = 0		SM/ML	Light brown SILT with sand; no odor, no sheen; non plastic (medium stiff, moist) ▽ ATD
	3	b3		PID = 0		SP-SM	Gray, interbedded fine to medium SAND and sandy SILT; no odor, no sheen (medium dense/medium stiff, moist)
15							Dark gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)

Drilling Method: Direct Push

Ground Elevation (ft): Not Measured

Drilled By: ESN

Boring Completed 05/04/04
Total Depth of Boring = 15.0 ft.

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0142

Figure
B-25

ASB0143

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Direct Push

Ground Elevation (ft): Not Measured

Drilled By: ESN

Depth (ft)	Sample Number & Interval	Sampler Type	PID (ppm)	USCS Symbol	Soil Profile
0				SP-SM	<<HasData(Medium brown with oxidation mottling, fine to medium SAND with silt; no odor, no sheen (loose to medium dense, dry)
3		b3	PID = 0		<<C>**(FILL)Medium brown with oxidation mottling, fine to medium SAND with silt; no odor, no sheen (loose to medium dense, dry)**
6		b3	PID = 0	ML	
5				SP-SM	Medium gray, sandy SILT; non-plastic; no odor, no sheen (medium stiff, damp to moist)
9		b3	PID = 0.3	SM	**(ALLUVIUM)**
10				PT	Gray, fine to medium SAND with silt; no odor, no sheen (medium dense, moist to wet)
12		b3	PID = 0.2	SM/ML	Gray, silty, fine to medium SAND; no odor, no sheen (medium dense, moist to wet)
15		b3	PID = 0.5	SP-SM	Brown, fibrous PEAT; no odor, no sheen (soft, wet)
15					Gray, interbedded silty SAND/ sandy SILT with trace organic matter; no odor, no sheen (medium dense/soft, moist)
18		b3	PID = 0		Dark gray to black with trace red and white grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)

ATD

Boring Completed 05/04/04
Total Depth of Boring = 18.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0143

Figure
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ASB0144

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Direct Push Ground Elevation (ft): Not Measured Drilled By: ESN	Water Level
0						SP-SM	Medium brown with oxidation mottling, fine to medium SAND with silt; no odor, no sheen (loose to medium dense, dry) **(FILL)**	
	3	b3		PID = 0				
						SP-SM	Gray, fine to medium SAND with silt and trace rounded gravel (medium dense, damp to moist) **(ALLUVIUM)**	
5	6	b3		PID = 0				
	9	b3		PID = 0.3		PT	Brown, fibrous PEAT; no odor, no sheen (soft, wet)	
						SP-SM	Dark gray, fine to medium SAND with silt; no odor, no sheen (medium dense, damp)	
10	12	b3		PID = 0				
	15	b3		PID = 0.2			- grades black to dark gray with trace red and white grains and moist to wet at 12 ft BGS	▽ ATD
15						ML SP	Gray, sandy SILT; non-plastic, no odor, no sheen (soft to medium stiff, moist)	
	18	b3		PID = 0			Black with trace red grains, fine to coarse SAND with gravel; no odor, no sheen (medium dense, wet)	
20								
25								
30								
35								

Boring Completed 05/04/04
Total Depth of Boring = 18.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0144

Figure
B-27

ASB0145

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						AC	Asphalt concrete pavement
	3	b3		PID = 0.2		SM	Brown, silty, fine to medium SAND with rounded gravel; no odor, no sheen (medium dense, dry) **(FILL)**
						SM	Gray with trace red grains, silty, fine SAND; no odor, no sheen (medium dense, damp) **(ALLUVIUM)**
5	6	b3		PID = 0.2			
				PID = 0.1			
	9	b3				PT	Brown, fibrous PEAT with trace black mottling; no odor, no sheen (soft, wet)
						SP	
10				PID = 0			Black to dark gray with trace red and white grains, fine to medium SAND with silt; no odor, no sheen (medium dense, moist to wet)
	12	b3					
				PID = 0			- grades wet at 13 ft BGS ▽ ATD
	15	b3					
15							Pushed screen to 17 ft with no sample.

Drilling Method: Direct Push

Ground Elevation (ft): Not Measured

Drilled By: ESN

Boring Completed 05/04/04
Total Depth of Boring = 17.0 ft.

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0145

Figure
B-28

ASB0146

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							
	3	b3		PID = 1.1		AC / SM	
							Medium brown with oxidation mottling, fine to medium SAND with silt; no odor, no sheen, (loose to medium dense, dry) **(FILL)**
	6	b3		PID = 0		SM	Medium brown with trace oxidation, silty, fine to medium SAND with gravel; no odor, no sheen (medium dense, dry)
5							Gray with trace red grains, silty, fine to medium SAND; no odor, no sheen (loose to medium dense, damp) **(ALLUVIUM)**
	9	b3		PID = 0		SP-SM	
							▽ ATD
							Dark gray with trace red and white grains, fine to medium SAND with silt; no odor, no sheen (medium dense, moist)
10						ML	
	12	b3				SP-SM	Dark gray, sandy SILT; non-plastic, no odor, no sheen (soft to medium stiff, wet)
							Dark gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, wet)

Boring Completed 05/05/04
Total Depth of Boring = 12.0 ft.

15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0146

Figure
B-29

ASB0147

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0				PID = 1		AC	Asphalt concrete pavement
	3	b3				SM	Brown, silty, fine to medium SAND with gravel; no odor, no sheen (medium dense, moist) **(FILL)**
				PID = 0		SM	Dark gray, very silty, fine SAND; no odor, no sheen (loose to medium dense, moist) **(ALLUVIUM)**
5	6	b3					
				PID = 0			
	9	b3					
				PID = 0.5		SP-SM	Black with trace red and white grains, fine to medium SAND with trace silt: slight odor, no sheen (medium dense, moist)
10	12	b3					▽ ATD
				PID = 1.8			- grades wet at 12 ft BGS
	15	b3					
15							

Drilling Method: Direct Push

Ground Elevation (ft): Not Measured

Drilled By: ESN

Boring Completed 05/05/04
Total Depth of Boring = 15.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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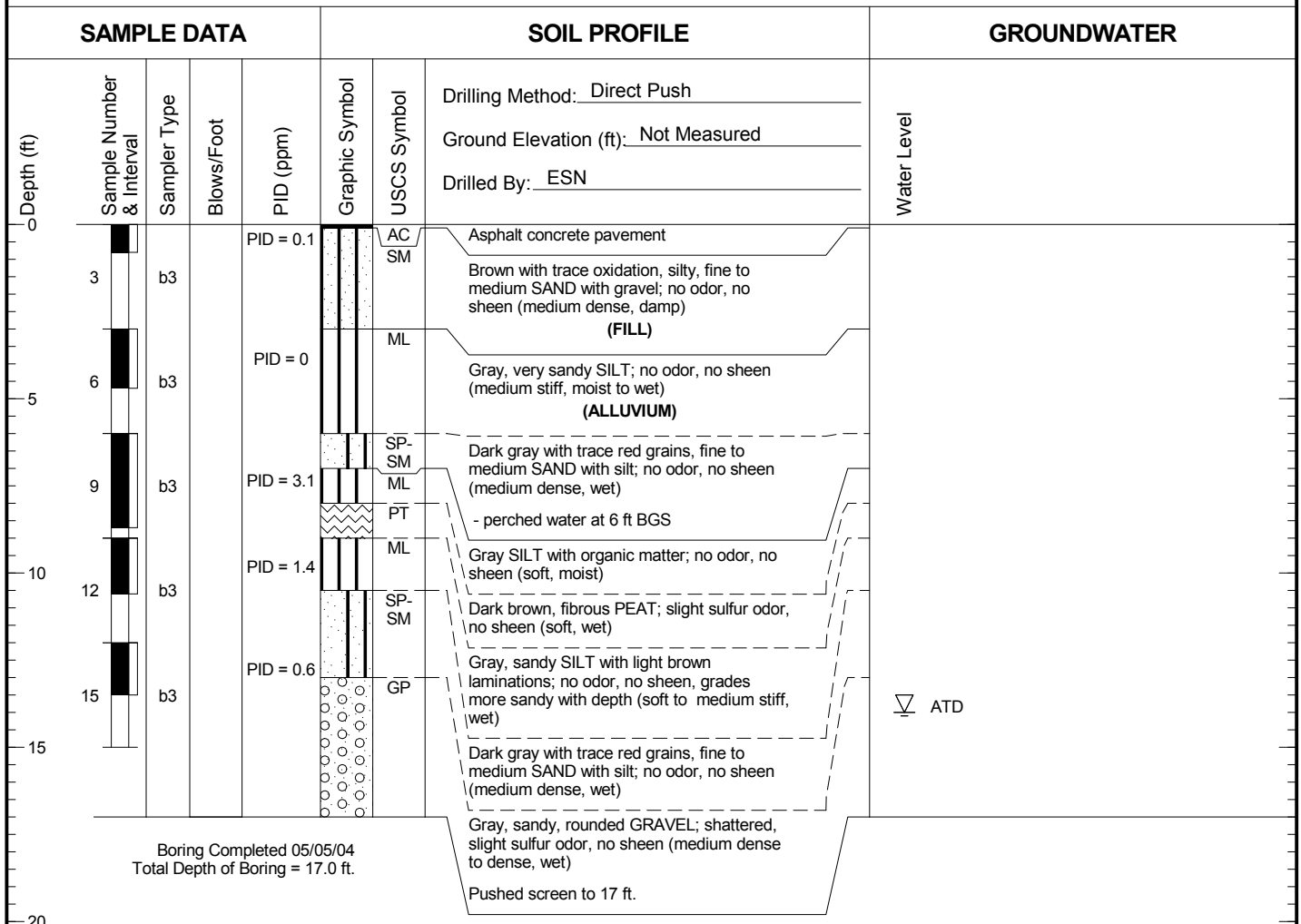
Log of Boring ASB0147

Figure
B-30

ASB0148



Boring Completed 05/05/04
Total Depth of Boring = 17.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0148

Figure
B-31

ASB0149

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Direct Push
Ground Elevation (ft): Not Measured
Drilled By: ESN

Depth (ft)	Sample Number & Interval	Sampler Type	PID (ppm)	USCS Symbol	Description
0				AC	Asphalt concrete pavement
3	3	b3	PID = 0.4	SM	Light gray with trace oxidation at 1.2 ft, silty, fine to medium SAND with gravel; no odor, no sheen (medium dense, damp) **(FILL)**
5	6	b3	PID = 0.1	SP	Light gray, fine to coarse SAND with gravel and trace red brick fragments; no odor, no sheen (medium dense, damp)
	9	b3	PID = 0.4	SM	Light brown, silty, fine to medium SAND with gravel; no odor, no sheen (medium dense, damp)
				SP	**(ALLUVIUM)**
10	12	b3	PID = 0.1		Brown with trace red grains, fine to coarse SAND with gravel; no odor, no sheen (medium dense, damp)
					- grades moist at 11.5 ft BGS
	15	b3	PID = 0		- grades wet at 14 ft BGS
15					ATD
	18	b3	PID = 0	GP	Orange-brown, sandy, rounded GRAVEL with shattered fragments; no odor, no sheen (dense, wet)
			PID = 0		
20	21	b3			
25					
30					
35					

Boring Completed 05/05/04
Total Depth of Boring = 21.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0149

Figure
B-32

ASB0150

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Direct Push
Ground Elevation (ft): Not Measured
Drilled By: ESN

Depth (ft)	Sample Number & Interval	Sampler Type	PID (ppm)	USCS Symbol	Description
0				AC	Asphalt concrete pavement
	3	b3	PID = 6.5	SM	Light brown with trace oxidation mottling, silty, fine to medium SAND with gravel; no odor, no sheen (medium dense, damp) **(FILL)**
			PID = 1.1		
5	6	b3			
			PID = 0.1		
	9	b3			
10			PID = 0	SM	Brown with trace red grains, silty, fine to medium SAND; no odor, no sheen (medium dense, moist) **(ALLUVIUM)**
	12	b3			
				SP-SM	Dark gray with trace red grains, fine to medium SAND with silt; no odor, no sheen (medium dense, moist)
	15	b3	PID = 0.8		
15				GM	Light gray, silty, rounded GRAVEL; no odor, no sheen (medium dense to dense, moist)
	18	b3	PID = 0.5	SP-SM	Dark brown with trace red and orange grains, fine to medium SAND with silt; no odor, no sheen (medium dense, moist)
			PID = 0.2	GP	Light brown, sandy GRAVEL; shattered in sampler, no odor, no sheen (dense, wet)
20	21	b3			

ATD

Boring Completed 05/06/04
Total Depth of Boring = 21.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0150

Figure
B-33

ASB0151

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							
	3	b3		PID = 0		SM	Brown, silty, fine to medium SAND with gravel; no odor, no sheen (medium dense, damp)
						SP-SM	**(FILL)**
	6	b3		PID = 0			Dark brown with trace red grains, fine to medium SAND with silt; no odor, no sheen (loose to medium dense, damp)
5							**(ALLUVIUM)**
	9	b3		PID = 0			
	12	b3		PID = 0		GP	Light brown to gray, sandy GRAVEL; shattered, no odor, no sheen (dense, damp to dry)
	15	b3		PID = 0			- grades wet at 13 ft BGS
10							Pushed screen to 17 ft.
15							ATD
20							
25							
30							
35							

Drilling Method: Direct Push

Ground Elevation (ft): Not Measured

Drilled By: ESN

Boring Completed 05/06/04
Total Depth of Boring = 17.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0151

Figure
B-34

ASB0152

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Direct Push

Ground Elevation (ft): Not Measured

Drilled By: ESN

Depth (ft)	Sample Number & Interval	Sampler Type	PID (ppm)	USCS Symbol	Description
0				AC	Asphalt concrete pavement
	3	b3	PID = 1.8	SM	Light brown, silty, fine to medium SAND with gravel; no odor, no sheen (medium dense, dry)
				SP-SM	**(FILL)**
	6	b3	PID = 1.3		Dark brown, fine to medium SAND with silt; no odor, no sheen (medium dense, damp) **(ALLUVIUM)**
5				GP-GM	- grades dark gray with trace white grains, slightly laminated with oxidation in laminations (loose to medium dense)
	9	b3	PID = 0.5	SP-SM	Light brown, sandy GRAVEL with silt; no odor, no sheen (dense, dry)
				GP	Dark gray with trace red and white grains, fine to medium SAND with silt; no odor, no sheen (loose to medium dense, damp to moist)
10	12	b3	PID = 0.3		Light brown, sandy GRAVEL; no odor, no sheen (dense, dry to damp)
	15	b3	PID = 0		- grades dark gray and wet at 12 ft BGS
15					Pushed screen to 16 ft.

▽ ATD

Boring Completed 05/06/04
Total Depth of Boring = 16.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0152

Figure
B-35

ASB0154

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						PC	Portland cement concrete	
						GP	Gray sandy, fine to coarse GRAVEL; no odor or sheen (medium dense to dense, dry) **(ALLUVIUM)**	
5								
10								
15							- grades wet at 16 ft BGS	▽ ATD
20							No sampling conducted, lithology logged by cuttings	
25								
30								
35								

Boring Completed 08/23/04
Total Depth of Boring = 20.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0154

Figure
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ASB0155

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						PC	Portland cement concrete	
						SP	Brown, gravelly, fine to medium SAND; no odor or sheen **(FILL)** - cobbly drilling at 3 ft BGS	
5						SP	Brown, fine to medium SAND with gravel (loose to medium dense, damp) **(ALLUVIUM)** - grades black with trace white grains and with trace silt	
10								
15								▽ ATD
20								
25							- temporary screen placed from 27.5-32.5	
30							No sampling conducted, lithology logged by cuttings	
35								

Boring Completed 08/23/04
Total Depth of Boring = 32.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0155

Figure
B-37

ASB0156

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

0 — PC — Portland cement concrete

SM — Brown, silty, fine to medium SAND with crushed gravel; no odor or sheen (medium dense, moist)

SP — **(FILL)**

Brown, gravelly, fine to medium SAND; no odor or sheen (medium dense, damp)

5 — SP — Brown fine to medium SAND with gravel; no odor or sheen (medium dense, moist)

(ALLUVIUM)

- tough drilling to 8 ft BGS

10

15

▽ ATD

20

25

30

35

No sampling conducted, lithology logged by cuttings

Boring Completed 08/24/04
Total Depth of Boring = 32.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0156

Figure
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ASB0157

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Hollow-stem Auger

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

0 — PC — Portland cement concrete

SM — Brown, silty, fine to medium SAND with gravel and cobble; no odor or sheen (medium dense, damp)

(FILL)

SP — - cobbly drilling at 2 ft BGS

5 — Dark brown, fine to medium SAND with trace silt and gravel; no odor or sheen (medium dense, damp)

(ALLUVIUM)

10 — - grades black with trace white grains, loose to medium dense and moist to wet at 8 ft BGS

15 — - wood fibers at 15 ft BGS

▽ ATD

20 — No sampling conducted, lithology logged by cuttings

Boring Completed 08/24/04
Total Depth of Boring = 20.0 ft.

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0157

Figure
B-39

ASB0158

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						PC	Portland cement concrete	
						SM	Brown silty, fine to medium SAND with trace gravel, no odor or sheen (medium dense, damp) **(FILL;** - cobbly drilling at 4 ft BGS	
5						SP	Dark brown, fine to medium SAND with gravel and trace silt; no odor or sheen (medium dense, damp)	
						GP	Brown, coarse, rounded, sandy GRAVEL; no odor or sheen (dense, damp to wet) **(ALLUVIUM)**	
10								
15								▽ ATD
20								
25								
30								
35							No sampling conducted, lithology logged by cuttings	

Boring Completed 08/25/04
Total Depth of Boring = 33.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0158

Figure
B-40

ASB0159

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Direct Push Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						PC	Portland cement concrete	
						SM	Brown, silty, fine to medium SAND with gravel; no odor or sheen (medium dense, damp) **(FILL)**	
5		f3		PID = 0				
		f3		PID = 0		SP-SM	Gray with trace white grains, fine SAND with trace silt; no odor or sheen (medium dense, damp) **(ALLUVIUM)** - grades brown-orange and fine to coarse at 9 ft BGS	
10		f3		PID = 0			- grades dark brown, fine to medium SAND with gravel and trace silt at 11 ft BGS	
				PID = 0			- grades medium brown with oxidized grains at 14 ft BGS	
15	ASB0159-16	f3				GP	Gray to black, fine GRAVEL with sand; no odor or sheen (dense, wet)	▽ ATD
	ASB0159-18	f3		PID = 0				
20								

Boring Completed 08/30/04
Total Depth of Boring = 20.0 ft.

25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0159

Figure
B-41

ASB0160R

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						PC	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc. Portland cement concrete
						SM	Brown, silty, fine to medium SAND with gravel; no odor or sheen (loose, damp) **(FILL)**
5	ASB0160R-5	a2	16	PID = 0			
		a2	23	PID = 0		SP	Dark brown with white grains, fine to medium SAND with trace gravel; no odor or sheen (loose, damp) **(ALLUVIUM)**
10		a2	91	PID = 0		GP	Gray, sandy, rounded, coarse GRAVEL; no odor or sheen (dense, damp)
		a2	50/ 6"			GP-GM	Gray, sandy, rounded, coarse GRAVEL with silt; no odor or sheen (dense, damp)
15		a2	50/ 2"				ATD
	ASB0160R-17.5	a2	72	PID = 0			- grades wet with moderate to heavy odor, moderate sheen at 17.5 ft BGS Temporary screen installed from 17-22 ft
20			36				

Boring Completed 09/07/04
Total Depth of Boring = 22.0 ft.

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0160R

Figure
B-42

ASB0161

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						PC	Drilling Method: Direct Push Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc. Portland cement concrete
		f3		PID = 0		SM	Brown, silty, fine to medium SAND with gravel; no odor or sheen (medium dense, damp) **(FILL)**
				PID = 45.2		SP	Gray, fine to medium SAND with trace silt; strong solvent-like odor, no sheen. (medium dense, moist) **(ALLUVIUM)**
5	ASB0161-6	f3					
		f3		PID = 50.9			- grades no odor or sheen and with gravel at 7 ft BGS
10				PID = 26.6			
	ASB0161-14	f3					
15				PID = 0			- grades black with trace white grains at 15 ft BGS ▽ ATD
	ASB0161-16	f3					
20							Boring Completed 08/31/04 Total Depth of Boring = 19.0 ft.
25							
30							
35							

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0161

Figure
B-43

ASB0162

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						PC	Drilling Method: Direct Push Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc. Portland cement concrete
		f3		PID = 8.8		SP-SM	Brown, fine to medium SAND with gravel and silt; no odor or sheen (medium dense, damp) **(FILL)**
5							
	ASB0162-6	f3				SP	Dark gray, fine to medium SAND with gravel and trace silt; no odor or sheen (medium dense, damp) **(ALLUVIUM)**
10		f3		PID = 21.4		ML	Gray sandy SILT; non plastic (soft, moist)
						SM/ML	Medium gray, sandy SILT/ silty SAND; no odor or sheen (medium stiff to medium dense, wet)
	ASB0162-15	f3				SM/ML	Medium gray, sandy SILT/ silty SAND, no odor or sheen (medium stiff to medium dense, wet)
15							▽ ATD
						SP	Black with trace red and white grains, fine to medium SAND with trace silt; no odor or sheen (medium dense)
		f3					- temporary screen installed from 16-20 ft BGS
20							

Boring Completed 08/31/04
Total Depth of Boring = 20.0 ft.

