Log of Exploratory Boring:

Notes
2750 West Commodore Way

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	100' North and 75' West of NW Corner of Headquarters Building
Surface Condition:	Asphalt
Total Depth:	22
First GW Depth:	16

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							Asphalt	Asphalt		
1	3							Damp, medium dense, sandy SILT with gravel, dark brown, no hydrocarbon odor		
2	3		50						Dp	
3	3									
	2									
	2		60						Dp	
4	2						ML			
	1									
5	2	0.0	70		B02-5				Dp	
6	2									
	2									
	3		80						Dp	
7										
	3									
8	17	0.0	50		B02-7.5		ML	Moist, medium dense, sandy SILT with gravel and building debris (wood, nails), dark brown, no hydrocarbon odor	Mst	
	6									
9	2						ML	Moist to wet, medium dense, sandy SILT with gravel, blackish brown, no hydrocarbon odor		
	2		100						Wet	
	2									
10	8	0.1			B02-10.5			Wet to moist, medium dense, sandy SILT with gravel, dark gray and brown mottled, no hydrocarbon odor		
11	10		100					Wood debris at 12'	Wet	
	11									
12	12									
	13		40				ML		Mst	
	13									
13	12									
	12									
14	17		20						Dp	
15	19							Moist to wet at 16', silty medium to fine SAND with gravel, olive gray, no hydrocarbon odor		
	39		100						Dp	
	50									
16									▼	
	30	0.0			B02-16.5					
17	30	0.0	80		B98-16.5		SM		Wet	
	30									
18	10									
	15		80						Wet	
	40									
19										
	26									
20	36		100						Wet	

SOUND ENVIRONMENTAL STRATEGIES
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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 4/21/2006
Date Finished: 4/21/2006
Logged By: CSC
Chk By: DRAFT
SES Project No.: 0440-004

BORING LOG
B02 / 02MW08

Log of Exploratory Boring:

Notes
2750 West Commodore Way

Drilling Co./Driller:	Cascade / Frank
Drilling Method:	Hollow-stem Auger
Location:	100' North and 75' West of NW Corner of Headquarters Building
Surface Condition:	Asphalt
Total Depth:	22
First GW Depth:	16

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20	50/5	0.0			B02-20					
21	19 33 41		100				ML	Damp, dense, fine sandy, clayey SILT, dark gray, no hydrocarbon odor	Dp	
22								Boring terminated at 22 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using stainless steel, 0.020 slot screen, 10-12 silica sand, and bentonite chips. Renamed 02MW09.		
23										
24										
25										
26										
27										
28										
29										
30										
31										
32										
33										
34										
35										
36										
37										
38										
39										
40										

Log of Exploratory Boring:

Notes
2750 West Commodore Way

Drilling Co./Driller:	Cascade / Casey
Drilling Method:	Geoprobe
Location:	200' North and 100' West of NW Corner of Headquarters Building
Surface Condition:	Grass, Topsoil
Total Depth:	14
First GW Depth:	9

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0										
1								Moist, fine to coarse sandy SILT with trace subrounded gravel (60-35-5), with dark brown organics. Olive-gray to gray-brown with iron mottling, weak hydrocarbon odor, no discoloration.		
2			75							
3										
4		126			GP21-4		ML		Mst	
5										
6			75					- grades to sandy SILT with clay; blue-gray, weak petroleum hydrocarbon odor, blue discoloration.		
7		15.7			GP21-6.5				Mst	
8		89.0			GP21-8			- coarsens to fine to coarse sandy SILT with fine gravel (50-45-5); olive with specks of iron oxide, weak hydrocarbon odor, no discoloration.	Mst	
9									▽	
10		30.7	90		GP21-10		SP-SM	Wet, fine to coarse SAND with trace silt (5-95-0). Olive-brown to red-brown, no hydrocarbon odor, no discoloration.	▼ Wet	
11										
12							SM	Moist, fine to coarse silty SAND (50-50-0). Gray, no hydrocarbon odor, no discoloration.		
13		95.5	90		GP21-13		ML	Moist, very stiff, SILT with fine sand. Dark gray, no hydrocarbon odor, no discoloration.	Wet	
14										
15								Boring terminated at 14 feet below ground surface (bgs). Boring was completed as 3/4-inch monitoring well 02MW09, with the following construction as illustrated above:		
16								0' - 3' bgs: concrete, flush-mount monument 3' - 5' bgs: fine bentonite 5' - 14' bgs: sand filter 7' - 12' bgs: screen		
17										
18								Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil classifications and textural descriptions.		
19										
20										