25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0162

Figure
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ASB0163

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						PC	Drilling Method: Direct Push Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc. Portland cement concrete
		f3		PID = 0		SM	Brown with trace oxidation mottling, silty, fine to medium SAND with gravel; no odor or sheen (medium dense, damp) **(FILL)**
		f3		PID = 0			
5		f3		PID = 0		SP	Gray, fine to medium SAND with gravel and trace silt; no odor or sheen (medium dense, damp) **(ALLUVIUM)**
						OL	
						SP	Dark brown, organic SILT (soft, wet)
							Olive gray, fine to medium SAND with gravel and trace silt; no odor or sheen (medium
10		f3		PID = 0		ML	dense, damp)
							Gray sandy SILT; non-plastic, no odor, no sheen (medium stiff, damp)
				PID = 0		SP	Black with trace white grains, fine to medium SAND with gravel and trace silt (medium
	ASB0163-14	f3					dense, damp)
15							
				PID = 0			ATD
	ASB0163-17	f3				GP	Gray, fine to coarse, rounded GRAVEL with wood; no odor or sheen (dense, wet)
20							

Boring Completed 08/31/04
Total Depth of Boring = 20.0 ft.

25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0163

Figure
B-45

ASB0164R

SAMPLE DATA					SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						AC	Asphalt concrete pavement	
		a2	43	PID = 0		SP-SM	Brown, fine to medium SAND with silt; no odor, no sheen (medium dense to dense, damp to dry) **(FILL)**	
5	ASB0164R-5	a2	50/ 8"	PID = 0		SP	Black, fine to medium SAND with gravel; no odor or sheen (medium dense, dry) **(ALLUVIUM)**	
		a2	50/ 3"					
10		a2	50/ 5"	PID = 0		GP	Gray to brown, coarse, rounded GRAVEL with sand and cobble; no odor or sheen (medium dense, damp)	
		a2	50/ 0"					
15		a2	50/ 0"					▽ ATD
		a2	50/ 1"					
20	ASB0164R-19	a2	50/ 2"	PID = 0				
25								
30								
35								

Boring Completed 09/02/04
Total Depth of Boring = 20.2 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0164R

Figure
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ASB0165R

Drilling Method: Hollow-stem Auger
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	SAMPLE DATA / SOIL PROFILE / GROUNDWATER
0						AC	Asphalt concrete pavement
						SP-SM	Brown, fine to medium SAND with silt; no odor or sheen (medium dense, damp to moist) **(ALLUVIUM)**
		a2	45	PID = 0			
5	ASB0165R-5	a2	65/ 11"	PID = 0			
		a2	50/ 6"			GP	- very gravelly drilling at 7 ft BGS Gray, sandy, rounded GRAVEL; no odor or sheen (medium dense, dry)
10		a2	50/ 5"	PID = 0			- cobbly drilling at 9 ft BGS
		a2	50/ 3"				
15		a2	50/ 0"				ATD
20		a2	50/ 0"	PID = 0			
	ASB0165R-22	a2	50/ 6"	PID = 0			- brown to gray shattered GRAVEL at 22 ft BGS
25							Boring Completed 09/02/04 Total Depth of Boring = 23.0 ft.
30							
35							

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0165R

Figure B-47

ASB0166R

Drilling Method: Hollow-stem Auger
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	SOIL PROFILE	Water Level
0						PC	Portland cement concrete	
						SM	Dark brown, silty, fine to medium SAND with crushed gravel (loose, damp) **(FILL)**	
		a2	15	PID = 0				
5				PID = 0				
	ASB0166R-5	a2	59			SP	Dark brown with trace white grains, fine to medium SAND with gravel and trace silt; no odor or sheen (medium dense, damp) **(ALLUVIUM)**	
		a2	50/ 3"	PID = 0				
						GP	- very gravelly drilling at 8 ft BGS	
10		a2	50/ 0"				Gray to brown sandy, fine to coarse GRAVEL; no odor or sheen (dense, damp)	
		a2	50/ 3"	PID = 0				
15		a2	50/ 3"				- large gravel in tip of sampler, gravelly drilling at 15 ft BGS	
							Well screen advanced to 22.5 ft.	▽ ATD
20		a2	50/ 2"	PID = 0				
25								
30								
35								

Boring Completed 09/02/04
Total Depth of Boring = 22.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0166R

Figure
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ASB0167

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						PC	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc. Portland cement concrete
						SP-SM	Brown to gray, fine to coarse SAND with gravel and silt; no odor or sheen (loose to medium dense, dry)
		a2	25	PID = 0		SM	**(FILL)**
5							Medium brown, silty, fine to medium SAND with gravel; no odor or sheen (loose, damp)
	ASB0167-5	a2	34	PID = 0			
		a2	53/ 6"	PID = 0		SP-SM	Black to dark brown, fine to medium SAND with gravel and trace silt; no odor or sheen (medium dense, damp)
							(ALLUVIUM)
10		a2	50/ 5.5"	PID = 0			- grades black with trace white grains and very gravelly at 10 ft BGS
		a2	58	PID = 0			
15							
	ASB0167-15	a2	47	PID = 0			- grades brown to gray, very gravelly, fine to coarse SAND at 15 ft BGS - cobbly drilling at 16 ft BGS ▽ ATD
20							
	ASB0167-20	a2	59	PID = 0			
25							
30							
35							

Boring Completed 09/07/04
Total Depth of Boring = 22.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0167

Figure
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ASB0168

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						PC	Portland cement concrete	
						SM	Medium brown, silty, fine to medium SAND with gravel; no odor or sheen (loose, damp) **(FILL)**	
		a2	9	PID = 0				
5		a2	12	PID = 0				
		a2	28	PID = 0		SP-SM	Dark brown, fine to medium SAND with trace gravel and silt; no odor or sheen, (medium dense, dry to damp) **(ALLUVIUM)**	
10		a2	50/ 6"	PID = 0		GP	Brown to gray, sandy, rounded coarse GRAVEL; no odor or sheen (medium dense, damp to dry)	
		a2	50/ 2"	PID = 0		GP/ SP	Brown to gray, very sandy, coarse GRAVEL/ very gravelly, fine to medium SAND; very light odor, light sheen (dense, damp)	
15	ASB0168-15	a2	95/ 9"	PID = 0				ATD
	ASB0168-17.5	a2	50/ 5"	PID = 0		GP	Black to gray, sandy, coarse GRAVEL; light odor, light sheen (dense, wet)	
20								
25								
30								
35								

Boring Completed 09/07/04
Total Depth of Boring = 22.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0168

Figure
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ASB0169

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						PC	Portland cement concrete	
						SM	Brown, silty, fine to medium SAND with gravel and cobble; no odor or sheen (loose, dry to damp) **(FILL)**	
		a2	18	PID = 0				
5								
	ASB0169-5	a2	50/ 1"	PID = 0		DB	Gray broken up concrete with rebar in cuttings	
		a2	44	PID = 0		SP-SM	Brown, gravelly, fine to medium SAND with silt; no odor or sheen (medium dense, damp) **(ALLUVIUM)**	
10		a2	50/ 6"	PID = 0				
		a2	50/ 5"	PID = 0			- grades dark brown with trace white grains, slight odor, light sheen at 12.5 ft BGS	
15						GP	Brown to gray, sandy, rounded coarse GRAVEL; moderate odor, light sheen (dense, damp)	
	ASB0169-15	a2	87	PID = 0		SP	Black, gravelly, fine to coarse SAND with trace silt; moderate odor, moderate sheen (dense, wet)	▽ ATD
	ASB0169-17.5	a2	50	PID = 0				
20		a2	50/ 3"	PID = 0				
25								
30								
35								

Boring Completed 09/08/04
Total Depth of Boring = 22.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0169

Figure
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ASB0170

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						PC	Portland cement concrete	
						SM	Orange-brown silty, fine to medium SAND with gravel; no odor or sheen (medium dense to dense, dry to damp) **(FILL)**	
		a2	76	PID = 0				
5		a2	34	PID = 0		SP	Dark brown with trace white grains, fine to medium SAND with trace silt; no odor or sheen (medium dense, damp to dry) **(ALLUVIUM)**	
		a2	27	PID = 0				
10		a2	32	PID = 0				
		a2	50/ 0"	PID = 0		GP-GM	Medium gray, sandy, fine to coarse GRAVEL with silt; moderate to strong odor, no sheen (medium dense, moist)	
							- very gravelly drilling at 12 ft BGS	
15	ASB0170-15	a2	49	PID = 0			- free product observed in sample at 15 ft BGS	▽ ATD
							Screen advanced to 22 ft	
	ASB0170-17.5	a2	46	PID = 0				
20								
							Boring Completed 09/09/04 Total Depth of Boring = 22.0 ft.	
25								
30								
35								

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0170

Figure
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ASB0171

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						PC	Portland cement concrete	
						SM	Brown, silty, fine to medium SAND; no odor or sheen (loose, dry) **(FILL)**	
		a2	27	PID = 0			- Layer 0.5 ft thick, medium brown, sandy SILT at 3.25 ft BGS	
5		a2	19	PID = 0				
						SP	Brown with trace white grains, fine to medium SAND with trace silt; no odor or sheen (loose, dry to damp) **(ALLUVIUM)**	
		a2	18	PID = 0				
10		a2	30	PID = 0			- grades medium dense at 10 ft BGS	
		a2	78/ 0"	PID = 0			- grades gray, gravelly, moderate to strong odor, moderate sheen (dense, damp) at 12.5 ft BGS	
15						GP-GM	Gray, sandy, coarse GRAVEL with silt; moderate to strong odor, moderate sheen (medium dense, damp to moist)	
	ASB0171-15	a2	46	PID = 0				ATD
	ASB0171-17.5	a2	56	PID = 0			- strong odor and wet at 17.5 ft BGS	
20								

Boring Completed 09/09/04
Total Depth of Boring = 22.0 ft.

25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0171

Figure
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ASB0172

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	
0						PC	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc. Portland cement concrete
						SM	- oil-soaked sorbent pad at 0.67 ft BGS
	a2	50/ 2"	PID = 0				Light brown to yellow, silty, fine to medium SAND; no odor or sheen (medium dense, damp)
						PC	**(CONTROLLED DENSITY FILL)**
5							Portland cement concrete Boring abandoned
							Groundwater not encountered.

Boring Completed 09/09/04
Total Depth of Boring = 3.4 ft.

10
15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0172

Figure
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ASB0174

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	
0							Vacuumed to 7 ft BGS for utility clearance	Groundwater not encountered.
5		a2	13	0		SP	Medium brown, fine to medium SAND with trace silt; no odor or sheen (medium dense, dry to damp) **(FILL)**	
10		a2	35	0		SP	Dark brown iron oxide stained, fine to coarse SAND with trace silt and gravel ; no odor or sheen (dense, dry to damp) **(ALLUVIUM)**	
		a2	16	0			- grades dark brownish-black with trace orange and white grains, medium dense	
15		a2	22	0		SP	Dark brownish-gray, gravelly, fine to medium SAND with trace silt; no odor or sheen (medium dense, damp)	
		a2	50/ 6"	0		GP	Gray, sandy, fine GRAVEL; no odor or sheen (very dense, wet)	
20							Boring Completed 08/10/05 Total Depth of Boring = 17.0 ft.	
25								
30								
35								

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0174

Figure
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ASB0175

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	
0							Vacuumed to 7 ft BGS for utility clearance	Groundwater not encountered.
5		a2	9	0		SP ML SP	Medium brown, fine to medium SAND with trace silt; no odor or sheen (loose, damp) **(FILL)**	
10		a2	13	0			Medium brown iron oxide stained SILT; laminated; no odor or sheen (soft, moist) **(ALLUVIUM)**	
		a2	28	0		SP-SM	Brownish-gray, fine to medium SAND; no odor or sheen (medium dense, dry to damp)	
15		a2	26			SP	Brown with iron oxide staining, fine to medium SAND with silt lenses; no odor or sheen (medium dense, damp to moist)	
							Dark brownish-gray with trace white grains, fine to coarse SAND with trace gravel; no odor or sheen (medium dense, moist)	
		a2	71			SP-SM	Brownish-gray, very gravelly, fine to medium SAND with silt; no odor or sheen (dense, wet)	
20							Boring Completed 08/10/05 Total Depth of Boring = 18.5 ft.	
25								
30								
35								

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0175

Figure
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ASB0176

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	
0						AC	Asphalt concrete pavement	
							Vacuumed to 7 ft BGS for utility clearance Medium brown, fine to medium SAND with trace silt (dry, loose) **(FILL)**	Groundwater not encountered.
5		a2	19	0		SP	Brown, fine to medium SAND with trace silt; homogeneous; no odor or sheen (loose to medium dense, damp) **(ALLUVIUM)**	
10		a2	15	0				
		a2	13	0				
15		a2	24	0			- grades brown and black with trace white and orange grains, moist	
		a2	92			GP	Dark brown, sandy, coarse GRAVEL (very dense, moist)	
20								
25								
30								
35								

Boring Completed 08/10/05
Total Depth of Boring = 17.5 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0176

Figure
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ASB0177

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						AC	Asphalt concrete pavement
						GP	Brown GRAVEL with sand (medium dense, damp) **(FILL)**
5	S-1	a1	20				
						SM	Brown, silty, fine to medium SAND with trace gravel (loose, damp) **(ALLUVIUM)**
10	S-2	a1	11				
						GP	Brown GRAVEL with trace silt and sand (medium dense, wet)
15		a1	18				ATD
						SP	Brown, fine to medium SAND (medium dense, wet)
20		a1	41			GP	Brown GRAVEL with sand (medium dense, wet)
						SP	Dark brown, fine to medium SAND (medium dense, moist)
25		a1	33			GP	Dark brown GRAVEL with sand (medium dense, moist)
						SP	Dark brown, fine to medium SAND (dense, wet)
30		a1	50/ 6"				- grades gravelly at 30.25 ft BGS
35							

Drilling Method: Hollow-Stem Auger

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Log of Boring ASB0177

Figure
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(1 of 2)

ASB0177

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hollow-Stem Auger Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
35		a1	19			SP	Dark brown, fine to medium SAND (dense, wet) - grades without gravel at 35 ft BGS	
40		a1	50/ 5"				- grades fine to coarse SAND with trace fine gravel at 40 ft BGS	
45		a1	50/ 3"				- grades gravelly at 45 ft BGS	

Boring Completed 09/08/08
Total Depth of Boring = 45.8 ft.

50
55
60
65
70

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0177

Figure
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(2 of 2)

ASB0178

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Hollow-Stem Auger
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	USCS Symbol	Description
0				AC	Asphalt concrete pavement
				SP	Brown, fine to coarse SAND with gravel and trace silt (medium dense, damp) **(FILL)**
	S-1	a1	26		
	S-2	a1	18		
5	S-3	a1	30		
	S-4	a1	26		
	S-5	a1	30		
	S-6	a1	6		- grades loose at 8.5 ft BGS
10	S-7	a1	8		
	S-8	a1	26	ML	Brown SILT (very stiff, damp) **(ALLUVIUM)**
				SP	Brown, fine to coarse SAND with gravel and trace silt (medium dense, damp)
	S-9	a1	32		
15	S-10	a1	33		- grades moist at 15.5 ft BGS
	S-11	a1	32		
	S-12	a1	23		- grades wet at 18.5 ft BGS
20	S-13	a1	24		

ATD

Boring Completed 08/04/08
Total Depth of Boring = 20.5 ft.

25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0178

Figure
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ASB0179

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Rotosonic Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.JMN	Water Level
0						AC	Portland concrete cement	
						GP	3/4" minus base coarse	
						SM	Brown, silty, fine SAND (moist)	
	Run 1	e4		0.0				
5						SP-SM	Gray, gravelly, fine to coarse SAND with silt (moist)	
	Run 2	e4		0.0			- collected soil sample at 6 ft BGS	
	Run 3	e4		0.0			- 4" silty fine sand lens	
10							- grades fine to coarse gravel	
	Run 4	e4		0.0				
15	Run 5	e4		0.0				▽ ATD
							- grades wet - collected soil sample at 17 ft BGS	
	Run 6	e4		0.0				
20								
25								
30								
35								

Boring Completed 10/01/09
Total Depth of Boring = 19.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0179

Figure
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ASB0180

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Hand Auger Ground Elevation (ft): Not Measured Drilled By: LAI	
0						AC	Asphalt concrete pavement	Groundwater not encountered.
						GP	3/4" minus base coarse	
						SP-SM	Brown, gravelly, fine-medium SAND with silt (dry)	
2	S1	d						
						SM	Brown iron oxide mottled, silty, fine SAND with gravel (dry) - grades without gravel	
4							- collected soil sample at 4 ft BGS	

Boring Completed 09/30/09
Total Depth of Boring = 4.0 ft.

6
8
10
12

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.

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Auburn, Washington

Log of Boring ASB0180

Figure
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ASB0181

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0	S-1	d		0.0		GP SP	Gray, sandy gravel (loose, moist) **(FILL)**	ATD
		e4					Dark brown, gravelly, fine to coarse SAND (loose, wet) **(ALLUVIUM)**	
						GP	Dark brown, sandy GRAVEL with organics (medium dense, wet)	
5	S-2	d		0.0			**Groundwater sample ASB0181-5-20130403**	
	S-3	e4 d		0.0		ML	**Groundwater sample ASB0181-5b-20130403**	
							Dark brown, gravelly SILT (medium stiff, wet)	
						SP	Dark gray, fine to medium SAND (loose, wet)	
10	S-4	d		0.0				
		e4						
15							**Groundwater sample ASB0181-15-20150403**	
		e4						
						WD	WOOD with gravel	
	S-5	d		0.0		GP	Dark gray, very sandy GRAVEL (medium dense, wet)	
20						SP		
				0.0		GP	Dark gray, fine to coarse SAND (dense, wet)	
				0.0			Dark gray, GRAVEL with sand (dense, wet)	
		e4		0.0				
25							**Groundwater sample ASB0181-25-20130403**	
30								
35								

Boring Completed 04/03/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-11.

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Auburn, Washington

Log of Boring ASB0181

Figure
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ASB0182

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	SOIL PROFILE	Water Level
0						AC	Asphalt concrete pavement	
						GP		
	S-1	d				SP	Brown, sandy GRAVEL (dense, dry) **(FILL)**	
		e4						
	S-2	d				PT	Brownish-black, gravelly, fine to coarse SAND (dense, dry) **(ALLUVIUM)**	
	S-3	d		0.0		SP-SM		
5							- grades gray	ATD
	S-4	d				SM	Dark brown PEAT (soft, wet)	
		e4					Brownish-gray, fine to medium SAND with silt and organics (medium dense, moist)	
	S-5	d		0.0		ML	Brownish-gray, silty fine SAND (medium dense, wet)	
10	S-6	d		0.0			Brownish-gray, sandy SILT (medium stiff, wet)	
	S-7	d				SM	**Groundwater sample ASB0182-9-20130403**	
		e4					**Groundwater sample ASB0182-9b-20130403**	
15							Brownish-gray, very silty, fine SAND (medium dense, wet)	
	S-8	d		0.0		SP	Dark gray fine to medium SAND (medium dense, wet)	
		e4					**Groundwater sample ASB0182-15-20130403**	
		d				GP		
	S-9						Dark gray, sandy GRAVEL (medium dense, wet)	
20	S-10	d		0.0		SP	Dark gray, fine to medium SAND (medium dense, wet)	
	S-11	d						
	S-12	e4				GP	Dark gray, sandy GRAVEL (medium dense, wet)	
		d						
25							**Groundwater sample ASB0182-25-20130403**	
30								
35								

Boring Completed 04/04/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-3.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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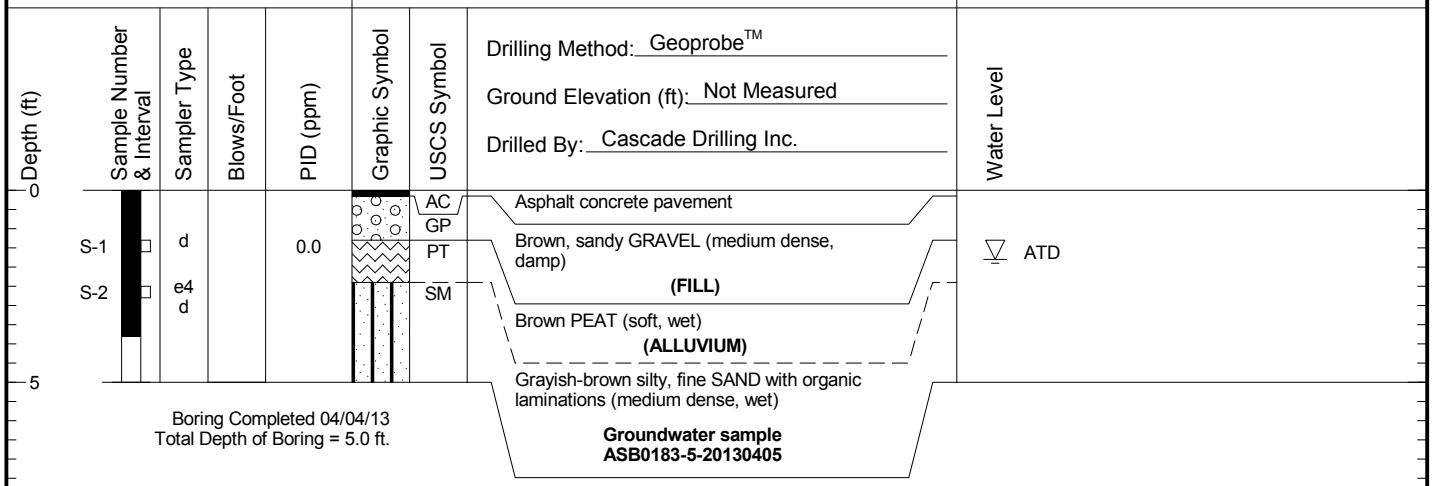
Auburn, Washington

Log of Boring ASB0182

Figure
B-63

ASB0183



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-8.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0183

Figure
B-64

ASB0184

SAMPLE DATA					SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						AC	Asphalt concrete pavement	
	S-1	d		0.0		GP SM	Brown, sandy GRAVEL (medium dense, moist)	ATD
	S-2	e4 d				SM	**(FILL)** Dark brown, silty, fine to medium SAND (loose, wet)	
5	S-3	d				SP-SM	**(ALLUVIUM)** Brownish-gray, very silty, fine SAND (medium dense, wet)	
	S-4	d				ML		
	S-5	d				SP	Dark gray, fine to medium SAND with silt (medium dense, wet)	
		e4				ML		
	S-6	d		0.0			**Groundwater sample ASB0184-5-20130405**	
10	S-7	d		0.0		SP-SM	**Groundwater sample ASB0184-5b-20130405**	
	S-8	d				SP	Grayish-brown, SILT with sand (medium stiff, wet)	
		e4					Dark gray, fine to medium SAND (medium dense, wet)	
	S-9	d				GP	Grayish-brown, SILT with sand (stiff, wet)	
15	S-10	d		0.0		SP-SM	Dark gray, fine to medium SAND with silt (medium dense, wet)	
	S-11	d				GP		
	S-12	d				SP	Dark gray, fine to medium SAND (medium dense, wet)	
		e4					Dark gray, sandy GRAVEL (medium dense, wet)	
20	S-13	d					Dark gray, fine to coarse SAND with silt (medium dense, wet)	
		e4					**Groundwater sample ASB0184-15-20130405**	
	S-14	d				GP	Dark gray, GRAVEL with sand (medium dense, wet)	
	S-15	d		0.0		SP	Dark gray, gravelly, fine to coarse SAND (medium dense, wet)	
25							- grades fine to medium sand and trace gravel @ 20 ft. (medium dense, wet)	
							Dark gray, GRAVEL with sand (medium dense, wet)	
							Dark gray, gravelly, fine to coarse SAND (medium dense, wet)	
30							**Groundwater sample ASB0184-25-20130405**	
35								

Boring Completed 04/05/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-10.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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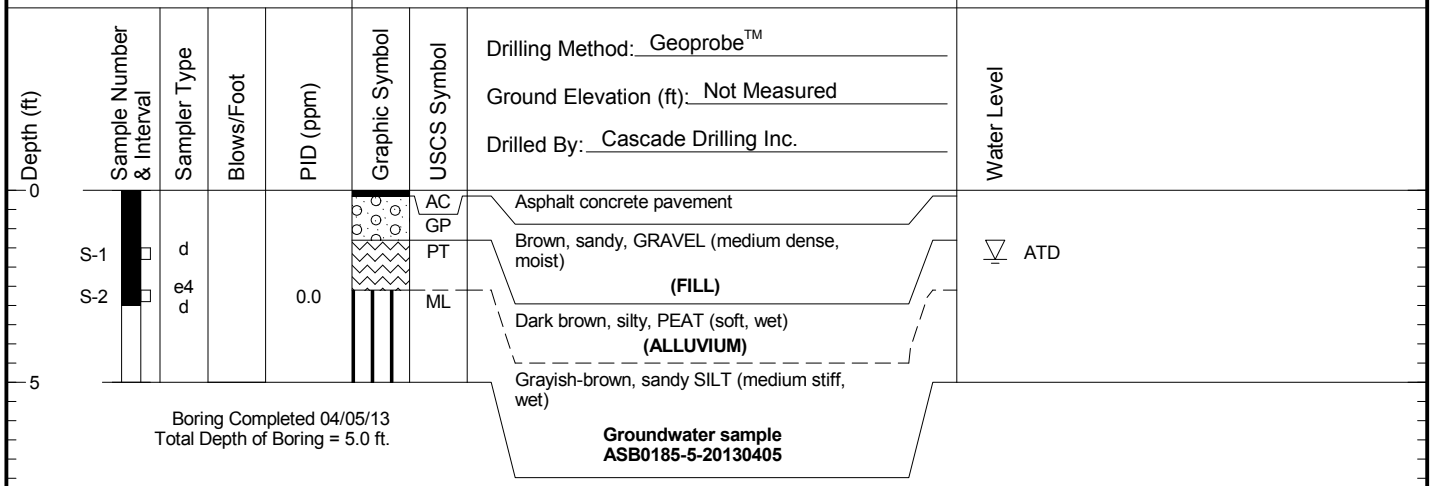
Auburn, Washington

Log of Boring ASB0184

Figure
B-65

ASB0185



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-19.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0185

Figure
B-66

ASB0186

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
	S-1	d				GP		
						SM	Brown, sandy GRAVEL (medium dense, dry) **(FILL)**	
	S-2	d		0.0		SM		
		e4					Dark brown, silty, fine to coarse SAND with gravel (medium dense, damp) **(ALLUVIUM)**	ATD
5							- grades with trace organics	
	S-3	d		0.5		SP-SM	Gray, silty, fine SAND with organics (medium dense, wet)	
	S-4	e4				SP	Grayish-brown, fine to medium SAND with silt (loose, wet)	
		d				SP-SM	**Groundwater sample: ASB0186-5-20130408**	
10						SP	- grades with wood pieces	
							Dark gray, fine to medium SAND (medium dense, wet)	
	S-5	d		0.2		ML		
	S-6	e4					Grayish-brown, fine to medium SAND with silt (medium dense, wet)	
	S-7	d						
		d						
	S-8	d		0.0			Dark gray, fine to medium SAND (medium dense, wet)	
15	S-9	d				SP-SM	Brownish-gray, sandy SILT (medium stiff, wet)	
	S-10	d				SM	- Driller reported experiencing heave	
		e4						
	S-11	d				SP-SM	Dark gray, fine to medium SAND with silt (medium dense, wet)	
							Groundwater sample: ASB0186-15-20130408	
20	S-12	d		0.0			Dark gray, very silty, fine to medium SAND (medium dense, wet)	
		e4					Dark gray. fine SAND with silt (medium dense, wet)	
	S-13	d				GP	Dark gray, sandy GRAVEL (medium dense, wet)	
25							**Groundwater sample: ASB0186-25-20130408**	
30								
35								

Boring Completed 04/08/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-9.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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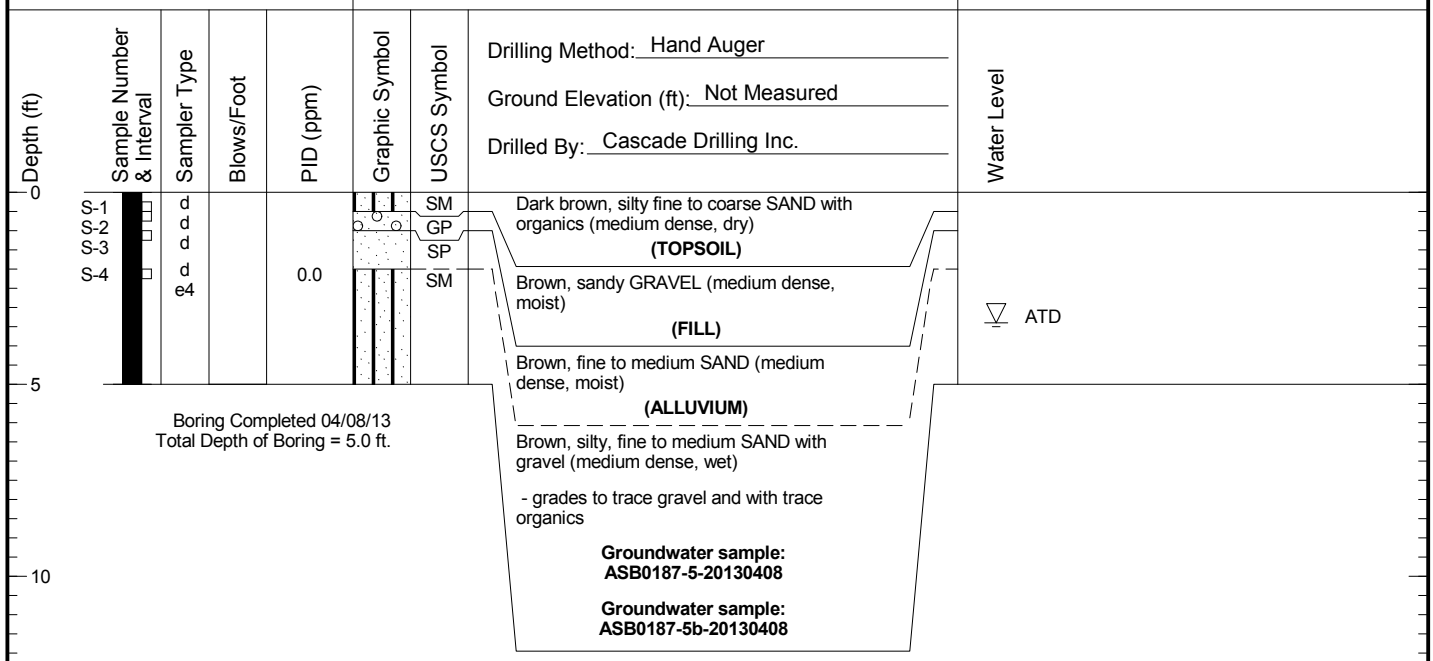
Auburn, Washington

Log of Boring ASB0186

Figure
B-67

ASB0187



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-14.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0187

Figure
B-68

ASB0188

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	PID (ppm)	USCS Symbol	Soil Profile
0	S-1	d		AC	Asphalt concrete pavement
				GP	
				SM	Brown, sandy GRAVEL (medium dense, moist)
	S-2	e4	0.5	SP-SM	**(FILL)**
		d			Brown, silty, fine to coarse SAND with gravel (medium dense, wet)
5	S-3	d		SP	**(ALLUVIUM)**
					Brown, fine to medium SAND with silt (medium dense, wet)
	S-4	d	0.7	SM	
	S-5	d		SP-SM	Brown, fine to medium SAND (medium dense, wet)
	S-6	e4			
	S-7	d			**Groundwater sample: ASB0188-5-20130409**
	S-8	d			
		d		SP-SM	**Groundwater sample: ASB0188-5b-20130409**
10	S-9	d		ML	
				SM	
	S-10	d	0.8	SP	Grayish-brown, very silty, fine to medium SAND (medium dense, wet)
		e4			Dark gray, fine to medium SAND with silt (medium dense, wet)
					Grayish-brown, silty, fine to medium SAND (medium dense, wet)
15	S-11	d	0.6		Dark gray, fine SAND with silt (medium dense, wet)
		e4			Grayish-brown SILT with organics (medium stiff, wet)
					Grayish-brown, very silty, fine SAND (medium dense, wet)
20	S-12	d		GP	Dark gray, fine to medium SAND (medium dense, wet)
	S-13	d	0.0	ML	
		e4		SP	**Groundwater sample: ASB0188-15-20130409**
					Dark gray, sandy GRAVEL (medium dense, wet)
25					Grayish-brown, sandy SILT (soft, wet)
					Dark gray, fine to medium SAND (medium dense, wet)
					Groundwater sample: ASB0188-25-20130409
30					
35					

▽ ATD

Boring Completed 04/09/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-20.

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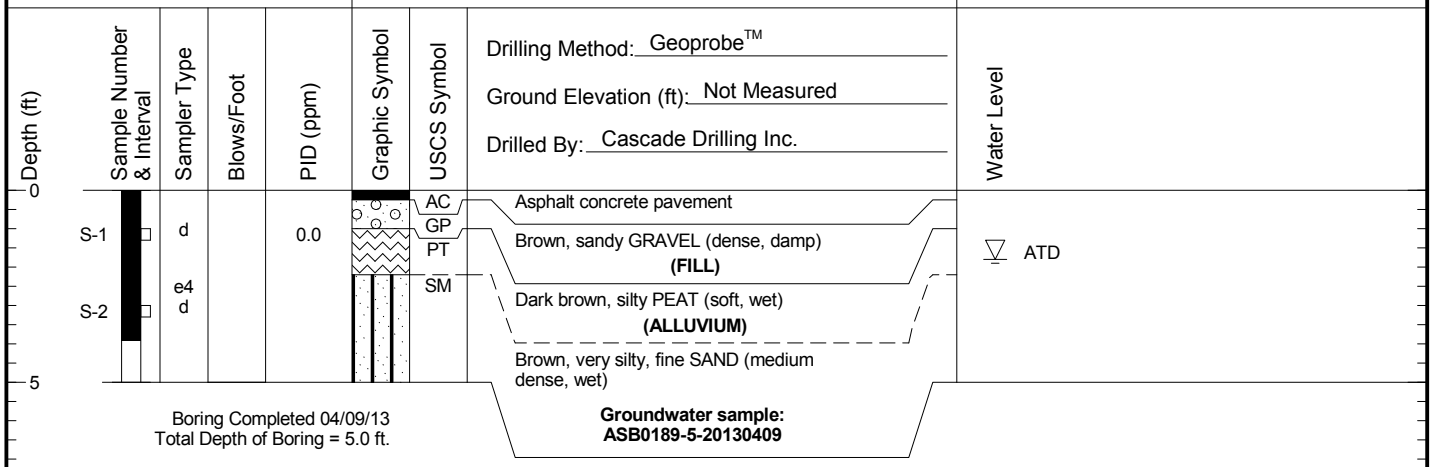
Auburn, Washington

Log of Boring ASB0188

Figure
B-69

ASB0189



10
15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-29.

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Auburn, Washington

Log of Boring ASB0189

Figure
B-70

ASB0190

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample	Sampler Type	PID (ppm)	USCS	Description
0	S-1	d	0.0	GP	Brown, sandy GRAVEL (medium dense, moist) **(FILL)**
		e4			
5	S-2	d		GP-GM	Brown, sandy GRAVEL with silt (medium dense, wet)
	S-3	d	0.0	SM	
	S-4	d ee		SP	Brown, very silty, fine SAND (medium dense, wet) **(ALLUVIUM)**
					Dark gray, fine to medium SAND (medium dense, wet)
10					**Groundwater sample: ASB0190-10-20130410**
	S-5 S-6	d d e4	0.0	GP	**Groundwater sample: ASB0190-10b-10230410**
					Dark gray, sandy GRAVEL (medium dense, wet)
15	S-7	d	0.0	SP	Dark gray, fine to medium SAND (medium dense, wet)
					Groundwater sample: ASB0190-15-20130410
	S-8	e4 d		GP	Dark gray, sandy GRAVEL (medium dense, wet)
20				SP	Dark gray, fine to medium SAND (medium dense, wet)
		e4			
	S-9	d	0.0	GP	Dark gray GRAVEL with sand (medium dense, wet)
25					**Groundwater sample: ASB0190-25-20130410**

Water Level: ATD

Boring Completed 04/10/13
Total Depth of Boring = 25.0 ft.

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-31.

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Auburn, Washington

Log of Boring ASB0190

Figure
B-71

ASB0191

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							
	S-1	e4 d		0.0		AC	
						GP	
						SM	ATD
5							

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Asphalt concrete pavement

Brown, sandy GRAVEL (medium dense, damp)

(FILL)

Brown, very silty, fine SAND (medium dense, wet)

(ALLUVIUM)

- grades with iron oxide mottling at 2.5 ft

Boring Completed 04/10/13
Total Depth of Boring = 5.0 ft.

Groundwater sample: ASB0191-5-20130410

10
15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-34.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0191

Figure
B-72

ASB0192

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	PID (ppm)	USCS Symbol	Soil Profile
0	S-1	d		SM	Brown, silty, fine to medium SAND (loose, moist)
				SP-SM	**(ALLUVIUM)**
		e4			Brownish-gray, fine to medium SAND with silt (loose, moist)
					ATD
5	S-2	d	0.8		- grades brown, medium dense and wet
					Groundwater sample: ASB0192-5-20130411
	S-3	d		SM	
		e4			**Groundwater sample: ASB0192-5b-20130411**
				SP-SM	Brownish-gray, very silty, fine SAND (medium dense, wet)
	S-4	d		SM	
10				SP	Brownish-gray, fine SAND with silt (medium dense, wet)
	S-5	d	0.0		Brownish-gray, silty, fine SAND (medium dense, wet)
		e4			Dark gray, fine to medium SAND (medium dense, wet)
15					**Groundwater sample: ASB0192-15-20130411**
		e4		GP	Dark gray, sandy GRAVEL (medium dense, wet)
	S-6	d	0.9		
20	S-7	d	1.4	SP	Dark gray, fine to coarse SAND (medium dense, wet)
	S-8	e4		GP	Dark gray, sandy GRAVEL (medium dense, wet)
		d			
25					**Groundwater sample: ASB0192-25-20130411**
30					
35					

Boring Completed 04/11/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-21.

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Auburn, Washington

Log of Boring ASB0192

Figure
B-73

ASB0193

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0	S-1	d				SM	
	S-2	d		1.1		ML	ATD
	S-3	d				SM	
		e4					
	S-4	d				SP-SM	
5	S-5	d				SP	

Drilling Method: Hand Auger

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Brown, silty, fine to medium SAND with gravel (medium dense, moist)
(FILL)

Grayish-brown mottled SILT (soft, wet)
(ALLUVIUM)

Grayish-brown, very silty, fine SAND (medium dense, wet)

Dark brown, fine to medium SAND with silt (medium dense, wet)

Dark brown, fine to medium SAND (medium dense, wet)

Groundwater sample: ASB0193-5-20130411

Boring Completed 04/11/13
Total Depth of Boring = 5.0 ft.

10
15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-24.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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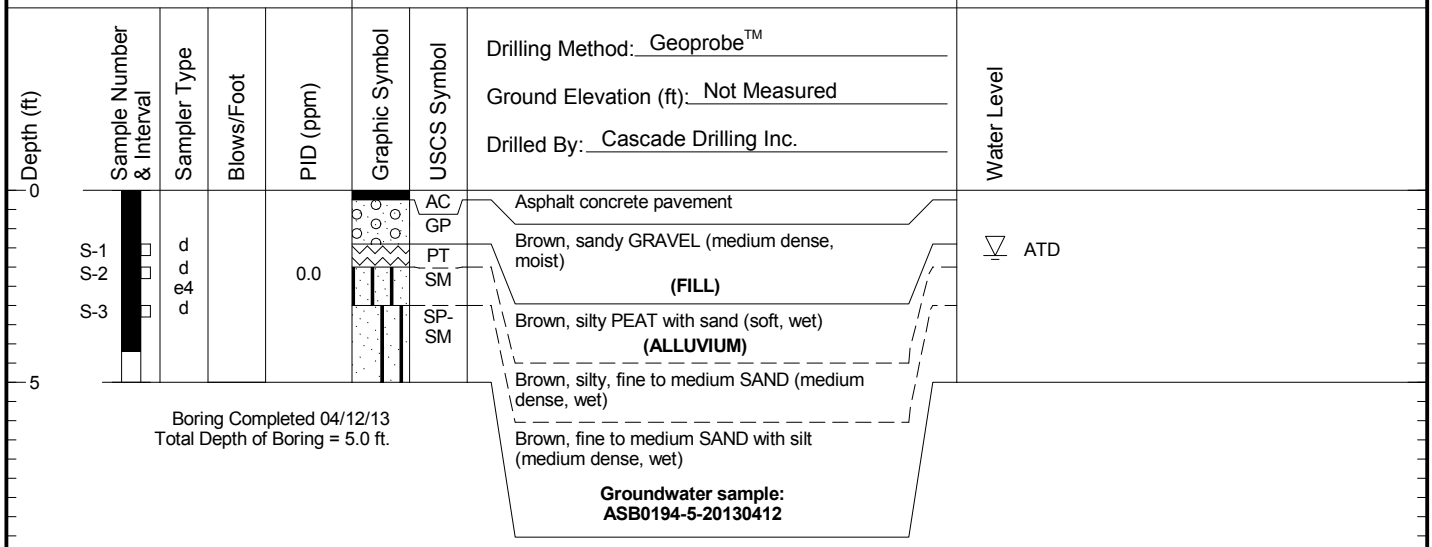
Log of Boring ASB0193

Figure
B-74

ASB0194



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-38.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0194

Figure
B-75

ASB0195

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0	S-1	d				AC	
	S-2	d		1.4		GP	
		e4				SM	ATD
						SP	
5							

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Asphalt concrete pavement

Brown, sandy GRAVEL (medium dense, moist)

(FILL)

Brown iron oxide mottled, silty, fine SAND (medium dense, moist)

(ALLUVIUM)

Brown, fine SAND (medium dense, wet)

Groundwater sample: ASB0195-5-20130412

Boring Completed 04/13/13
Total Depth of Boring = 5.0 ft.