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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 10/11/2007
Date Finished: 10/11/2007
Logged By: AIS
Chk By: DHG
Project No.: 0440-004

BORING LOG
GP21 / 02MW09

Log of Exploratory Boring:

Notes
2750 West Commodore Way

Drilling Co./Driller:	Cascade / Casey
Drilling Method:	Geoprobe
Location:	140' North and 10' West of NW Corner of Headquarters Building
Surface Condition:	Grass, Topsoil
Total Depth:	16
First GW Depth:	15

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0–1							OL	Topsoil, with gravel and roots, brown.		
2–3			80				SM	Moist, silty, fine to medium SAND with fine gravel (20-70-10), interbedded with <0.25-inch thick lenses of SILT. Olive-brown with iron mottling, no hydrocarbon odor, no discoloration.		
4		110			GP22-4				Mst	
5–6		221	80				ML	Moist, fine to coarse sandy SILT with gravel (60-30-10), with organics. Brown to dark brown, no hydrocarbon odor, no discoloration.	Mst	
7–8		416			GP22-8		SM	Moist, silty fine to coarse SAND with some fine gravel (30-60-10). Red-brown, no hydrocarbon odor.	Mst	
9								- grades to silty fine to coarse SAND with clay (50-50-0), with wood fragments; brown to red-brown, no hydrocarbon odor, no discoloration.		
10		189	65		GP22-10				Mst	
11		391					PT	Moist, PEAT. Dark brown, no petroleum hydroacrbon odor, no discoloration.		
12–13							SM	Moist, silty, fine to coarse SAND with fine to coarse gravel (40-50-10), interbedded with clean SAND. Brown with iron oxide staining, no hydrocarbon odor, no discoloration.		
14			90				SP-SM	Wet, fine to coarse SAND with silt (10-90-0). Brown to red-brown, no hydrocarbon odor, no discoloration.	Wet	
15		29.8			GP22-15				▽ Wet	
16		119			GP22-16		ML	Moist, stiff, SILT with trace sand (95-5-0). Gray, weak hydrocarbon odor, no discoloration.	Mst	
17–19								Boring terminated at 16 feet below ground surface (bgs). Temporary monitoring well installed to collect groundwater sample GP22-20071011. Boring was backfilled to surface using bentonite chips. Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil classifications and textural descriptions.		
20										

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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 10/11/2007
Date Finished: 10/11/2007
Logged By: AIS
Chk By: DHG
Project No.: 0440-004

BORING LOG
GP22

Log of Exploratory Boring:

Notes
2750 West Commodore Way

Drilling Co./Driller:	Cascade / Casey
Drilling Method:	Geoprobe
Location:	150' North and 20' East of NW Corner of Headquarters Building
Surface Condition:	Grass, Topsoil
Total Depth:	7.5
First GW Depth:	5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0			100				OL	Topsoil.		
1								Dry, silty, fine to medium SAND (20-80-0), with roots. Light brown, no hydrocarbon odor, no discoloration.		
2		3.1			GP23-2.5			- becomes moist, brown below 2 feet.	Mst	
3			100				SM		▼	
4								- becomes stratified below 3.5 feet, with red brown banding, no hydrocarbon odor.		
5		27.2			GP23-4.5			- becomes wet, gray below 4.5 feet.	Mst ▽	
6		6.2			GP23-5.5				Wet	
7		30.5	100		GP23-7.5		ML	Moist, stiff, SILT with trace fine-grained sand and trace black organics (95-5-0, laminated. Gray with iron mottling, no hydrocarbon odor, no discoloration.	Mst	
8								Boring terminated at 7.5 feet below ground surface (bgs) due to refusal. Boring was completed as 3/4-inch diameter monitoring well 02MW10, with the following construction as illustrated above:		
9								0' - 1.5' bgs: concrete, flush-mount monument		
10								1.5' - 2.5' bgs: fine bentonite		
11								2.5' - 7.5' bgs: sand filter		
12								2.5' - 7.5' bgs: screen		
13								Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil classifications and textural descriptions.		
14										
15										
16										
17										
18										
19										
20										

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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 10/11/2007
Date Finished: 10/11/2007
Logged By: AIS
Chk By: DHG
Project No.: 0440-004

BORING LOG
GP23 / 02MW10

Log of Exploratory Boring:

Notes
2750 West Commodore Way

Drilling Co./Driller:	Cascade / Casey
Drilling Method:	Geoprobe
Location:	190' North and 40' West of NW Corner of Headquarters Building
Surface Condition:	Concrete
Total Depth:	12
First GW Depth:	9

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Concrete (5 inches)		
1								Moist, fine to coarse sandy SILT with trace gravel (75-30-5) with roots, low plasticity. Dark brown, moderate hydrocarbon odor, imparts a slight sheen to water.		
2			55							
3							ML	- becomes blue-gray below 2 feet.	Mst	
4		381			GP24-4					
5								- increased proportion of sand (65-40-5) below 4 feet; faint hydrocarbon odor.		
6			100					- with decayed wood at 5.25 feet.		
7		110			GP24-6.5		SP-SM	Moist, fine to coarse SAND with silt (10-90-0), blue-gray, faint hydrocarbon odor.	Mst	
8							ML	Moist, fine to coarse sandy SILT (50-50-0) with organics and fine roots. Dark brown, strong odor of decaying organic matter, no discoloration, imparts a slight sheen to water.		
9		609			GP24-9					
10			100				SM	Wet, silty fine to medium SAND with trace fine gravel (30-65-5). Gray, strong petroleum hydrocarbon odor, bluish discoloration.	Wet	
11		115			GP24-11.5		ML	Moist, stiff, SILT with fine sand and clay, low plasticity. Gray with iron mottling, weak petroleum hydrocarbon odor, no discoloration.	Mst	
12										
13								Boring terminated at 12 feet below ground surface (bgs). Boring was completed as 3/4-inch monitoring well 02MW11, with the following construction as illustrated above:		
14								0' - 2' bgs: concrete, flush-mount monument		
15								2' - 4' bgs: fine bentonite		
16								4' - 12' bgs: sand filter		
17								6' - 11' bgs: screen		
18								Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil classifications and textural descriptions.		
19										
20										

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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 10/11/2007
Date Finished: 10/11/2007
Logged By: AIS
Chk By: DHG
Project No.: 0440-004

BORING LOG
GP24 / 02MW11

Log of Exploratory Boring:

Notes
2750 West Commodore Way

Drilling Co./Driller:	Cascade / Casey
Drilling Method:	Geoprobe
Location:	245' North and 40' West of NW Corner of Headquarters Building
Surface Condition:	Concrete
Total Depth:	14
First GW Depth:	9

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Concrete (6 inches). Hand-augered from 0.5 to 2 feet below surface.		
1			100					Moist, silty fine to coarse SAND with clay (50-50-0). Light brown, no petroleum hydrocarbon odor, no discoloration.		
2										
3							ML			
4			55						Mst	
5		251			GP25-05					
6							SP-SM	Moist, fine to coarse SAND with silt (10-90-0). Blue-gray, strong hydrocarbon odor, imparts a slight sheen to water.		
7		1786			GP25-06		SM	Moist, silty fine to coarse SAND with gravel (30-65-5). Brown, strong hydrocarbon odor, presence of free product, imparts heavy sheen to water.	Mst	
8			100						▼	
9		22.5			GP25-9		ML	Moist, soft, sandy SILT, low to medium plasticity (60-40-0). Blue-gray with black mottling, strong hydrocarbon odor, imparts slight sheen to water.	▽	
10								Moist, silty fine to medium SAND (30-70-0). Blue-gray with iron mottling, weak hydrocarbon odor.		
11							SM	- becomes wet below 11 feet.		
12			100						Wet	
13		30.9			GP25-13					
14		7.9					SP-SM	Moist, fine to medium SAND with silt, laminated with <0.25-inch thick layers of SILT. Gray, weak hydrocarbon odor.	Mst	
15								Boring terminated at 14 feet below ground surface (bgs). Boring was completed as 3/4-inch monitoring well 02MW12, with the following construction as illustrated above:		
16								0' - 2' bgs: concrete, flush-mount monument 2' - 6' bgs: fine bentonite 6' - 14' bgs: sand filter 8.5' - 13.5' bgs: screen		
17										
18								Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil classifications and textural descriptions.		
19										
20										