10 15 20 25 30 35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-39.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0195

Figure
B-76

ASB0196

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						AC	
	S-1	d		0.7		GP-GM	ATD
	S-2	d				PT	
	S-3	d				SP-SM / SP	
		e4					
5							
10							
15							
20							
25							
30							
35							

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Asphalt concrete pavement

Brown, sandy GRAVEL with silt (medium dense, wet)

(FILL)

Brown, PEAT (very soft, wet)

(ALLUVIUM)

Dark brown, fine SAND with silt (loose, wet)

Dark brown fine SAND (loose, wet)

Groundwater sample: ASB0196-5-20130412

Groundwater sample: ASB0196-5b-20130412

Boring Completed 04/12/13
Total Depth of Boring = 5.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-40.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0196

Figure
B-77

ASB0197

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
	S-1	d		0.0		SP-SM	Gray, gravelly, fine to coarse SAND with silt (dense, damp)	
		e4					**(FILL)**	
	S-2	d				SM	Grayish-brown, silty, fine SAND (dense, wet)	ATD
							(ALLUVIUM)	
5	S-3	d		0.0		SM	- grades abundant organics	
	S-4	d				SM	Gray, silty, fine to coarse SAND (dense, wet)	
		e4				SP-SM	Grayish-brown, very silty, fine SAND (medium dense, wet)	
	S-5	d				ML		
	S-6	d				SM	Dark gray, fine to medium SAND with silt (medium dense, wet)	
10							Grayish-brown SILT (soft, wet)	
							Groundwater sample: ASB0197-8-20130415	
							- grades with sand	
							Grayish-brown, very silty, fine SAND (dense, wet)	
15								
20								
25								
30								
35								

Boring Completed 04/15/13
Total Depth of Boring = 10.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-28.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0197

Figure
B-78

ASB0198

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample	Sampler Type	PID (ppm)	USCS	Description
0				AC	Asphalt concrete pavement
				GP	
	S-1	d	1.4	PT	Brown, sandy GRAVEL with trace silt (medium dense, damp) **(FILL)**
	S-2	d		SM	
	S-3	d		ML	
		e4		SM	
	S-4	d		SP	Dark brown PEAT (soft, wet) **(ALLUVIUM)**
5				SP	Gray, silty, fine SAND (medium dense, wet)
	S-5	d			Dark brown SILT with organics (soft, wet)
				SM	
	S-6	d	0.8		Gray, very silty, fine SAND (medium dense, wet)
		e4			- grades with organics
10					Dark gray, fine to medium SAND (medium dense, wet)
				SP	
	S-7	d	0.5		Dark brown, very gravelly, fine to coarse SAND (medium dense, wet)
		e4			**Groundwater sample: ASB0198-5-20130415**
					Brownish-gray, silty to very silty, fine SAND (medium dense, wet)
15	S-8	d	0.9		Dark gray, fine to medium SAND (medium dense, wet)
		e4			**Groundwater sample: ASB0198-15-20130415**
20					
	S-9	d		SP/ ML	Brown, fine to medium SAND interbedded with SILT (medium dense/stiff, wet)
		e4			
	S-10	d	0.0	GP	Dark gray, sandy GRAVEL (medium dense, wet)
25				SP	Dark gray, fine to medium SAND (medium dense, wet)
					Groundwater sample: ASB0198-25-20130415
30					
35					

Water Level: ATD

Boring Completed 04/15/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-30.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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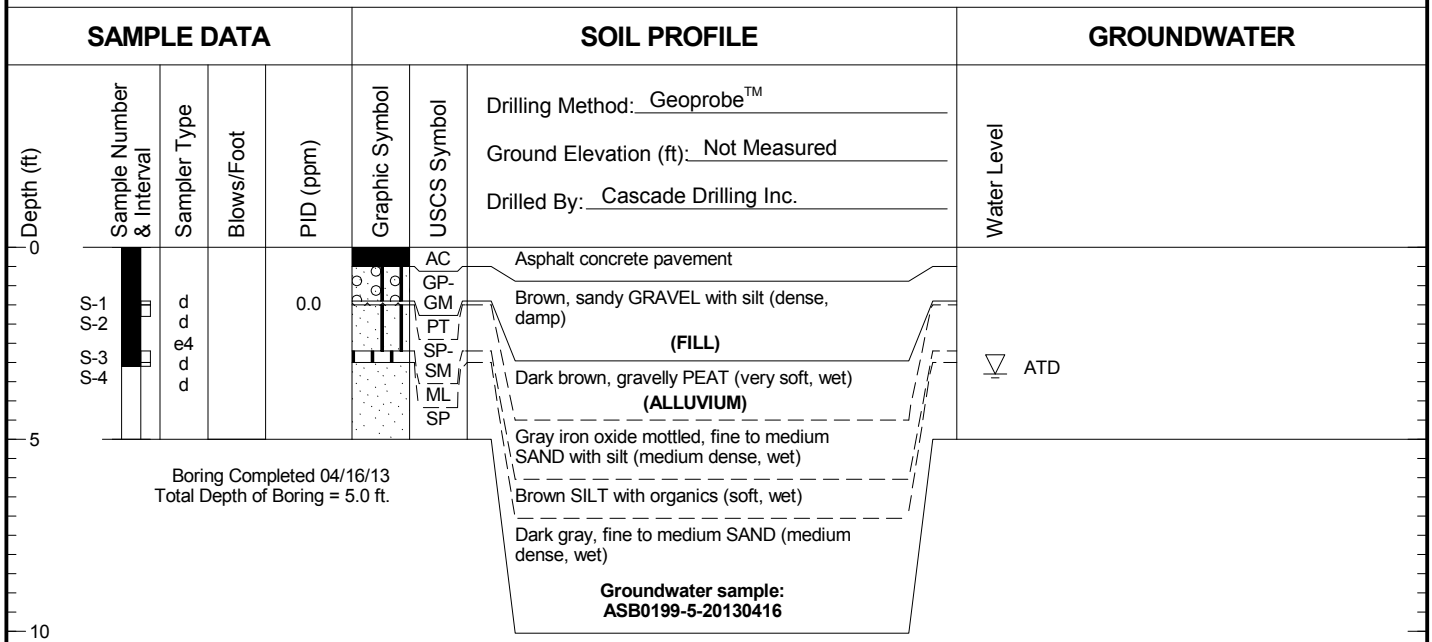
Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0198

Figure
B-79

ASB0199



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-17.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0199

Figure
B-80

ASB0200

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
						GP		
	S-1	d				PT	Brown, sandy GRAVEL (dense, damp) **(FILL)**	ATD
		e4						
	S-2	d		0.3		SP	Dark brown, silty PEAT (soft, wet) **(ALLUVIUM)** - 2 inches of brown SILT with organics	
5	S-3	d		0.7		SP	Gray, fine to medium SAND (medium dense, wet)	
	S-4	d					Dark gray, fine to medium SAND (medium dense, wet)	
		e4				ML		
						SP	**Groundwater sample: ASB0200-5-20130416**	
10							Brownish-gray, sandy SILT (medium stiff, wet)	
							Dark gray, fine to medium SAND (medium dense, wet)	
	S-5	d		0.5				
		e4						
15							**Groundwater sample: ASB0200-15-20130416**	
						GP		
	S-6	d		1.1			Dark gray, sandy GRAVEL (medium dense, wet)	
		e4						
20						SP	Dark gray, fine to medium SAND (medium dense, wet)	
		e4				GP		
	S-7	d		1.3			Dark gray, very sandy GRAVEL (medium dense, wet) - piece of wood	
25							**Groundwater sample: ASB0200-25-20130416**	

Boring Completed 04/16/13
Total Depth of Boring = 25.0 ft.

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-18.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0200

Figure
B-81

ASB0201

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0	S-1	d		0.2		AC	Asphalt concrete pavement
						GP-GM	Brown, sandy GRAVEL with silt (dense, damp)
		e4					**(FILL)**
						ML	Dark brown SILT with abundant organics (very soft, wet)
5	S-2	d		0.2			**(ALLUVIUM)**
		e4					**Groundwater sample: ASB0201-7-20130417**
10							ATD

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Boring Completed 04/17/13
Total Depth of Boring = 10.0 ft.

15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-6.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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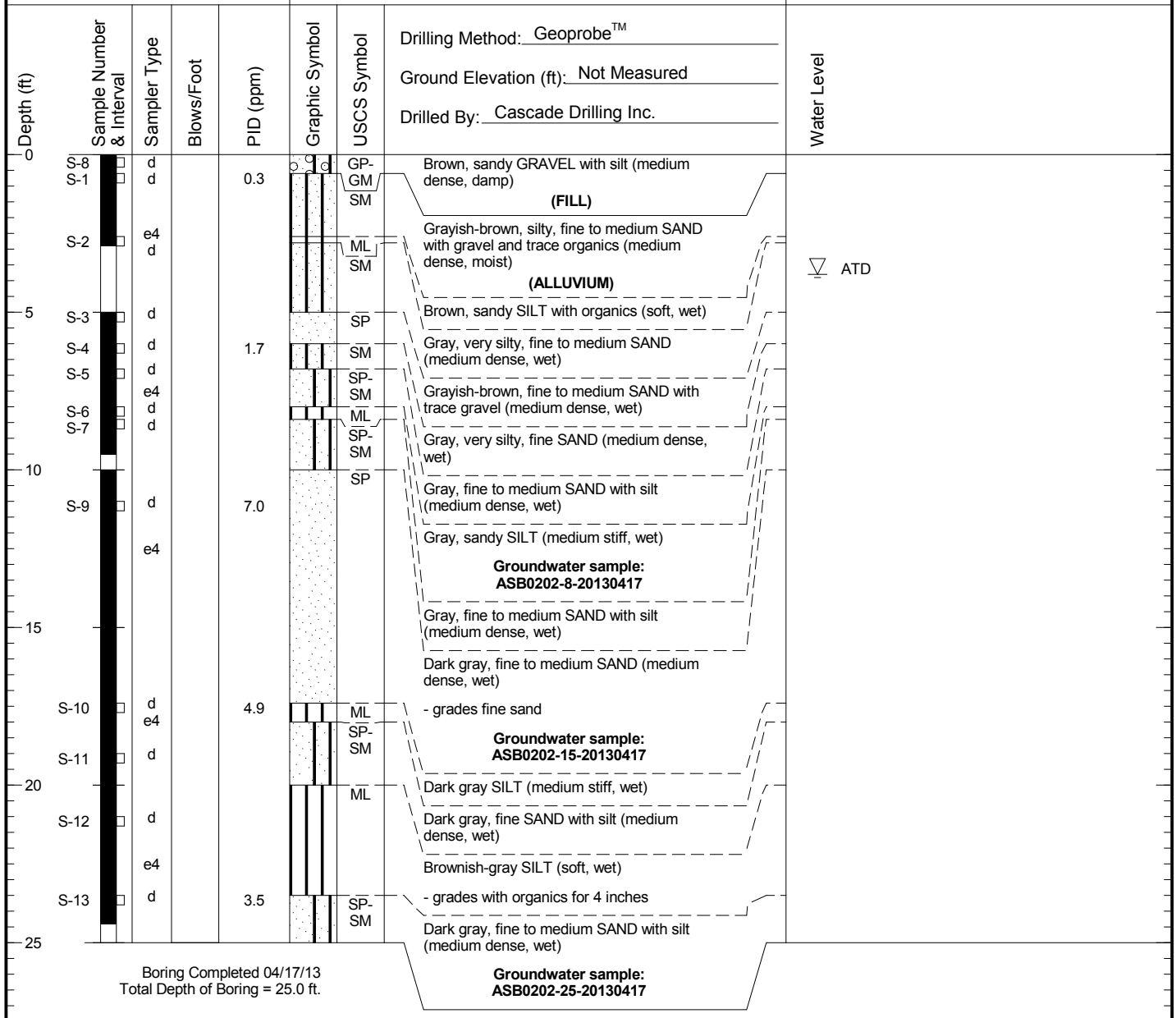
Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0201

Figure
B-82

ASB0202



Boring Completed 04/17/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-7.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0202

Figure
B-83

ASB0203

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0	S-1	d		3.0		AC	Asphalt concrete pavement	
		e4				GP-GM	Brown, sandy GRAVEL with silt (dense, damp) **(FILL)**	
						PT	- grades gray Dark brown PEAT (soft, wet) **(ALLUVIUM)**	ATD
5	S-2	d						
	S-3	d				SM	Brownish-gray, silty, fine to coarse SAND with gravel (medium dense, wet)	
	S-4	d				SP		
	S-5	e4		0.8		ML	Dark gray, fine to medium SAND (medium dense, wet)	
	S-6	d				SM		
	S-7	d				ML	**Groundwater sample: ASB0203-7-20130418**	
10						SP		
	S-8	d		0.2			Brownish-gray SILT (soft, wet)	
		e4					Brownish-gray, silty, fine SAND (medium dense, wet)	
							Brown SILT (medium stiff, wet)	
15							Dark gray, fine to medium SAND (medium dense, wet)	
							Groundwater sample: ASB0203-15-20130418	
		e4						
20								
	S-9	d		62.3				
		e4						
25							**Groundwater sample: ASB0203-25-20130418**	

Boring Completed 04/18/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-1.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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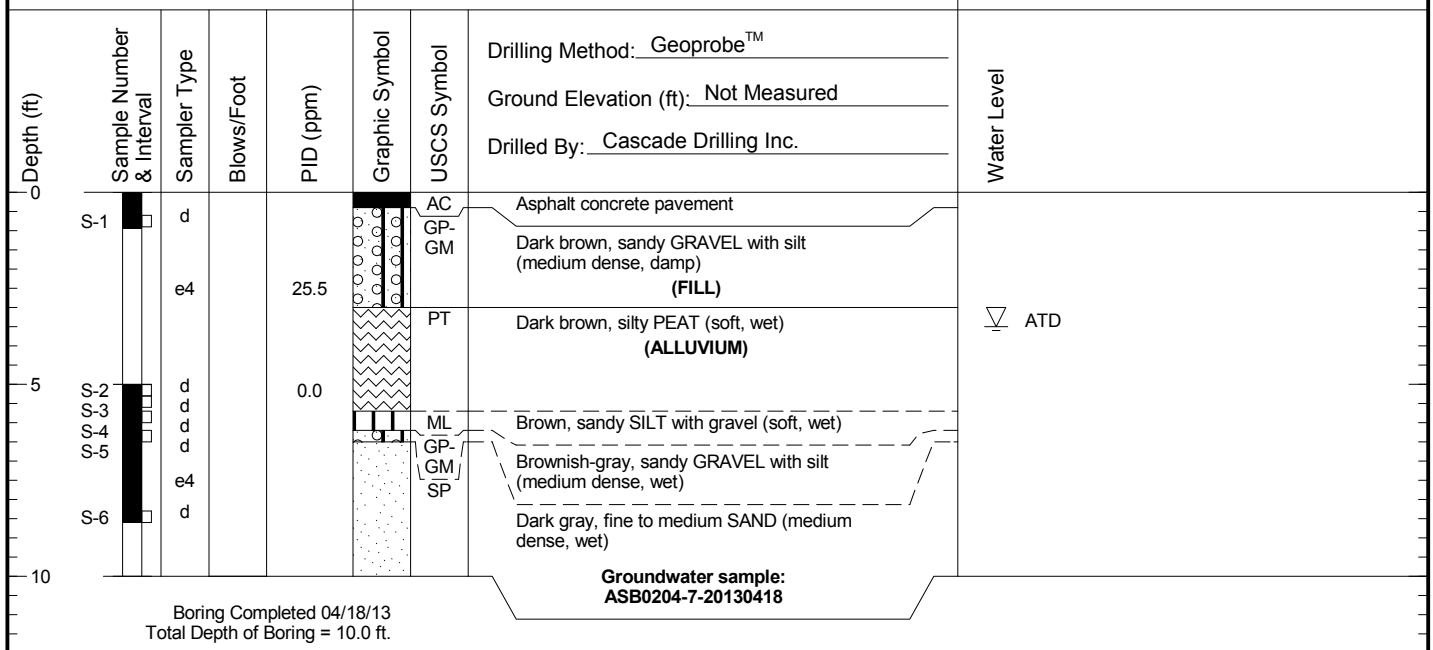
Auburn, Washington

Log of Boring ASB0203

Figure
B-84

ASB0204



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-5.

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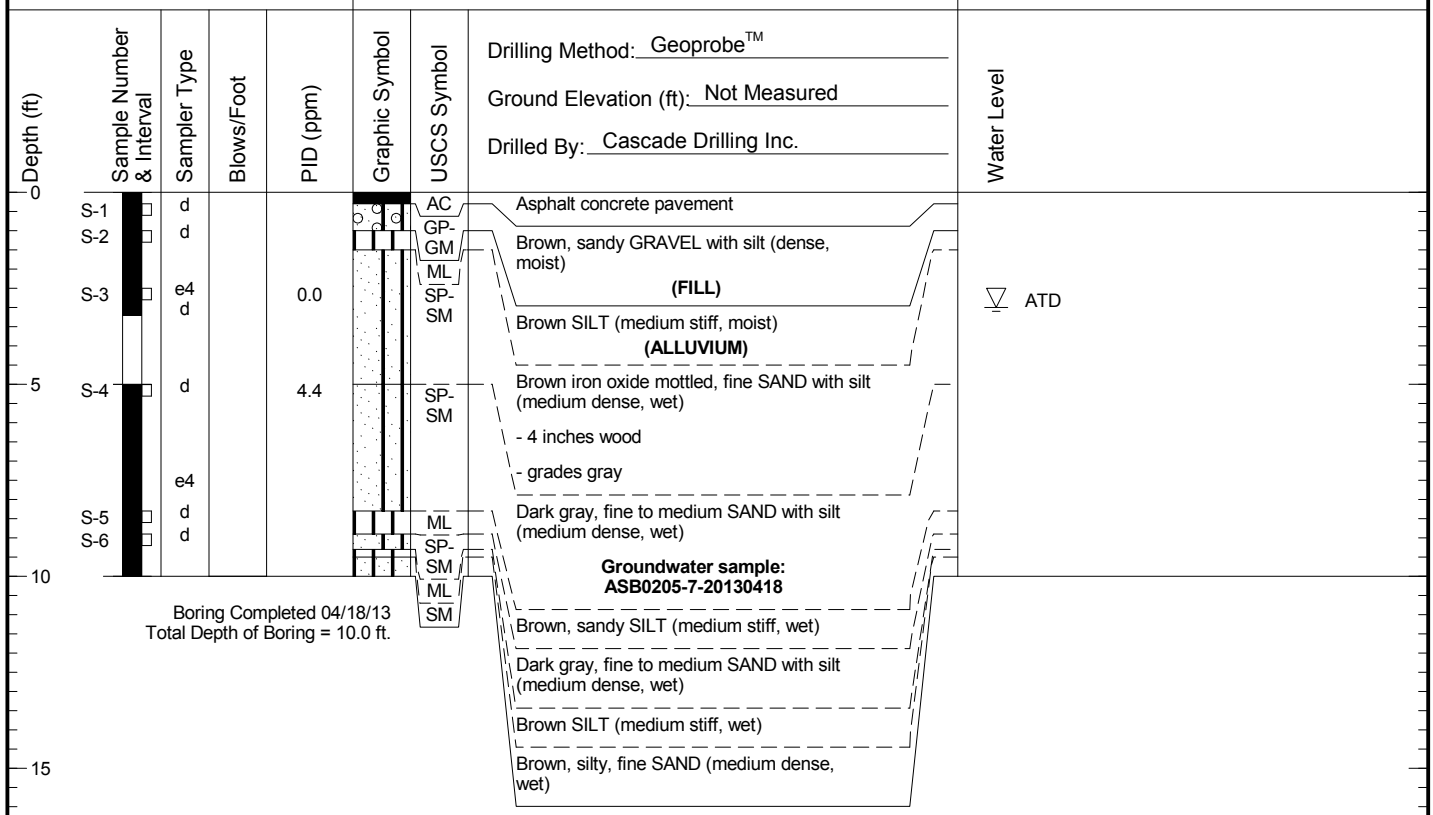
Auburn, Washington

Log of Boring ASB0204

Figure
B-85

ASB0205



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-45.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0205

Figure
B-86

ASB0206

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0	S-1	d		0.0		AC	Asphalt concrete pavement	
						GP	Brown, sandy GRAVEL (dense, moist) **(FILL)**	
		e4				PT	Brown, silty PEAT (very soft, wet) **(ALLUVIUM)**	ATD
5	S-2	d				SM	Brown, silty, fine SAND with organics (medium dense, wet)	
	S-3	d				ML		
	S-4	d		0.0		SP-SM	Brownish-gray SILT (soft, wet)	
	S-5	d					Dark gray, fine to medium SAND with silt (medium dense, wet)	
		e4					**Groundwater sample: ASB0206-7-20130419**	
10	S-6	d		0.0		SP	Dark gray, fine to coarse SAND (medium dense, wet)	
	S-7	d						
	S-8	d				SM	Dark gray, silty, fine to medium SAND (medium dense, wet)	
		e4				SP		
						SM	Dark gray, fine to medium SAND (medium dense, wet)	
15	S-9	d				ML		
	S-10	d		0.0		SP	Dark gray, silty, fine to medium SAND (medium dense, wet)	
	S-11	d				SM	Grayish-brown SILT (medium stiff, wet)	
		e4				SP	**Groundwater sample: ASB0206-15-20130419**	
						ML	Dark gray, fine to medium SAND (medium dense, wet)	
20	S-12	d						
	S-13	d		0.0		SM	Dark gray, silty, fine to medium SAND (medium dense, wet)	
		e4				SP	Dark gray, fine to medium SAND (medium dense, wet)	
	S-14	d					Brownish-gray SILT (soft, wet)	
25							Dark gray, silty, fine to coarse SAND (medium dense, wet)	
							Dark gray, fine to coarse SAND with gravel (medium dense, wet)	
							Groundwater sample: ASB0206-25-20130419	
30								
35								

Boring Completed 04/19/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-16.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0206

Figure
B-87

ASB0207

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0	S-1	d				GP-GM	
	S-2	d				ML	
	S-3	d				SM	
	S-4	e4 d		6.3		ML	ATD
5							
10							
15							
20							
25							
30							
35							

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Brown, sandy GRAVEL with silt (medium dense, wet)

(FILL)

Dark brown SILT with sand and trace gravel (soft, wet)

(ALLUVIUM)

Gray, very silty, fine SAND with organics (medium dense, wet)

Grayish-brown SILT with sand and organics (soft, wet)

Groundwater sample: ASB0207-5-20130419

Boring Completed 04/19/13
Total Depth of Boring = 5.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-26.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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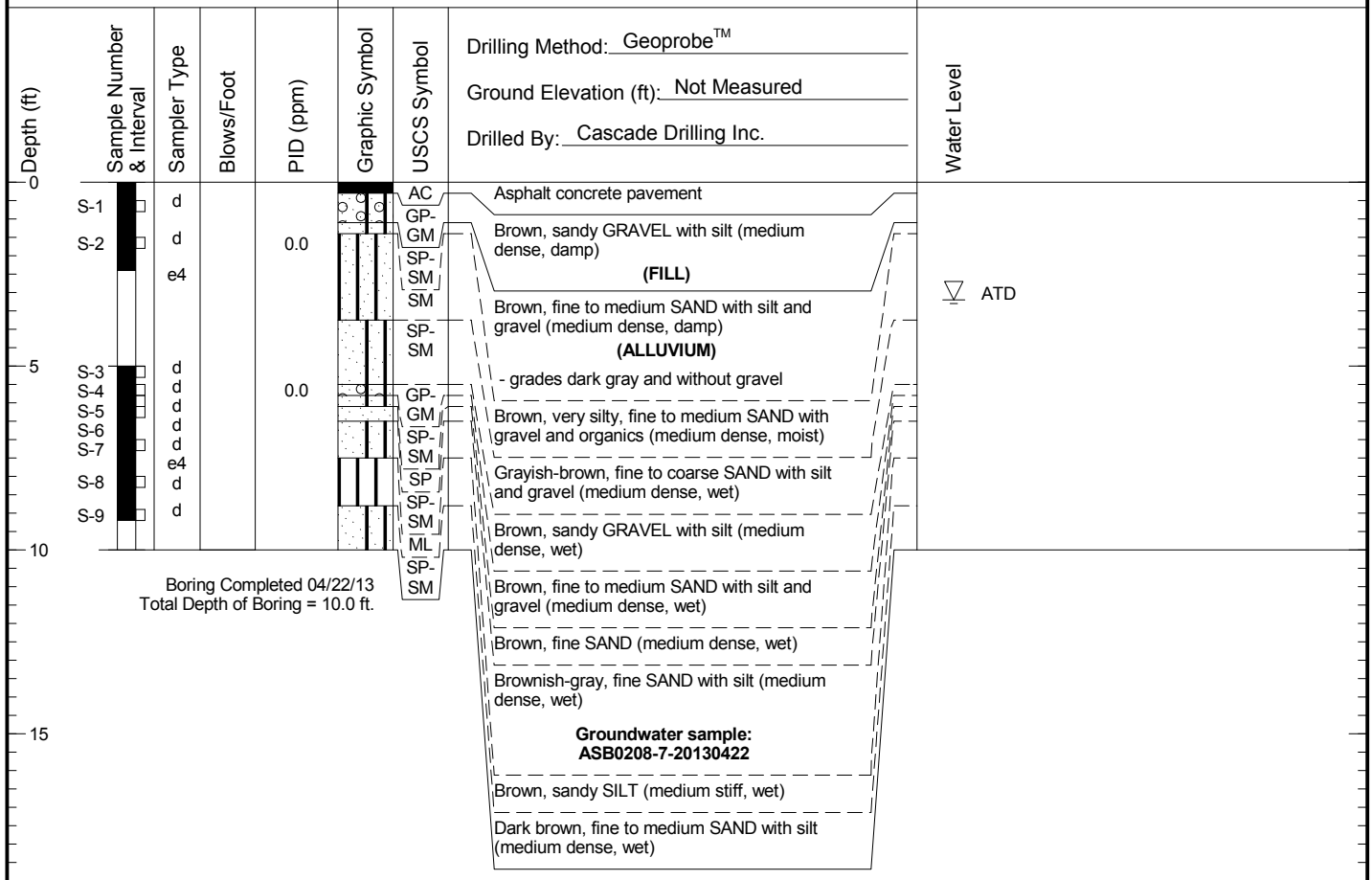
Auburn, Washington

Log of Boring ASB0207

Figure
B-88

ASB0208



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-27.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0208

Figure
B-89

ASB0209

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0	S-1	d				AC	
	S-2	d		6.6		GP-GM	
	S-3	e4				SP	
	S-4	d				SP-SM	ATD
		d				SP-SM	
5						SP	
10							
15							
20							
25							
30							
35							

Drilling Method: Hand Auger

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Asphalt concrete pavement

Gray, sandy GRAVEL with silt (medium dense, moist)

(FILL)

Gray, fine to coarse SAND with gravel (medium dense, moist)

Gray, fine to coarse SAND with gravel and silt (medium dense, wet)

Brown, fine to medium SAND with silt and organics (dense, wet)

(ALLUVIUM)

Dark gray, fine to medium SAND (medium dense, wet)

Groundwater sample: ASB0209-5-20130422

Boring Completed 04/22/13
Total Depth of Boring = 5.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-47.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0209

Figure
B-90

ASB0210

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample	Sampler Type	PID (ppm)	USCS Symbol	Description
0	S-1	d		AC	Asphalt concrete pavement
				GP-GM	Brown, sandy GRAVEL with silt (dense, moist)
	S-2	d		ML	**(FILL)**
	S-3	e4	22.7	SM	Dark gray SILT with sand (medium stiff, wet)
		d			**(ALLUVIUM)**
				SP	Dark gray, silty, fine SAND (medium dense, wet)
5	S-4	d	6.5		
	S-5	d		SP-SM	Brown, fine to coarse SAND with gravel (medium dense, wet)
	S-6	d		SP	Dark gray, fine to medium SAND with silt (medium dense, wet)
		e4			
	S-7	d		ML	
	S-8	d		SP-SM	Dark gray, fine to medium SAND (medium dense, wet)
10				SM	**Groundwater sample: ASB0210-8-20130422**
	S-9	d			
	S-10	d	1.3	SP	Grayish-brown SILT with sand (soft, wet)
		e4			Dark gray, fine to medium SAND with silt (medium dense, wet)
15					Dark gray, silty, fine to medium SAND (medium dense, wet)
	S-11	d	1.0		Dark gray, fine SAND with organics (medium dense, wet)
		e4			- grades without organics
					Groundwater sample: ASB0210-15-20130422
20	S-12	d	0.0		
		e4			
	S-13	d		GP	Dark gray GRAVEL with sand (medium dense, wet)
25					**Groundwater sample: ASB0210-25-20130422**
30					
35					

ATD

Boring Completed 04/22/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-41.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0210

Figure
B-91

ASB0211

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	PID (ppm)	USCS Symbol	Soil Profile
0	S-1	d		AC	Asphalt concrete pavement
	S-2	d		GM	
	S-3	d	0.0	ML	Brown, silty, sandy GRAVEL (medium dense, moist) **(FILL)**
	S-4	d, e4		SM, ML	
	S-5	d		SP-SM	Brown SILT with organics (medium stiff, wet) **(ALLUVIUM)**
	S-6	d		SM	
5	S-7	d		SM, SP-SM	Gray, silty, fine SAND (medium dense, moist)
	S-8	d	1.2	SP, SM	Brown SILT (medium stiff, wet)
	S-9	e4, d		SP/ML	Brown, fine SAND with silt (medium dense, wet)
	S-10	d		SP	Brownish-gray, silty, fine SAND (medium dense, wet)
10					Brown, fine SAND with silt (medium dense, wet)
	S-11	d, e4	3.1	SM	Dark gray, fine to coarse SAND (medium dense, wet) **Groundwater sample: ASB0211-5-20130423**
15	S-12	d		SP-SM	Dark grayish-brown, silty, fine SAND (medium dense, wet) - grades very silty
	S-13	d			
	S-14	e4, d	0.2	SP	Dark gray, fine to medium SAND and grayish-brown SILT (medium dense/very stiff, wet)
	S-15	d		SP-SM	
20	S-16	d	0.0	SM, SP	Dark gray, fine SAND (medium dense, wet)
					Grayish-brown, silty, fine SAND (medium dense, wet)
	S-17	d, e4		GP	Dark grayish-brown, fine SAND with silt (medium dense, wet) **Groundwater sample: ASB0211-15-20130423**
25					Dark gray, fine to medium SAND (medium dense, wet)
					Dark gray, fine to medium SAND with silt (medium dense, wet)
					Dark gray, fine to medium SAND (medium dense, wet)
30					Dark gray GRAVEL with sand (medium dense, wet) **Groundwater sample: ASB0211-25-20130423**
35					

Water Level: ▽ ATD

Boring Completed 04/23/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-42.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0211

Figure
B-92

ASB0212

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
	S-1	d				GP-GM	Gray, sandy GRAVEL with silt (medium dense, damp)	ATD
	S-2	d		0.0		SM	**(FILL)**	
	S-3	e4				SP-SM	Gray, very silty, fine SAND with gravel (medium dense, wet)	
	S-4	d				ML	**(ALLUVIUM)**	
	S-5	d				SM	Dark gray, fine to medium SAND with silt (medium dense, wet)	
5							Grayish-brown SILT with sand (medium stiff, wet)	
							- grades with PEAT interbeds	
							Dark gray, silty, fine SAND (medium dense, wet)	
10							**Groundwater sample: ASB0212-5-20130423**	
15								
20								
25								
30								
35								

Boring Completed 04/23/13
Total Depth of Boring = 5.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-43.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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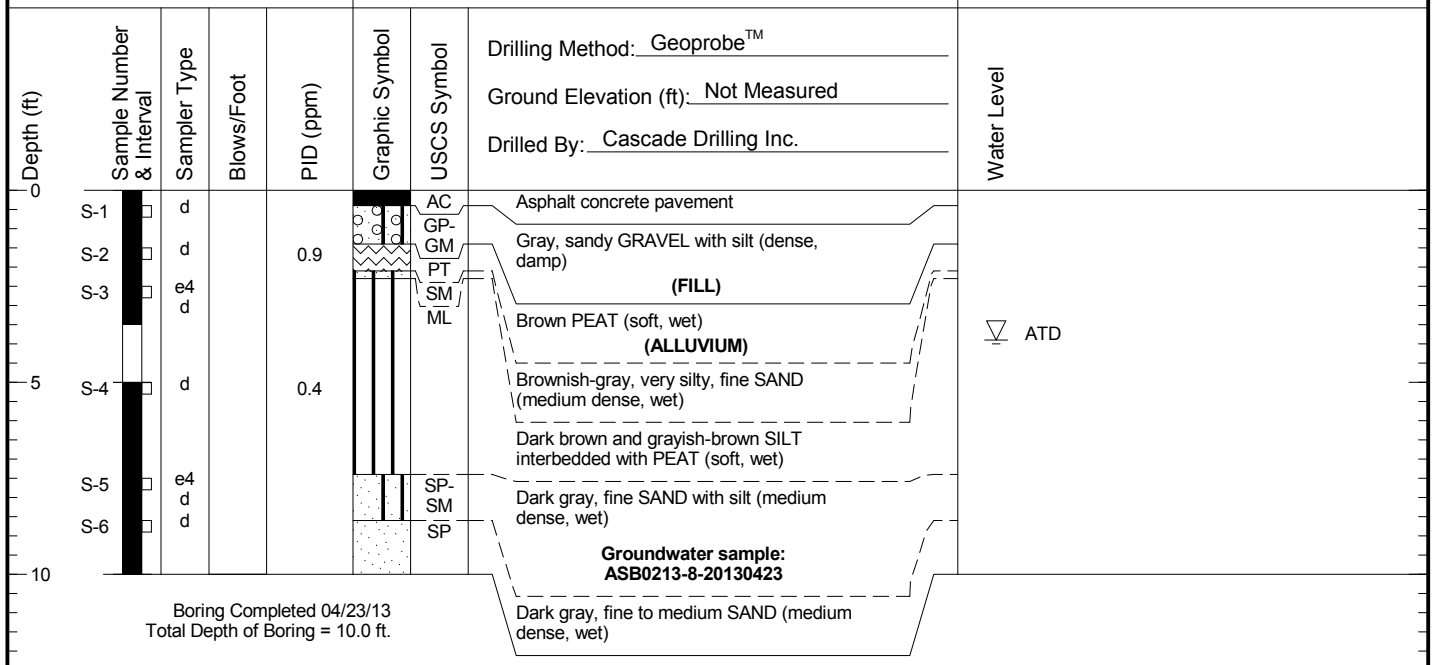
Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0212

Figure
B-93

ASB0213



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-48.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0213

Figure
B-94

ASB0214

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0	S-1	d				AC	
	S-2	d		0.0		GP-GM	
	S-3	d e4				ML SP-SM	ATD
5							
10							
15							
20							
25							
30							
35							

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Asphalt concrete pavement

Brown, very sandy GRAVEL with silt (medium dense, damp)
(FILL)

Dark brown SILT (medium stiff, wet)
(ALLUVIUM)

Grayish-brown, fine SAND with silt (medium dense, wet)

Boring Completed 04/24/13
Total Depth of Boring = 5.0 ft.

Groundwater sample: ASB0214-5-20130424

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-37.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0214

Figure
B-95

ASB0215

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0	S-1	d				AC	Asphalt concrete pavement	
	S-2	d				GP-GM	Grayish-brown, sandy GRAVEL with silt (medium dense, damp)	
	S-3	e4 d		3.9		SP-SM	**(FILL)**	
							Grayish-brown, fine to medium SAND with silt (medium dense, damp) **(ALLUVIUM)**	ATD
5	S-4	d						
	S-5	d e4				ML	Dark gray iron oxide mottled SILT (medium stiff, wet)	
						SP	**Groundwater sample: ASB0215-7-20130424**	
	S-6	d		2.8				
10	S-7 S-8	d d		0.3		SM SP	Dark gray, fine to medium SAND (medium dense, wet)	
		e4					Dark gray, very silty, fine SAND (medium dense, wet) - Driller reports heave while drilling	
							Dark gray, fine to medium SAND (medium dense, wet)	
15	S-9	d					**Groundwater sample: ASB0215-15-20130424**	
	S-10	d e4		0.1		GP	Dark gray GRAVEL with sand (medium dense, wet)	
20	S-11	d		0.1		SP	Dark gray, fine to medium SAND (medium dense, wet)	
		e4				GP	Dark gray GRAVEL with sand (medium dense, wet)	
	S-12	d						
25							**Groundwater sample: ASB0215-25-20130424**	
30								
35								

Boring Completed 04/24/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-46.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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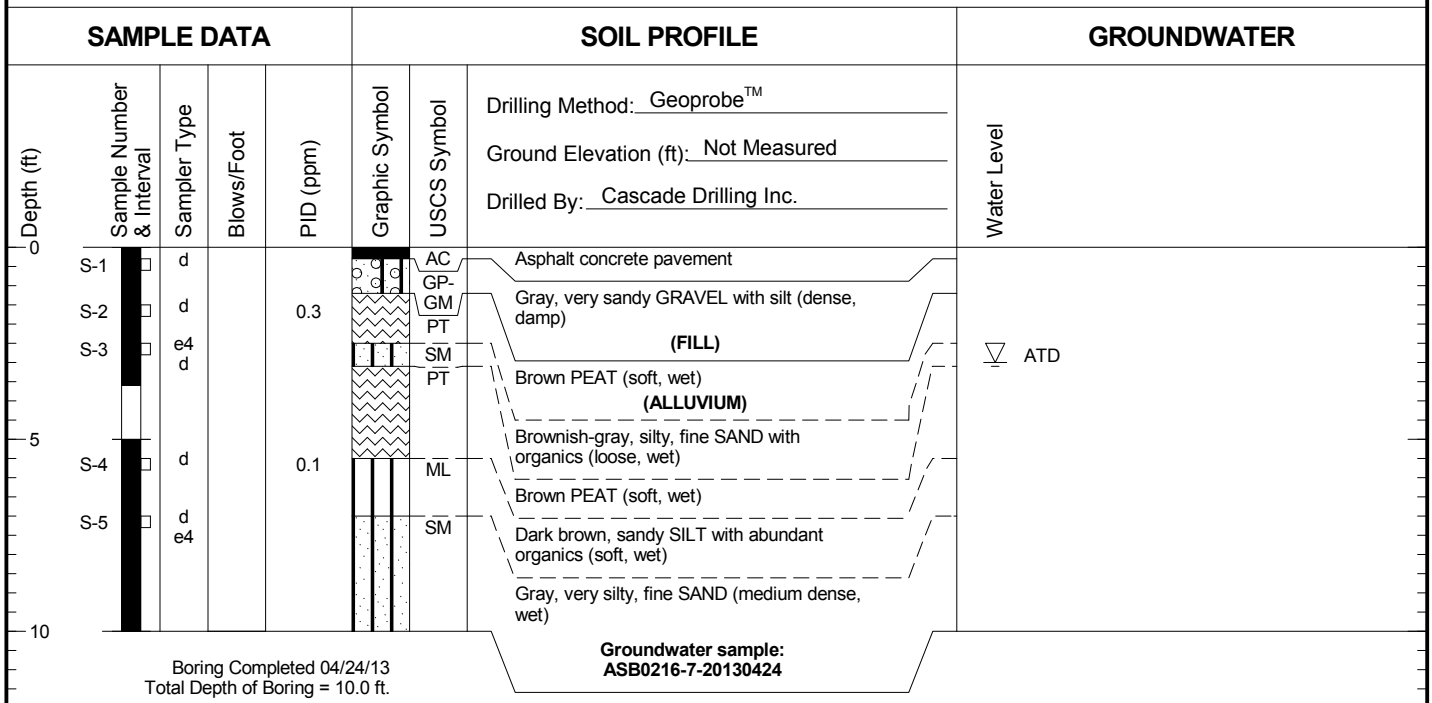
Auburn, Washington

Log of Boring ASB0215

Figure
B-96

ASB0216



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-49.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0216

Figure
B-97

ASB0217

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0	S-1	d				AC	Asphalt concrete pavement	
						GP-GM	Brown, sandy GRAVEL with silt (dense, damp)	
	S-2	d		0.5		PT	**(FILL)**	
	S-3	e4 d				SP-SM	Brown, silty PEAT (soft, wet) **(ALLUVIUM)**	ATD
5	S-4	d				SP-SM	Gray, fine to medium SAND with silt (medium dense, wet)	
	S-5	d		0.2		SP	Brown, fine to coarse SAND with gravel and silt (medium dense, wet)	
	S-6	d				ML		
		e4				SM	Dark gray, fine to medium SAND (medium dense, wet)	
						ML SM	Gray SILT (medium stiff, wet)	
10							Gray, very silty, fine SAND (medium dense, wet)	
							Groundwater sample: ASB0217-8-20130425	
							Gray SILT (medium stiff, wet)	
15							Gray, very silty, fine SAND (medium dense, wet)	
20								
25								
30								
35								

Boring Completed 04/25/13
Total Depth of Boring = 10.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-12.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0217

Figure
B-98

ASB0218

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	SOIL PROFILE	Water Level
							Drilling Method: Geoprobe™	
							Ground Elevation (ft): Not Measured	
							Drilled By: Cascade Drilling Inc.	
0	S-1	d		0.2		AC	Asphalt concrete pavement	
						GP-GM	Brown, sandy GRAVEL with silt (dense, damp)	
	S-2	d				PT	**(FILL)**	
		e4						
	S-3	d				ML	Brown PEAT (very soft, wet)	
							(ALLUVIUM)	
5	S-4	d				PT	Brownish-gray, sandy SILT with organics (medium stiff, wet)	ATD
	S-5	d				SP-SM/ML	Dark brown PEAT (soft, wet)	
	S-6	d		1.5			Brownish-gray, fine to coarse SAND with silt (medium dense, wet)	
		e4						
	S-7	d					Gray SILT with organics (soft, wet)	
	S-8	d				SM	- grades with sand and abundant organics	
10	S-9	d				SM		
	S-10	d						
	S-11	d		0.2		ML/SP-SM	Gray, very silty, fine SAND (medium dense, wet)	
	S-12	e4				SM	Brownish-gray, very silty, fine to medium SAND with gravel (medium dense, wet)	
		d					**Groundwater sample: ASB0218-10-20130425**	
15						SP	Brownish-gray SILT (soft, wet)	
	S-13	d		0.0			Brownish-gray, fine SAND with silt (medium dense, wet)	
		e4					Brownish-gray, silty, fine SAND (medium dense, wet)	
20	S-14	d					Dark gray, fine to medium SAND with trace wood fragments (medium dense, wet)	
	S-15	d		0.3		ML	**Groundwater sample: ASB0218-15-20130425**	
	S-16	d				SM		
		e4					Brownish-gray SILT (medium stiff, wet)	
						ML	Brownish-gray, silty, fine SAND (medium dense, wet)	
	S-17	d				SP-SM		
25						SP	Brownish-gray SILT (medium stiff, wet)	
							Brownish-gray, fine to medium SAND with silt (medium dense, wet)	
							Dark gray, fine to medium SAND (medium dense, wet)	
							Groundwater sample: ASB0218-25-20130425	
30								
35								

Boring Completed 04/25/13
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-22.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0218

Figure
B-99

ASB0219

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						AC	Asphalt concrete pavement
	S-1	d		0.3		GP-GM	Brown, sandy GRAVEL with silt (medium dense, damp)
		e4					**(FILL)**
						SP	Brown, fine to coarse SAND with gravel (dense, moist)
5	S-2	d					ATD
	S-3	d				ML	Brown, sandy SILT (stiff, wet)
							(ALLUVIUM)
							- grades gray
	S-4	e4 d		0.3		SM	Brownish-gray, silty, fine SAND (medium dense, wet)
10							**Groundwater sample: ASB0219-9-20130425**

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Boring Completed 04/25/13
Total Depth of Boring = 10.0 ft.

15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-32.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0219

Figure
B-100

ASB0220

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0	S-1	d				AC	Asphalt concrete pavement	
	S-2	d				GP-GM	Brown, sandy GRAVEL with silt (dense, moist)	
	S-3	e4		0.4		PT	**(FILL)**	ATD
	S-4	d				SM		
		d				ML	- grades gray	
5							Brown PEAT (soft, wet) **(ALLUVIUM)**	
							Gray, silty, fine SAND (medium dense, wet)	
							Grayish-brown SILT with organics (soft, wet)	
10							**Groundwater sample: ASB0220-5-20130426**	
15								
20								
25								
30								
35								

Boring Completed 04/26/13
Total Depth of Boring = 5.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-13.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0220

Figure
B-101

ASB0221

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0	S-1	d				AC	Asphalt concrete pavement	
						GP		
	S-2	d				PT	Brown, sandy GRAVEL (medium dense, damp)	
							(FILL)	
	S-3	e4				SM		ATD
		d		1.5			Dark brown PEAT with silt (very soft, wet)	
							(ALLUVIUM)	
5						SM		
	S-4	d					Gray, silty, fine to medium SAND (medium dense, wet)	
	S-5	d		0.5		SM		
	S-6	d				SM	Dark brown, very silty, fine SAND with abundant organics (medium dense, wet)	
	S-7	d				SP-SM		
		e4					Grayish-brown, silty, fine to medium SAND (medium dense, wet)	
	S-8	d				SM		
	S-9	d				SP	- grades with gravel and organics	
10							Grayish-brown, very silty, fine to medium SAND (medium dense, wet)	
							Dark gray, fine to medium SAND with silt (medium dense, wet)	
							Groundwater sample: ASB0221-7-20130426	
15							Grayish-brown, very silty, fine SAND (medium dense, wet)	
							Dark gray, fine to medium SAND (medium dense, wet)	
20								
25								
30								
35								

Boring Completed 04/26/13
Total Depth of Boring = 10.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-23.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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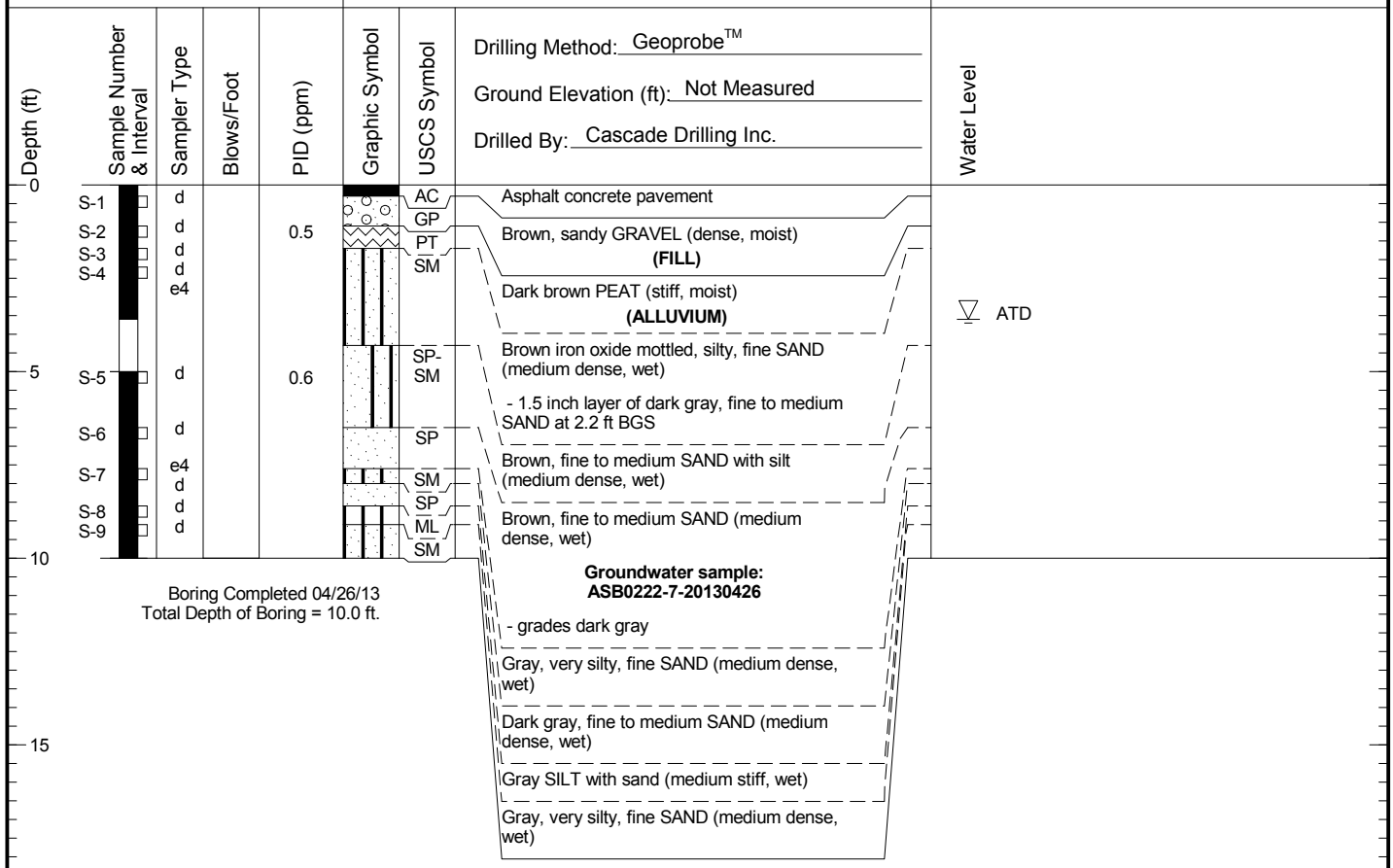
Auburn, Washington

Log of Boring ASB0221

Figure
B-102

ASB0222



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-33.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0222

Figure
B-103

ASB0223

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0	S-1	d				AC	Asphalt concrete pavement	
	S-2	d		0.0		GP-GM	Brown, sandy GRAVEL with silt (medium dense, damp)	
	S-3	d				PT		
	S-4	e4 d				SM	**(FILL)**	
						ML	Dark brown PEAT (very soft, wet)	▽ ATD
						PT	**(ALLUVIUM)**	
5	S-5	d					Gray, very silty, fine SAND (medium dense, wet)	
	S-6	d				ML	Gray SILT (medium stiff, wet)	
	S-7	e4 d		0.0		SP	Dark brown, silty PEAT (soft, wet)	
							Gray SILT (medium stiff, wet)	
10							Dark gray, fine to medium SAND (medium dense, wet)	

Boring Completed 04/29/13
Total Depth of Boring = 10.0 ft.

Groundwater sample: ASB0223-8-20130429

15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-15.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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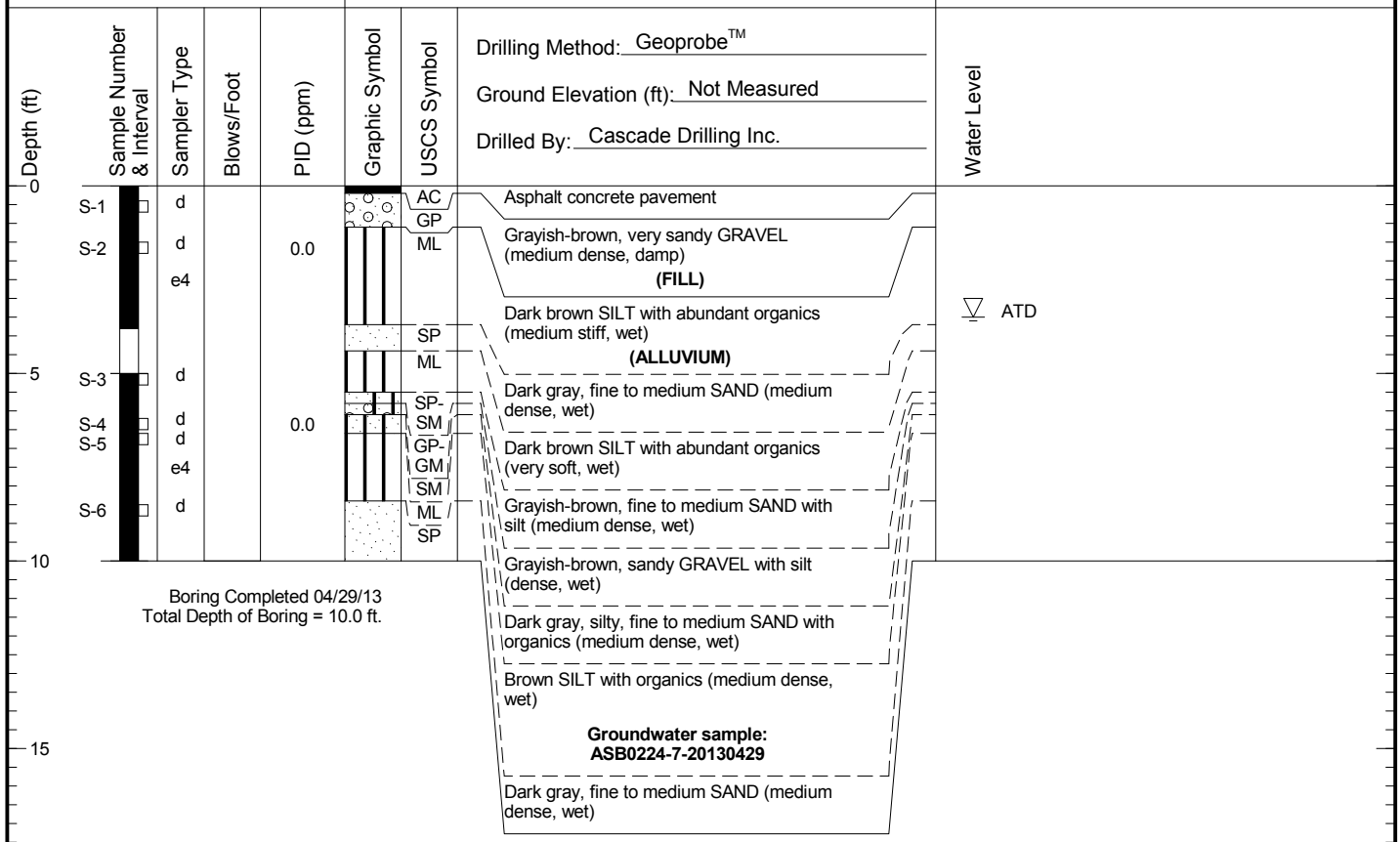
Auburn, Washington

Log of Boring ASB0223

Figure
B-104

ASB0224



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-25.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

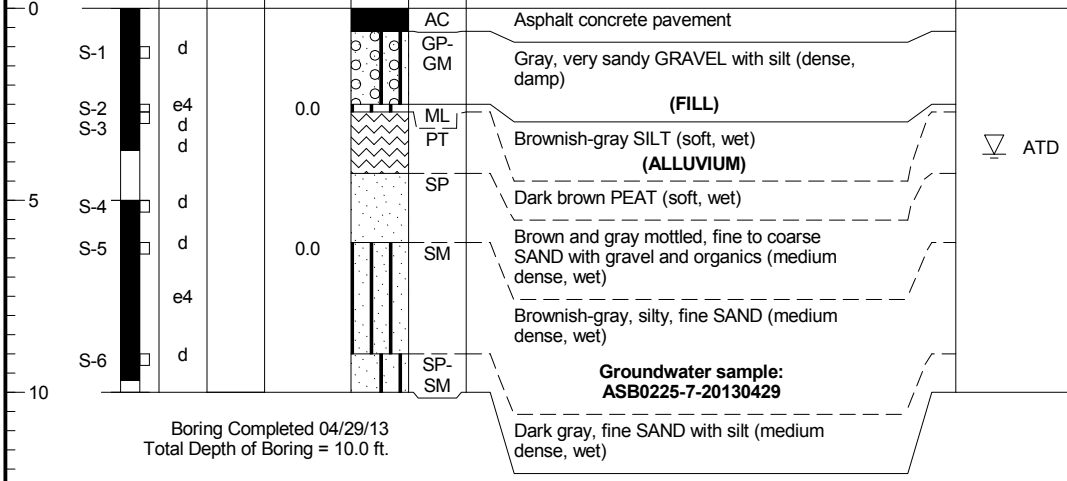
Log of Boring ASB0224

Figure
B-105

ASB0225

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.



0 – Asphalt concrete pavement

S-1 (d), S-2 (e4), S-3 (d, d) — Gray, very sandy GRAVEL with silt (dense, damp) **(FILL)**

PID 0.0

ML / PT — Brownish-gray SILT (soft, wet) **(ALLUVIUM)**

SP — Dark brown PEAT (soft, wet)

5

S-4 (d), S-5 (d, e4) — Brown and gray mottled, fine to coarse SAND with gravel and organics (medium dense, wet)

PID 0.0

SM — Brownish-gray, silty, fine SAND (medium dense, wet)

S-6 (d)

SP-SM — **Groundwater sample: ASB0225-7-20130429**

10 — Dark gray, fine SAND with silt (medium dense, wet)

Boring Completed 04/29/13
Total Depth of Boring = 10.0 ft.

15

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-4.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0225

Figure
B-106

ASB0226

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0	S-1	d		0.1		SP-SM	
		e4					
5		e4					ATD
10							

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Brownish-gray, very gravelly, fine to coarse SAND with silt (medium dense, moist)

See log for AGW227 for lithology due to poor recovery

Groundwater sample: ASB0226-9-20130429

Boring Completed 04/29/13
Total Depth of Boring = 10.0 ft.

15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-2.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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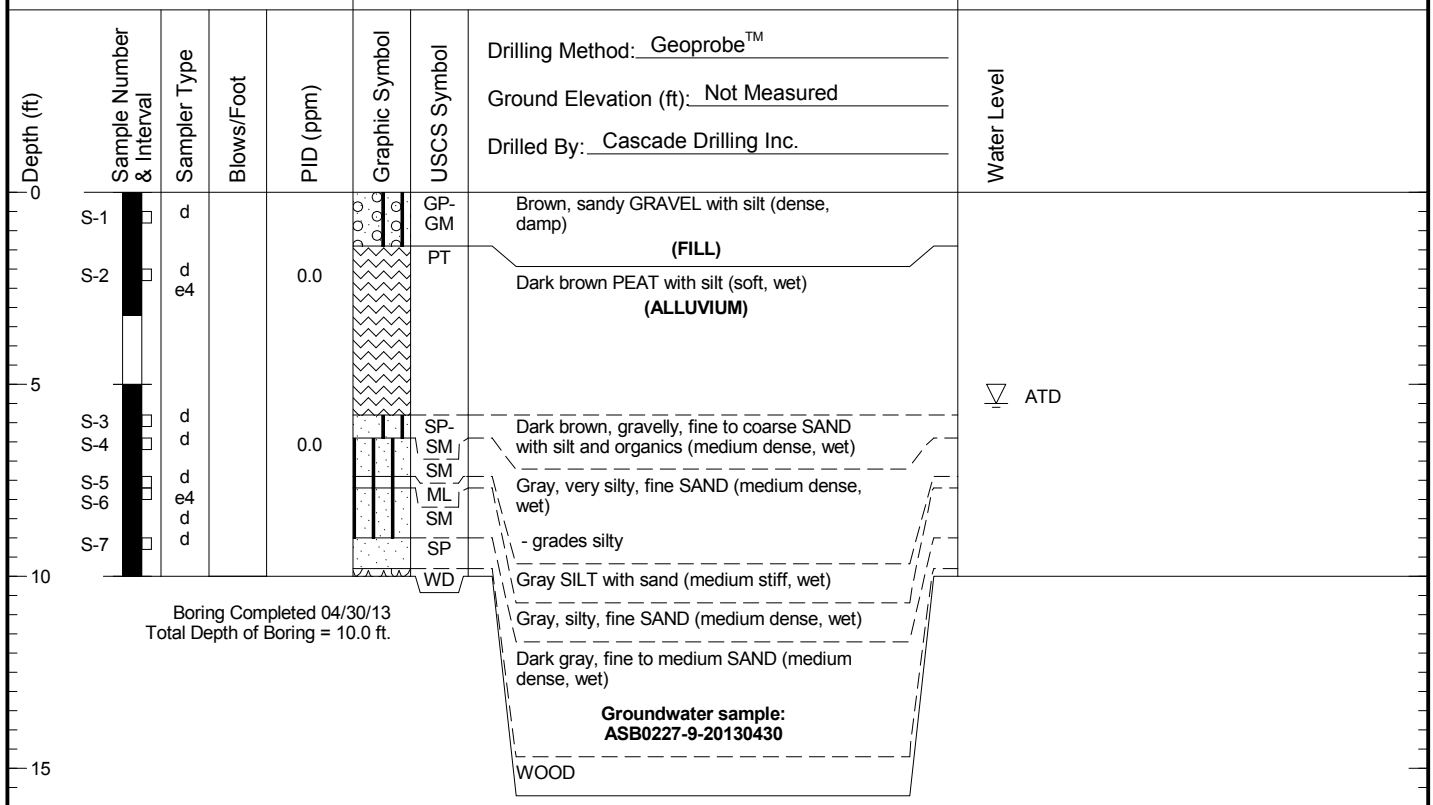
Auburn, Washington

Log of Boring ASB0226

Figure
B-107

ASB0227



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-35.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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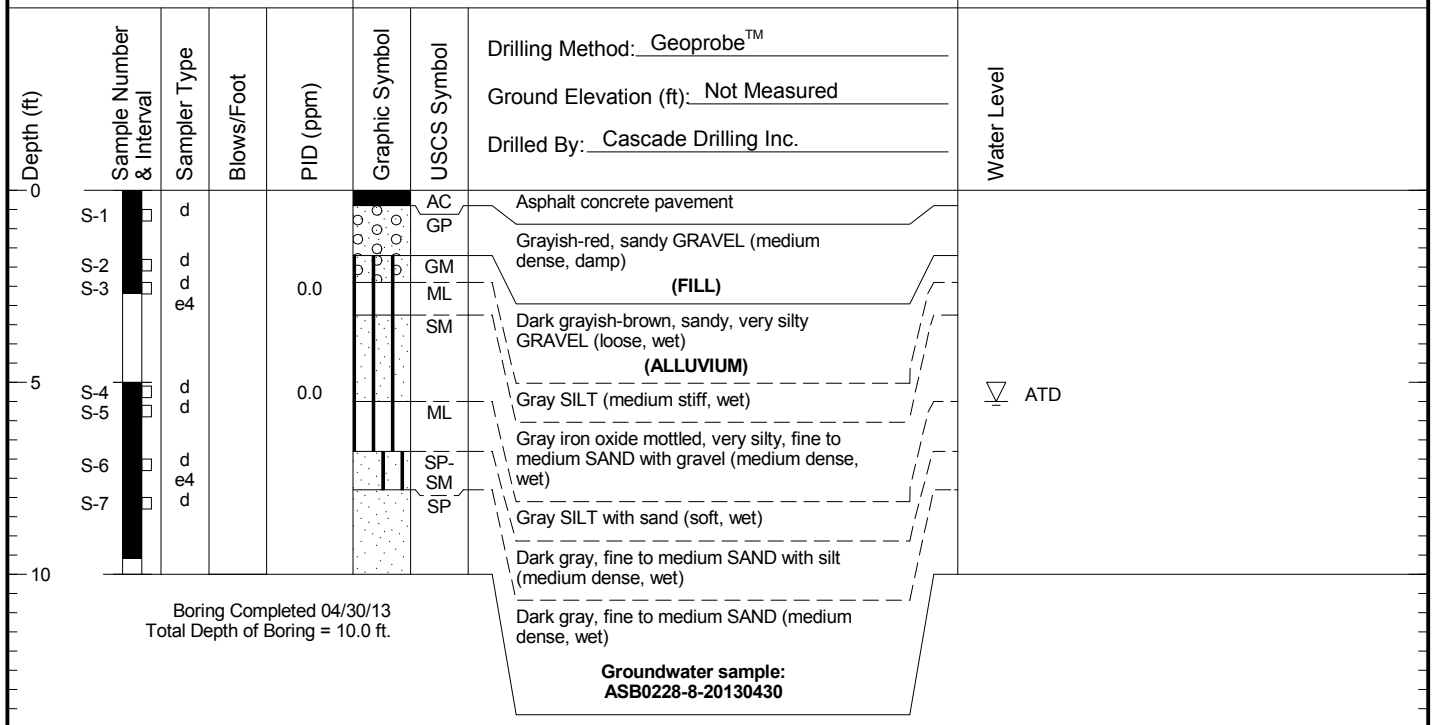
Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0227

Figure
B-108

ASB0228



Boring Completed 04/30/13
Total Depth of Boring = 10.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-36.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0228

Figure
B-109

ASB0229

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0	S-1	d				GP-GM	Brown, sandy GRAVEL with silt (medium dense, damp)	
	S-2	d				GM	**(FILL)**	
	S-3	d		0.0		GM		
	S-4	d				ML		
	S-5	d				SM	Brown, silty, sandy GRAVEL (medium dense, damp)	ATD
		e4				SP	Gray and brown mottled, sandy SILT with organics (very soft, wet)	
5	S-6	d				SP-SM	**(ALLUVIUM)**	
	S-7	d		0.0		SM	Gray, silty, fine SAND (medium dense, wet)	
		e4					Gray, fine to medium SAND (medium dense, wet)	
	S-8	d				ML		
	S-9	d				PT	Gray, fine to medium SAND with silt (medium dense, wet)	
10						ML	Brown, very silty, fine SAND (medium dense, wet)	
							Groundwater sample: ASB0229-7-20130430	
							Brownish-gray SILT with organics (stiff, wet)	
15							Dark brown PEAT (soft, wet)	
							Grayish-brown SILT with sand and organics (soft, wet)	
20								
25								
30								
35								

Boring Completed 04/30/13
Total Depth of Boring = 10.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-44.

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0229

Figure
B-110

ASB0230

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
						SP	Brown, gravelly, fine to course SAND (medium dense, damp)	
		e4				SM	**(FILL)**	
							Grayish-brown, silty, fine SAND with wood fragments (medium dense, moist)	ATD
5							**(ALLUVIUM)**	
							- grades brown, wet, fine to course SAND with organics	
						SP	- grades grayish-brown, very silty, fine SAND without organics	
		e4				ML	Dark gray, fine to medium SAND (medium dense, wet)	
						SM	**Groundwater sample: ASB0230-7-20140623**	
10						SP-SM	Gray, sandy SILT (medium stiff, wet)	
		e4					Gray, silty, fine to medium SAND (medium dense, wet)	
						GP	- grades dark gray, very silty	
							Dark gray, fine to medium SAND with silt (medium dense, wet)	
15						SM	Dark gray, very sandy GRAVEL (medium dense, wet)	
		e4				SP	**Groundwater sample: ASB0230-15-20140623**	
							Dark gray, silty, fine to medium SAND (medium dense, wet)	
20						GP	Dark gray, fine to medium SAND	
						SP	- grades gravelly	
		e4				GP	Dark gray, very sandy GRAVEL (medium dense, wet)	
							Dark gray, fine to medium SAND (medium dense, wet)	
25							Dark gray, very sandy GRAVEL (medium dense, wet)	
		e4				SP-SM	- grades sandy	
						GP	**Groundwater sample: ASB0230-25-20140623**	
30						SP	Dark gray, fine to medium SAND with silt (medium dense, wet)	
		e4				GP	Dark gray, sandy GRAVEL (medium dense, wet)	
							Dark gray, fine to medium SAND (medium dense, wet)	
35						SP	- grades gravelly, fine to course SAND	

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-1

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0230

Figure
B-111
(1 of 2)

ASB0230

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
35						SP	Dark gray GRAVEL (medium dense, wet)	
							Dark gray, gravelly, fine to course SAND (medium dense, wet)	
		e4					- grades very silty, without gravel, fine SAND	
							- grades without silt, fine to medium SAND	
						GP	- grades fine SAND, with silt	
40						SP	Dark gray, very sandy GRAVEL (medium dense, wet)	
							Dark gray, fine to course SAND (medium dense, wet)	
		e4				GP	- grades fine to medium SAND	
							- grades fine to course SAND	
						SP	Dark gray GRAVEL with sand (medium dense, wet)	
45						ML		
						SM	Dark gray, fine to medium SAND (medium dense, wet)	
		e4				SP	Gray, sandy SILT with organics (stiff, wet)	
							Gray, silty, fine SAND (medium dense, wet)	
50							Dark gray, fine to medium SAND (medium dense, wet)	

Boring Completed 06/23/14
Total Depth of Boring = 50.0 ft.

Groundwater sample: ASB0230-48-20140623

55

60

65

70

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-1

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0230

Figure
B-111
(2 of 2)

ASB0231

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
						SP	Dark gray, gravelly, fine to course SAND (medium dense, moist)	
		e4				GP	**(FILL)**	
						SM	Gray GRAVEL (pea gravel) (loose, moist)	ATD
5							Brown, very silty, fine SAND (medium dense, wet) **(ALLUVIUM)**	
						SP	- grades with organics	
		e4					**Groundwater sample: ASB0231-6-20140624**	
							Gray, fine SAND (medium dense, wet)	
10							- grades dark gray, fine to course SAND	
							- grades fine to medium SAND	
		e4				SM	Dark gray, very silty, fine SAND (medium dense, wet)	
						SP-SM		
						SP	Dark gray, fine to medium SAND with silt (medium dense, wet)	
15							Dark gray, fine to medium SAND (medium dense, wet)	
							Groundwater sample: ASB0231-15-20140624	
		e4				GP	Gray GRAVEL (medium dense, wet)	
						SP	Dark gray, fine to medium SAND (medium dense, wet)	
20								
		e4					- grades fine to course SAND	
						GP	Dark gray GRAVEL (medium dense, wet)	
						SP	Dark gray, fine to medium SAND (medium dense, wet)	
25						GP		
							Dark gray, sandy GRAVEL (medium dense, wet)	
							Groundwater sample: ASB0231-25-20140624	
30								
35								

Boring Completed 06/24/14
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-2

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0231

Figure
B-112

ASB0232

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
						SP	Brown, fine to course SAND with gravel (medium dense, moist)	
		e4				ML	**(FILL)**	
						SP		
						SM	Brown, sandy SILT with abundant organics (medium stiff, moist)	ATD
						SP	**(ALLUVIUM)**	
5							Brown, fine SAND (medium dense, wet)	
							Brown, very silty, fine SAND (medium dense, wet)	
		e4				SM	Dark gray, fine to medium SAND (medium dense, wet)	
							Dark gray, very silty, fine SAND (medium dense, wet)	
10						SP		
						SM	**Groundwater sample: ASB0232-7-20140624**	
						SP		
		e4					Dark gray, fine to medium SAND (medium dense, wet)	
							Dark gray, very silty, fine SAND (medium dense, wet)	
15						SP-		
						SM	Dark gray, fine to medium SAND (medium dense, wet)	
						SP		
		e4					Dark gray, fine SAND with silt (medium dense, wet)	
							Dark gray, fine to medium SAND (medium dense, wet)	
20							**Groundwater sample: ASB0232-15-20140624**	
							- grades fine to course SAND	
		e4					- grades with gravel	
25							**Groundwater sample: ASB0232-25-20140624**	
30								
35								

Boring Completed 06/24/14
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-3

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0232

Figure
B-113

ASB0233

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						AC	Asphalt concrete pavement	
						GP	Grayish-brown, sandy GRAVEL (medium dense, damp) **(FILL)**	
2		e4						
4							- grades moist	
6	S-1	d				PT	Dark brown PEAT with silt (soft to medium stiff, moist)	▽ ATD
	S-2	d				SM	**(ALLUVIUM)**	
						SP	Grayish-brown, silty, fine SAND with organics (medium dense, wet)	
	S-3	d e4				SP-SM	Dark gray, fine to medium SAND (medium dense, wet)	
8	S-4	d				SM	Brown, fine to medium SAND with silt and organics (medium dense, wet)	
	S-5	d				SP-SM	Brown, very silty, fine SAND (medium dense, wet)	
10	S-6	d				SM		
	S-7	d				SP-SM	**Groundwater sample: ASB0233-9-20140625**	
	S-8	d				SP	Dark gray, fine SAND with silt (medium dense, wet)	
12	S-9	d				SM		
	S-10	e4 d					Brown, silty, fine to medium SAND (medium dense, wet)	
							Brown, fine to medium SAND with silt (loose, wet)	
14							Dark gray, fine to course SAND (medium dense, wet)	
	S-11	d					Gray, silty, fine SAND (medium dense, wet)	
						SM	- grades dark gray	
16						SP-SM	**Groundwater sample: ASB0233-15-20140625**	
	S-12	d e4				SM	Dark gray, very silty, fine SAND (medium dense, wet)	
18						SP-SM	Dark gray, fine SAND with silt (medium dense, wet)	
	S-13	d				SP	Dark gray, very silty, fine SAND (medium dense, wet)	
20	S-14	d					Dark grayish-brown, fine SAND with silt (medium dense, wet)	

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-4

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Auburn, Washington

Log of Boring ASB0233

Figure
B-114
(1 of 3)

ASB0233

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample	Sampler Type	USCS	Description
22	S-15	d	GP	- grades fine to medium SAND
		e4		Dark gray, fine SAND (medium dense, wet)
				Gray, sandy GRAVEL (medium dense, wet)
24			SP	Dark gray, fine to medium SAND (medium dense, wet)
26	S-16	d		**Groundwater sample: ASB0233-25-20140625**
28		e4		
30				
32		e4		
34				- grades gravelly, fine to course SAND (medium dense, wet)
36	S-17	d		
38		e4		
40			SP-SM	Dark gray, fine to medium SAND with silt (loose, wet)
42				

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-4

ASB0233

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

42 — e4 — Dark gray GRAVEL with sand (medium dense, wet)

44

Not sampled

46

4

48

50 — ASB0233-50-20140625

Boring Completed 06/25/14
Total Depth of Boring = 50.0 ft.

52

54

56

58

60

62

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-4

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0233

Figure
B-114
(3 of 3)

ASB0234

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						AC	Asphalt concrete pavement	
						SP	Brown, gravelly, fine to course SAND (medium dense, damp)	
		e4				SM	**(FILL)**	
							Gray, very silty, fine SAND (medium dense, moist)	▽ ATD
5							**(ALLUVIUM)**	
						SP	Brown, fine to course SAND with gravel (medium dense, wet)	
		e4						
						SM	Dark gray, silty fine SAND (medium dense, wet)	
10							**Groundwater sample: ASB0234-8-20140626**	
		e4						
						SP	Dark gray, fine to medium SAND (medium dense, wet)	
15						SM	**Groundwater sample: ASB0234-15-20140626**	
		e4				SP-SM	Dark gray, very silty, fine SAND (medium dense, wet)	
						SP	Dark gray, fine SAND with silt (medium dense, wet)	
20							Dark gray, fine to medium SAND (medium dense, wet)	
		e4				GP	- grades iron oxide stained, fine to course SAND with gravel	
							Iron oxide stained, dark gray GRAVEL with sand (medium dense, wet)	
25						SP	Iron oxide stained, dark gray, fine to course SAND (medium dense, wet)	
							Groundwater sample: ASB0234-25-20140626	
		e4				GP		
						SP	Dark gray GRAVEL with sand (medium dense, wet)	
						WD	Dark gray, fine to medium SAND with gravel (medium dense, wet)	
30						SP		
						WD	WOOD with sand	
						SP-SM	Dark gray, fine to course SAND (medium dense, wet)	
		e4				SP		
						WD	WOOD (dense, wet)	
35							Dark gray, fine SAND with silt (medium	

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-5

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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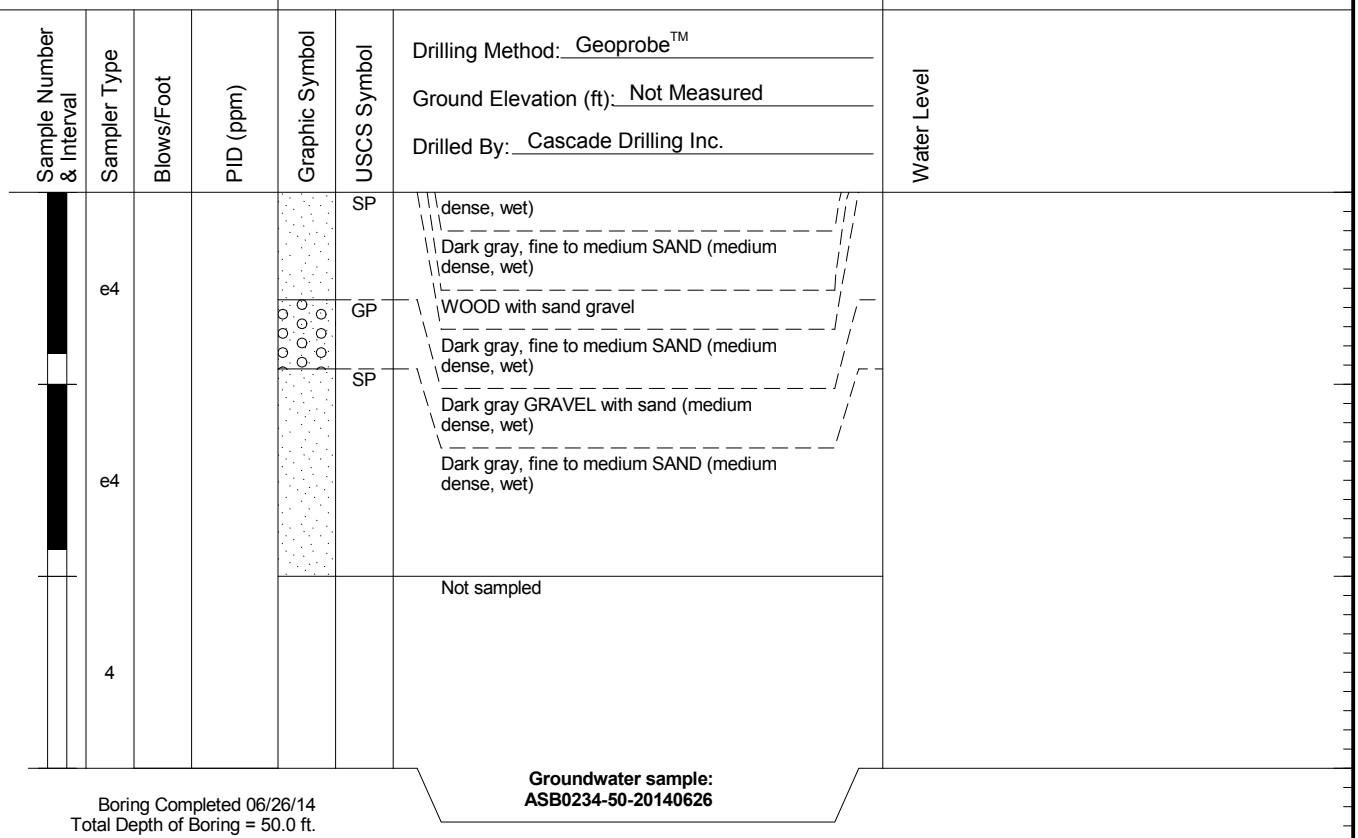
Auburn, Washington

Log of Boring ASB0234

Figure
B-115
(1 of 2)

ASB0234



Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-5

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0234

Figure
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(2 of 2)

ASB0235

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	USCS Symbol	Description	Water Level
0			SP	Light brown, fine SAND with organics (grass) (loose, damp) **(FILL)**	
		e4		- grades brown, gravelly, moist	
				- grades iron oxide stained, without gravel	
5			SM	Grayish-brown, silty, fine to medium SAND (medium dense, wet) **(ALLUVIUM)**	▽ ATD
		e4		**Groundwater sample: ASB0235-8-20140707**	
				- grades gray, very silty, fine SAND	
10			SP-SM	Dark gray, fine SAND with silt (medium dense, wet)	
			SP	Dark gray. fine to medium SAND (medium dense, wet)	
		e4			
			SM	Dark gray, silty, fine SAND (medium dense, wet)	
15			SP		
			SP-SM	Dark gray, fine to medium SAND (medium dense, wet)	
			SM		
			SP-SM	Dark gray, fine to medium SAND with silt (medium dense, wet)	
		e4	SM	**Groundwater sample: ASB0235-15-20140707**	
20			WD		
			SM	Dark gray, silty, fine to medium SAND (medium dense, wet)	
			SP	Dark gray, fine to medium SAND with silt (medium dense, wet)	
		e4		Dark gray, very silty, fine to medium SAND (medium dense, wet)	
25				WOOD	
				Gray, very silty, fine SAND (medium dense, wet)	
		e4	SM	Dark gray, fine to course SAND (medium dense, wet)	
				- grades fine to medium SAND	
30				**Groundwater sample: ASB0235-25-20140707**	
			SP-SM / SP	Grayish-brown, very silty, fine SAND (medium dense, wet)	
		e4		Gray, fine SAND with silt (medium dense, wet)	
35					

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-6

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0235

Figure
B-116
(1 of 2)

ASB0235

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
35		e4				SP	
40		e4					
45		4					
50							

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Dark gray, fine to medium SAND (medium dense, wet)

- grades fine to course SAND with gravel at 34.2

No recovery

Not sampled

Groundwater sample: ASB0235-50-20140707

Boring Completed 07/07/14
Total Depth of Boring = 50.0 ft.

55
60
65
70

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-6

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0235

Figure
B-116
(2 of 2)

ASB0236

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Description	Water Level
0						GP	Brown, sandy GRAVEL (medium dense, damp)	
						SM		
		e4				SP	Reddish-brown, silty, fine SAND (medium dense, moist) **(FILL)**	
							Gray, fine SAND (medium dense, moist) **(ALLUVIUM)**	
5							- grades brown, fine to course SAND with gravel	ATD
							- grades gray, fine SAND, wet	
		e4				SP-SM	Gray, fine to medium SAND with silt (medium dense, wet)	
						SM		
						ML	Dark gray, silty, fine SAND (medium dense, wet)	
10						SP	Dark gray, sandy SILT (medium stiff, wet)	
							Groundwater sample: ASB0236-9-20140708	
		e4				SM	Dark gray, fine to medium SAND (medium dense, wet)	
						SP-SM		
						SM	Dark gray, silty, fine SAND (medium dense, wet)	
15						SP		
						SM	Dark gray, fine to medium SAND with silt (medium dense, wet)	
		e4				SP	Dark gray, silty, fine to medium SAND (medium dense, wet)	
							Dark gray, fine SAND (medium dense, wet)	
20							**Groundwater sample: ASB0236-15-20140708**	
		e4					Dark gray, silty, fine SAND with wood (medium dense, wet)	
							Dark gray, fine to medium SAND with wood (medium dense, wet)	
25							- grades with gravel, without wood	
							- grades without gravel	
							Groundwater sample: ASB0236-25-20140708	
		e4				GP	Dark gray GRAVEL with sand (medium dense, wet)	
30						GP-GM	Dark gray, sandy GRAVEL with silt pockets (medium dense, wet)	
		e4						
35						GP		

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-7

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0236

Figure
B-117
(1 of 2)

ASB0236

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Soil Profile
35					GP	Dark gray, sandy GRAVEL (medium dense, wet)
		e4			SP-SM / GP	Dark gray, fine to medium SAND with silt (medium dense, wet)
						Dark gray, sandy GRAVEL (medium dense, wet)
40					SP	Dark gray, gravelly fine to course SAND (medium dense, wet)
		e4			GP	Dark gray GRAVEL (dense, wet)
45						Not sampled
		4				
50						

Groundwater sample: ASB0236-50-20140708

Boring Completed 07/08/14
Total Depth of Boring = 50.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-7

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0236

Figure
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(2 of 2)

ASB0237

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Description	Water Level
0						SP	Brown, gravelly, fine to course SAND (medium dense, damp)	
						SP	**(FILL)**	
		e4					Iron oxide stained, gray-brown, fine SAND (medium dense, moist) **(ALLUVIUM)**	
5							- grades to wet	ATD
		e4					- grades fine to medium SAND (medium dense, wet)	
10						SP-SM	**Groundwater sample: ASB0237-8-20140709**	
						SM	Gray, fine SAND with silt (medium dense, wet)	
		e4					Gray, silty, fine SAND (medium dense, wet)	
						ML	Gray SILT with sand (medium dense, wet)	
15						SP	Dark gray, fine to medium SAND (medium dense, wet)	
						WD		
						SP	WOOD with sand	
		e4					**Groundwater sample: ASB0237-15-20140709**	
						SM	Dark gray, fine to medium SAND (medium dense, wet)	
20						SP		
						SM	Dark gray, silty, fine SAND (medium dense, wet)	
		e4				SP	Dark gray, fine to medium SAND (medium dense, wet)	
						SM	Dark gray, silty, fine SAND (medium dense, wet)	
25							Dark gray, fine to medium SAND (medium dense, wet)	
							Dark gray, silty, fine SAND (medium dense, wet)	
							Groundwater sample: ASB0237-25-20140709	
30								
35								

Boring Completed 07/09/14
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-9

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0237

Figure
B-118

ASB0238

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Soil Description	Water Level
0					SP	Brown, fine to course SAND with gravel (medium dense, damp)	
					SM	**(FILL)**	
		e4				Iron oxide stained, gray-brown, silty, fine SAND (medium dense, moist)	
						(ALLUVIUM)	
					SP	Iron oxide stained, gray fine SAND (medium dense, moist)	
5						- grades wet	▽ ATD
		e4				- grades fine to medium SAND	
						Groundwater sample: ASB0238-8-20140709	
10							
		e4					
					GP	Dark gray, sandy GRAVEL (medium dense, wet)	
15					SP	Dark gray, fine to medium SAND (medium dense, wet)	
						Groundwater sample: ASB0238-15-20140709	
		e4					
					SP	Dark gray, fine to course SAND with gravel (medium dense, wet)	
20							
		e4					
25						**Groundwater sample: ASB0238-25-20140709**	

Boring Completed 07/09/14
Total Depth of Boring = 25.0 ft.

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-10

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0238

Figure
B-119

ASB0239

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						SP	Brown, gravelly, fine to course SAND (medium dense, damp) **(FILL)**	
		e4					- grades moist	
						SM	Brown, silty, fine SAND with organics (medium dense, moist) **(ALLUVIUM)**	
5							- grades without organics	
						SP	Gray, fine SAND (medium dense, moist)	▽ ATD
		e4					- grades dark gray, fine to medium SAND, wet	
							Groundwater sample: ASB0239-9-20140710	
10								
		e4						
						GP	Dark gray GRAVEL with sand (medium dense, wet)	
						SP	Dark gray, fine to course SAND with gravel (medium dense, wet)	
15							**Groundwater sample: ASB0239-15-20140710**	
		e4					- grades fine to medium SAND, without gravel	
20								
		e4				GP	Dark gray GRAVEL with sand (medium dense, wet)	
25							**Groundwater sample: ASB0239-25-20140710**	

Boring Completed 07/10/14
Total Depth of Boring = 25.0 ft.

30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-11

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Auburn, Washington

Log of Boring ASB0239

Figure
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ASB0240

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Soil Description	Water Level
0					SP	Brown, fine to course SAND with gravel (medium dense, damp)	
						(FILL)	
					SM		
		e4			PT	Brown, silty, fine SAND (medium dense, moist)	
						(ALLUVIUM)	
					SM	Brown PEAT (medium dense, moist)	
5					SP	Brown, silty, fine SAND (medium dense, moist)	
		e4				Iron oxide stained, dark gray, fine to medium SAND (medium dense, wet)	▽ ATD
10						No recovery	
						Groundwater sample: ASB0240-10-20140710	
		e4					
15					SP	Iron oxide stained, dark gray, fine to course SAND with gravel (medium dense, wet)	
						Groundwater sample: ASB0240-15-20140710	
		e4					
20						- grades fine to medium SAND	
		e4				- grades fine to course SAND with gravel	
25						**Groundwater sample: ASB0240-25-20140710**	

Boring Completed 07/10/14
Total Depth of Boring = 25.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-12

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Boeing Auburn Remedial Investigation
Auburn, Washington

Log of Boring ASB0240

Figure
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ASB0241

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample	Sampler Type	USCS	Description
0	S-1	d	SP-SM	Brown, fine to medium SAND with silt (medium dense, damp)
				(FILL)
	S-2	d, e4		- grades grayish-brown, moist (medium dense, moist)
				(ALLUVIUM)
	S-3	d		- grades iron oxide stained, brown
5	S-4	d		
	S-5	d	SM	Iron oxide stained, brown, very silty, fine SAND (medium dense, moist)
			SP	
		d	ML	
	S-6	e4	SP	Dark gray, fine to medium SAND (medium dense, wet)
	S-7	d		
				Brown, sandy SILT (medium dense, wet)
10	S-8	d	SM	Dark gray, fine to medium SAND (medium dense, wet)
				Groundwater sample: ASB0241-9-20140711
	S-9	d, e4	SP	Gray, silty, fine to medium SAND (medium dense, wet)
	S-10	d	GP	Dark gray, fine to medium SAND (medium dense, wet)
15	S-11	d		Dark gray GRAVEL with sand (medium dense, wet)
		e4		- grades sandy
				Groundwater sample: ASB0241-15-20140711
20	S-12	d		
		e4		
25	S-13	d	SP	Dark gray, fine to medium SAND (medium dense, wet)
	S-14	d, e4	GP	**Groundwater sample: ASB0241-25-20140711**
				Dark gray, very sandy GRAVEL (medium dense, wet)
			SP	Dark gray, fine to course SAND with gravel (medium dense, wet)
30	S-15	d		- grades without gravel
	S-16	d, e4		
35			GP	

∇ ATD

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-8

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Log of Boring ASB0241

Figure
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(1 of 2)

ASB0241

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample	Sampler Type	USCS	Description
35	S-17	d	GP	Dark gray GRAVEL with sand (medium dense, wet)
			SP	Dark gray, fine to course SAND (medium dense, wet)
	S-18	d e4		
				- grades fine to medium SAND
40	S-19	d		
	S-20	d e4	GP	Dark gray, sandy GRAVEL (medium dense, wet)
45		e4		

Groundwater sample: ASB0241-48-20140711

Boring Completed 07/11/14
Total Depth of Boring = 48.0 ft.

50 55 60 65 70

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-8

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Auburn, Washington

Log of Boring ASB0241

Figure
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(2 of 2)

ASB0242

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Soil Description	Water Level
0					SP	Brown, fine to course SAND with gravel (medium dense, damp)	
					SP	**(FILL)**	
		e4				Grayish-brown, fine to medium SAND (medium dense, moist) **(ALLUVIUM)**	
						- grades dark gray	
5						- grades iron oxide stained	
					SM	Iron oxide stained, brown, very silty, fine SAND (medium dense, damp to moist)	
		e4			SP	Dark gray, fine to medium SAND (medium dense, damp to moist)	
10						No recovery	ATD
		e4				**Groundwater sample: ASB0242-12-20140714**	
15					SP	Dark gray, fine to course SAND (medium dense, wet)	
		e4			GP	Dark gray, GRAVEL with sand (medium dense, wet)	
20					SP	Dark gray, fine SAND (medium dense, wet)	
		e4				- grades fine to medium	
						- grades fine to course SAND with gravel	
25						- grades fine to medium SAND without gravel	
						Groundwater sample: ASB0242-25-20140714	
		e4				- grades fine to course SAND	
					GP	Dark gray GRAVEL with sand (medium dense, wet)	
30					SP	Dark gray, fine to medium SAND (very dense, wet)	
		e4				- grades fine to course SAND	
					GP	Grayish-brown, sandy GRAVEL (very dense, wet)	
35							

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-13

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Auburn, Washington

Log of Boring ASB0242

Figure
B-123
(1 of 2)

ASB0242

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): Not Measured
Drilled By: Cascade Drilling Inc.

35 — Not sampled

40 — 4

45

Groundwater sample: ASB0242-48-20140714

Boring Completed 07/14/14
Total Depth of Boring = 48.0 ft.

50

55

60

65

70

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-13

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Auburn, Washington

Log of Boring ASB0242

Figure
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ASB0243

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): Not Measured Drilled By: Cascade Drilling Inc.	Water Level
0						SP	Brown, fine to course SAND with gravel (medium dense, damp)	
							(FILL)	
						SM SP	- grades dark brown, organicy	
		e4					Brown, silty, fine SAND (medium dense, damp)	
							(ALLUVIUM)	
5						ML	Iron oxide stained, dark gray-brown, fine to medium SAND (medium dense, moist)	
							- grades grayish-brown	
		e4				SP	Iron oxide stained, gray-brown, very sandy SILT (medium dense, moist)	
							- grades with abundant organics	
							- grades without organics	
10						SM ML SP	Iron oxide stained, dark gray, fine SAND (medium dense, moist)	▽ ATD
		e4				ML SP	Iron oxide stained, brown, silty, fine SAND (medium dense, moist)	
							Iron oxide stained, brown, very sandy SILT (medium stiff, moist)	
15						SM SP- SM	Iron oxide stained, brown, fine SAND (medium dense, wet)	
		e4					Iron oxide stained, gray, very sandy SILT (medium stiff, wet)	
						SM SP		
						SM SP	Dark gray, fine to medium SAND (medium dense, wet)	
20							**Groundwater sample: ASB0243-14-20140715**	
		e4				GP	Grayish-brown, silty, fine to medium SAND with gravel (medium dense, wet)	
							Iron oxide stained, gray-brown, fine SAND with silt (medium dense, wet)	
25						GP	Dark gray, very silty, fine SAND (medium dense, wet)	
		e4					Iron oxide stained, dark gray, fine SAND (medium dense, wet)	
						GP	Dark gray, very silty, fine SAND (medium dense, wet)	
30						SP	Dark gray, fine to medium SAND (medium dense, wet)	
							Dark gray, sandy GRAVEL (medium dense, wet)	
		e4				GP	Dark gray GRAVEL with sand (medium dense, wet)	
35						SP	**Groundwater sample: ASB0243-25-20140715**	

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-14

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Auburn, Washington

Log of Boring ASB0243

Figure
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(1 of 2)

ASB0243

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™

Ground Elevation (ft): Not Measured

Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
35						SP	Dark gray GRAVEL with sand (medium dense, wet)	
		e4					Dark gray, fine to course SAND (medium dense, wet)	
							Dark gray, sandy GRAVEL (medium dense, wet)	
40						GP		
						SP	Dark gray, fine to course SAND (medium dense, wet)	
							Dark gray GRAVEL with sand (medium dense, wet)	
		e4				GP	Dark gray, fine to medium SAND (medium dense, wet)	
45							Dark gray GRAVEL with sand (medium dense, wet)	
							Not sampled	
		4						
50							**Groundwater sample: ASB0243-50-20140715**	

Boring Completed 07/15/14
Total Depth of Boring = 50.0 ft.

55

60

65

70

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-14

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Auburn, Washington

Log of Boring ASB0243

Figure
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(2 of 2)

ASB0244

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): 82.276588
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
						GP-GM	Gray/brown, sandy GRAVEL with silt (medium dense, damp)	
		e4				SM	**(FILL)**	
							Dark grayish-brown, silty, fine to medium SAND with peat (medium dense, moist) **(ALLUVIUM)**	
5	S-1	d				GP-GM	**Soil gas sample: ASG0244-20150316**	
						PT	Gray, sandy GRAVEL	▽ ATD
	S-2	d e4				SM	Brown PEAT (soft, moist)	
							Brownish-gray, silty, fine SAND with medium sand lenses (medium dense, wet)	
10							**Groundwater sample: ASB0244-9-20150316**	

Boring Completed 03/16/15
Total Depth of Boring = 10.0 ft.

15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-1

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Log of Boring ASB0244

Figure
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ASB0245

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): 82.083038
Drilled By: Cascade Drilling Inc.

0 — Not sampled

Soil gas sample: ASG0245-20150316

5 — ATD

10 — **Groundwater sample: ASB0245-10-20150316**

Boring Completed 03/16/15
Total Depth of Boring = 10.0 ft.

15

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-2

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Log of Boring ASB0245

Figure
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ASB0246

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): 78.801178
Drilled By: Cascade Drilling Inc.

0 — Not sampled

Soil gas sample: ASG0246-20150316

5 — ATD

10 — **Groundwater sample: ASB0246-10-20150316**

Boring Completed 03/16/15
Total Depth of Boring = 10.0 ft.

15

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-4

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Auburn, Washington

Log of Boring ASB0246

Figure
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ASB0247

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): 80.880806
Drilled By: Cascade Drilling Inc.

0 — Not sampled

Soil gas sample: ASG0247-20150317

5 — ATD

10 — **Groundwater sample: ASB0247-10-2015-0317**

Boring Completed 03/17/15
Total Depth of Boring = 10.0 ft.

15

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-3

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0247

Figure
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ASB0248

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): 78.762901 Drilled By: Cascade Drilling Inc.	Water Level
0							Not sampled **Soil gas sample: ASG0248-20150317** **Groundwater sample: ASB0248-7-20150317**	▽ ATD
5								
10							Boring Completed 03/17/15 Total Depth of Boring = 10.0 ft.	
15								
20								
25								
30								
35								

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-5

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Log of Boring ASB0248

Figure
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ASB0249

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): 76.877930 Drilled By: Cascade Drilling Inc.	Water Level
0							Not sampled	
							Soil gas sample: ASG0249-20150317	
5								▽ ATD
							Groundwater sample: ASB0249-7-20150317	
10								

Boring Completed 03/17/15
Total Depth of Boring = 10.0 ft.

15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-15

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0249

Figure
B-130

ASB0250

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0						Drilling Method: Geoprobe™ Ground Elevation (ft): 79.363335 Drilled By: Cascade Drilling Inc.	
						Not sampled	
						Soil gas sample: ASG0250-20150317	▽ ATD
5						**Groundwater sample: ASB0250-7-20150317**	
10						Boring Completed 03/17/15 Total Depth of Boring = 10.0 ft.	
15							
20							
25							
30							
35							

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-20

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0250

Figure
B-131

ASB0251

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							

Drilling Method: Geoprobe™

Ground Elevation (ft): 79.154030

Drilled By: Cascade Drilling Inc.

Not sampled

Soil gas sample: ASG0251-20150318

▽ ATD

Groundwater sample: ASB0251-7-20150318

5

10

Boring Completed 03/18/15
Total Depth of Boring = 10.0 ft.

15

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designaton P-19

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0251

Figure
B-132

ASB0251R

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): 80.264915
Drilled By: Cascade Drilling Inc.

0 — Not sampled

Soil gas sample: ASG0251R-20150426

ATD

5

10 — **Groundwater sample: ASB0251R-10-20150426**

Boring Completed 04/26/15
Total Depth of Boring = 10.0 ft.

15

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-19

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0251R

Figure
B-133

ASB0251R2

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™

Ground Elevation (ft): 80.264915

Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	USCS Symbol	Soil Profile	Water Level
0					AC	Asphalt	
		e4			GP-GM	Grey, sandy GRAVEL with silt (medium dense, damp) **(FILL)**	
					SP	Dark grey, fine SAND (medium dense, damp) **(ALLUVIUM)** **Soil gas sample: ASG0251R2-20150625**	
5						Not sampled	▽ ATD
						Groundwater sample: ASB0251R2-8-20150625	
10							

Boring Completed 06/25/15
Total Depth of Boring = 10.0 ft.

15
20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-19

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0251R2

Figure
B-134

ASB0252

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							

Drilling Method: Geoprobe™

Ground Elevation (ft): 75.764519

Drilled By: Cascade Drilling Inc.

Not sampled

Soil gas sample: ASG0252-20150318

▽ ATD

Groundwater sample: ASB0252-8-20150318

Boring Completed 03/18/15
Total Depth of Boring = 10.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-17

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0252

Figure
B-135

ASB0253

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): 76.786560 Drilled By: Cascade Drilling Inc.	Water Level
0							Not sampled	
							Soil gas sample: ASG0253-20150318	▽ ATD
5							**Groundwater sample: ASB0253-8-20150318**	
10							Boring Completed 03/18/15 Total Depth of Boring = 10.0 ft.	
15								
20								
25								
30								
35								

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-16

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0253

Figure
B-136

ASB0254

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level
0							

Drilling Method: Geoprobe™

Ground Elevation (ft): 79.345413

Drilled By: Cascade Drilling Inc.

Not sampled

Soil gas sample: ASG0254-20150318

▽ ATD

Groundwater sample: ASB0254-8-20150318

Boring Completed 03/18/15
Total Depth of Boring = 10.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-18

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0254

Figure
B-137

ASB0255

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): 80.14814 Drilled By: Cascade Drilling Inc.	Water Level
0							Not sampled	
							Soil gas sample: ASG0255-20150426	
5								▽ ATD
10							**Groundwater sample: ASB0255-10-20150426**	
15							Boring Completed 04/26/15 Total Depth of Boring = 15.0 ft.	
20								
25								
30								
35								

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-14

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0255

Figure
B-138

ASB0256

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): 80.166824 Drilled By: Cascade Drilling Inc.	Water Level
0							Not sampled	
							Soil gas sample: ASG0256-20150426	
5								
10								▽ ATD
							Groundwater sample: ASB0256-12-20150427	
15								

Boring Completed 04/27/15
Total Depth of Boring = 15.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-13

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0256

Figure
B-139

ASB0256R

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): 80.166824
Drilled By: Cascade Drilling Inc.

0 — AC — Asphalt

SP-SM — Grey, gravelly, fine SAND with silt (medium dense, damp)
(FILL)

e4

Soil gas sample: ASG0256R-20150625

5 — Not sampled

ATD

10

15

Groundwater sample: ASB0256R-15-20150625

Boring Completed 06/25/15
Total Depth of Boring = 15.0 ft.

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-13

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0256R

Figure
B-140

ASB0257

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): 78.897575
Drilled By: Cascade Drilling Inc.

0 — Not sampled

Soil gas sample: ASG0257-20150427

5

10 — ATD

15 — **Groundwater sample: ASB0257-15-20150427**

Boring Completed 04/27/15
Total Depth of Boring = 15.0 ft.

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-12

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0257

Figure
B-141

ASB0258

SAMPLE DATA | **SOIL PROFILE** | **GROUNDWATER**

Drilling Method: Geoprobe™
Ground Elevation (ft): 80.491234
Drilled By: Cascade Drilling Inc.

Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Soil Profile	Water Level
0						AC	Asphalt concrete pavement	
	S-1	d				GP	Gray, sandy GRAVEL with silt (dense, damp)	
	S-2	e4 d				SM	**(FILL)** Gray, sility, fine SAND with gravel (dense, damp)	
5	S-3	d				SM	**(ALLUVIUM)** **Soil gas sample: ASG0258-20150428**	
	S-4	d				GP	Gray, very silty SAND with gravel (medium dense, damp)	
	S-5	e4 d					Gray, sandy GRAVEL with silt (dense, wet)	ATD
10	S-6	d				SM	- grades with silty SAND with gravel and layers of peat	
	S-7	d					Gray, siilty, fine to medium SAND (medium dense, wet)	
	S-8	d				PT	**Groundwater sample: ASB0258-10-20150428**	
	S-9	e4 d				SP	- grades with gravel, dense	
	S-10	d				ML	Brown PEAT (soft, wet)	
15							Gray, fine SAND (medium dense, wet)	
							Gray SILT with sand (dense, wet)	

Boring Completed 04/27/15
Total Depth of Boring = 15.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-11

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Auburn, Washington

Log of Boring ASB0258

Figure
B-142

ASB0259

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): 78.990189 Drilled By: Cascade Drilling Inc.	Water Level
0							Not sampled	
							Soil gas sample: ASG0259-20150428	
5								▽ ATD
10							**Groundwater sample: ASB0259-10-20150428**	
15								

Boring Completed 04/28/15
Total Depth of Boring = 15.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-10

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0259

Figure
B-143

ASB0260

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™

Ground Elevation (ft): 79.117012

Drilled By: Cascade Drilling Inc.

0 — Not sampled

Soil gas sample: ASG0260-20150428

5 — ATD

Groundwater sample: ASB0260-8-20150428

10

15

Boring Completed 04/28/15
Total Depth of Boring = 15.0 ft.

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-9

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0260

Figure
B-144

ASB0261

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Water Level

Drilling Method: Geoprobe™
Ground Elevation (ft): 80.506592
Drilled By: Cascade Drilling Inc.

0 — Not sampled

Soil gas sample: ASG0261-20150428

5 — ▽ ATD

Groundwater sample: ASB0261-10-20150428

10

15

Boring Completed 04/28/15
Total Depth of Boring = 15.0 ft.

20

25

30

35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-8

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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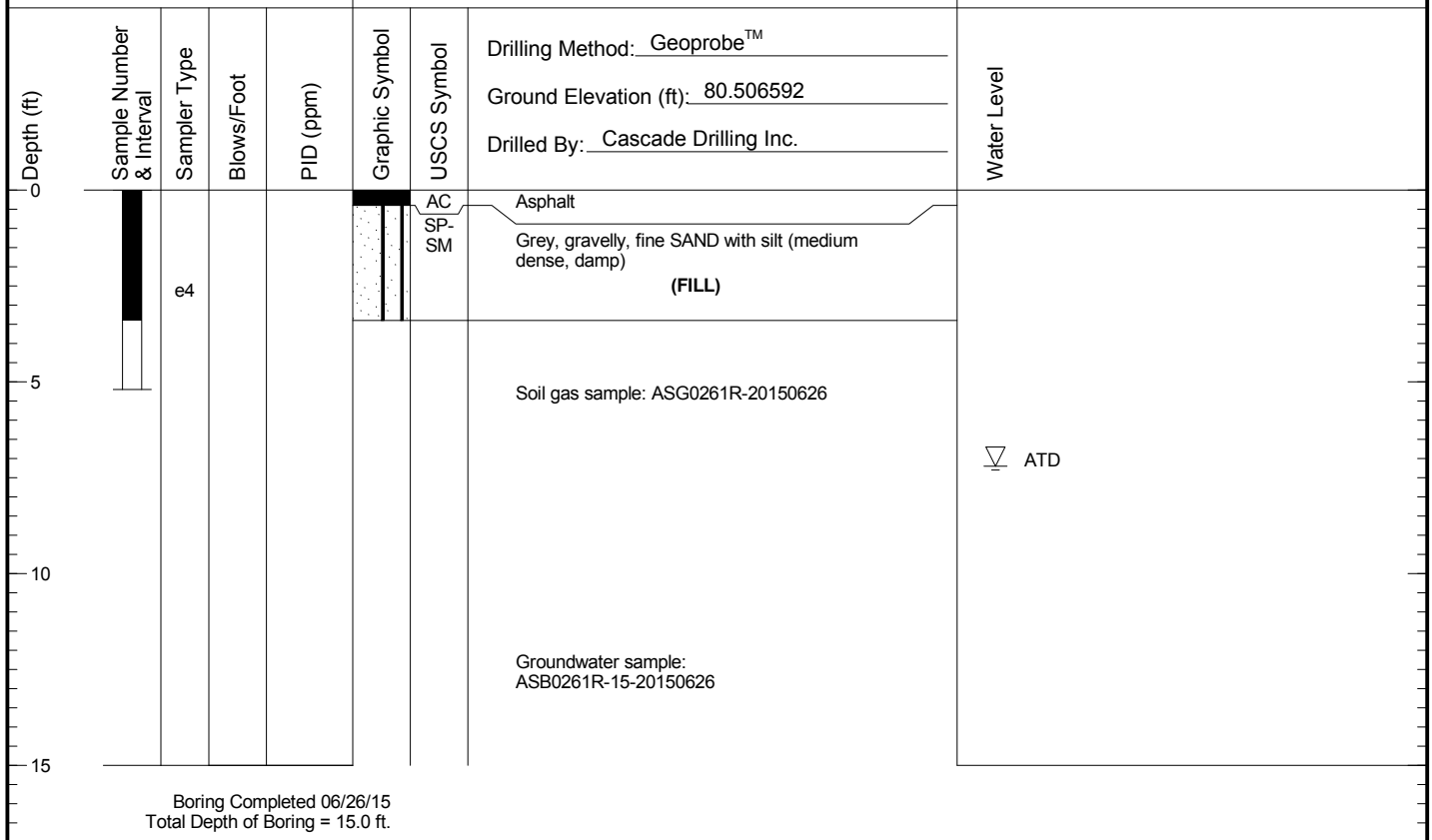
Log of Boring ASB0261

Figure
B-145

ASB0261R



Boring Completed 06/26/15
Total Depth of Boring = 15.0 ft.

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-8

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0261R

Figure
B-146

ASB0262

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): 81.504982 Drilled By: Cascade Drilling Inc.	Water Level
0							Not sampled	
							Soil gas sample: ASG0262-20150429	
5								▽ ATD
10							**Groundwater sample: ASB0262-10-20150429**	
15							Boring Completed 04/29/15 Total Depth of Boring = 15.0 ft.	
20								
25								
30								
35								

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-7

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0262

Figure
B-147

ASB0263

SAMPLE DATA				SOIL PROFILE			GROUNDWATER
Depth (ft)	Sample Number & Interval	Sampler Type	Blows/Foot	PID (ppm)	Graphic Symbol	USCS Symbol	Drilling Method: Geoprobe™ Ground Elevation (ft): 81.579483 Drilled By: Cascade Drilling Inc.	Water Level
0							Not sampled **Soil gas sample: ASG0263-20150429**	
5								▽ ATD
10							**ASB0263-10-20150429**	
15								

Boring Completed 04/29/15
Total Depth of Boring = 15.0 ft.

20
25
30
35

Notes:
1. Stratigraphic contacts are based on field interpretations and are approximate.
2. Reference to the text of this report is necessary for a proper understanding of subsurface conditions.
3. Refer to "Soil Classification System and Key" figure for explanation of graphics and symbols.
4. Work plan designation P-6

025164. 5/6/16 R:\PROJECTS\025164 - MASTER FILE.GPJ SOIL BORING LOG

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Log of Boring ASB0263

Figure
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