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Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 10/12/2007
Date Finished: 10/12/2007
Logged By: AIS
Chk By: DHG
Project No.: 0440-004

BORING LOG
GP25 / 02MW12

Log of Exploratory Boring:

Notes
2750 West Commodore Way

Drilling Co./Driller:	Cascade / Casey
Drilling Method:	Geoprobe
Location:	245' North and 20' West of NW Corner of Headquarters Building
Surface Condition:	Concrete
Total Depth:	12
First GW Depth:	8.5

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0							CONC	Concrete (6 inches).		
1										
2			60				SM		Mst	
3								Moist, silty fine to medium SAND with fine gravel. Yellow brown, no hydrocarbon odor, no discoloration. (FILL)		
4								- includes brick fragments below 3.5 feet; dark brown.		
5		45.4			GP26-5		SM	- becomes silty fine to coarse SAND; brown, moderate hydrocarbon odor.		
6			100				ML	- sandy SILT, olive, faint hydrocarbon odor.	Mst	
7							SM	- fine to coarse SAND interbedded with SILT, gray with iron mottling, weak hydrocarbon odor, no discoloration.		
8		39.4			GP26-8				▽	
9		80.8			GP26-9		SM	- wet below 8.5 feet, with brick and wood fragments, weak hydrocarbon odor.	Wet	
10			100				ML	Very moist, SILT, olive to red-brown.		
11							SP-SM	Wet, fine to coarse SAND with silt and gravel (10-80-10). Gray to red brown.		
12		14.2			GP26-12				Wet	
13								Boring terminated at 12 feet below ground surface (bgs). Temporary monitoring well installed to collect groundwater sample GP26-20071012. Boring was abandoned using bentonite chips.		
14								Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil classifications and textural descriptions.		
15										
16										
17										
18										
19										
20										

SoundEarth Strategies
WWW.SOUNDEARTHINC.COM

Seattle Terminal Properties
2737-2805 West Commodore Way
Seattle, Washington

Date Started: 10/12/2007
Date Finished: 10/12/2007
Logged By: AIS
Chk By: DHG
Project No.: 0440-004

BORING LOG
GP26

Log of Exploratory Boring:

Notes
2752 W. Commodore Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	140' North, 165' West of NW Corner of Headquarters Building
Surface Condition:	Grass, Gravel Drive
Total Depth:	16.4
First GW Depth:	10

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
0								Grass and gravel at ground surface.		
3	3 3 5		0					No Recovery.		
5	5 7 9	0.0	100		B74-05		SM	Moist, medium dense, silty SAND (35-65-0). Brown with iron mottling, no hydrocarbon odor.	Mst	
10	15 18 31	0.0	100		B74-10		SM	Wet, very dense, silty SAND (30-70-0). Brown, no hydrocarbon odor.	Wet	
13	11 15 31	0.0	100		B74-12.5		ML	Damp, hard, sandy SILT (60-40-0). Gray, no hydrocarbon odor.	Dp	
15	18 35 50/3	0.0	100		B74-15		ML	Damp, very hard, sandy SILT (60-40-0). Gray, no hydrocarbon odor.	Dp	
17								Boring terminated at 16.4 feet below ground surface. Two-inch diameter monitoring well installed as depicted above right, using PVC, 0.010 slot screen, 10-12 silica sand, and bentonite chips. Groundwater was encountered at 10 feet bgs during drilling. Boring was completed as monitoring well 02MW13.		
19								Three number strings (#-#-#) represent estimated volumes of percent fines-percent sand-percent gravel, and serve as the basis for ASTM soil		

Log of Exploratory Boring:

Notes
2752 W. Commodore Way

Drilling Co./Driller:	Cascade / Jayman
Drilling Method:	Hollow-stem Auger
Location:	140' North, 165' West of NW Corner of Headquarters Building
Surface Condition:	Grass, Gravel Drive
Total Depth:	16.4
First GW Depth:	10

Moisture Content:
Dry = Dry, Dp = Damp, Mst = Moist, Wet = Wet

Hydrocarbon Odor: NO = no odor, VFO = very faint odor
WO = weak odor, MO = moderate odor, SO = strong odor

Water Levels
▼ After Completion
▽ During Drilling

Depth (feet)	Blow Count	PID	Sample Recovery	Sample Interval	Sample ID	Lithography	USCS Class	Description	Moisture Content	Well Detail
20								classifications and textural descriptions.		
21										
22										
23										
24										
25										
26										
27										
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37										
38										
39										
40										

SoundEarth Strategies

Project: TOC Holdings Co.Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Gravel
Well Location N/S: 42' S of NW corner of canopy
Well Location E/W: 54' E of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG B226

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 7 feet bgs
Water Depth After Completion: 11.5 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Gravel (6 inches).**	
			80	1.6	B226-02.5	SM		**Moist, silty fine SAND, brown, no hydrocarbon odor (25-75-0).**	
5				1.5	B226-05	ML		**Moist, fine sandy SILT, light gray with dark orange-brown mottling, no hydrocarbon odor (60-40-0).**	
			100	2.3	B226-07.5	SP		**Wet, fine to medium SAND with some silt, gray, no hydrocarbon odor (10-90-0).**	
10			100	3.3 3.9	B226-10 B226-12.5	SM-ML		**Moist, interbedded fine to medium sandy SILT and silty SAND, gray and brown, no hydrocarbon odor.**	
						SP		**Wet, fine to medium SAND with some silt, gray, no hydrocarbon odor (10-90-0).**	
15						SM		**Wet, silty fine SAND, gray, red-brown layer at 17 feet below ground surface (bgs), faint hydrocarbon odor (20-80-0).**	

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	5 foot core		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co.Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Gravel
Well Location N/S: 42' S of NW corner of canopy
Well Location E/W: 54' E of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG | B226

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 7 feet bgs
Water Depth After Completion: 11.5 feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				20.5	B226-15			**Wet, silty fine SAND, gray, red-brown layer at 17 feet below ground surface (bgs), faint hydrocarbon odor (20-80-0).**	
			100	5.2	B226-17.5	**SP**		**Wet, fine to medium SAND, with some silt, dark gray, faint hydrocarbon odor (10-90-0).**	
20				11.2	B226-20			**Temporary well installed with screen interval from 15-20 feet bgs. Reconnaissance groundwater sample B226-20120430 collected. Boring terminated at 20 feet bgs and backfilled with bentonite to surface grade.**	
25									
30									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs
Sampler Type:	5 foot core		**Screen Slot Size:**	--	inches
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--	
Total Boring Depth:	20	feet bgs	**Surface Seal:**	--	
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite	
State Well ID No.:	--		**Monument Type:**	--	

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Concrete
Well Location N/S: 75' S of NW corner of canopy
Well Location E/W: 24' W of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG B227

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 11.5 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0						Concrete		**Concrete (9 inches).**	
			80	1.3	B227-02.5	SM-ML		**Moist, sandy SILT to silty fine to medium SAND with trace gravel, grayish-brown, no hydrocarbon odor.**	
5				2.1	B227-05				
			70	4.4	B227-07.5	ML		**Moist, sandy SILT, mottled gray and brown, sulfuric odor at 7 feet bgs, no hydrocarbon odor (80-20-0).**	
10				2.1	B227-10	SM-ML		**Moist, sandy SILT to silty SAND, gray to dark brown, rootlets, faint hydrocarbon odor (50-50-0).**	
						SM		**Wet, silty fine to medium SAND, gray, no hydrocarbon odor (30-70-12).**	
			100	5.1	B227-12.5	ML		**Moist, SILT, gray, no hydrocarbon odor (100-0-0).**	
15									

Drilling Co./Driller: Cascade/Eli
Drilling Equipment: Geoprobe
Sampler Type: 5 foot core
Hammer Type/Weight: -- lbs
Total Boring Depth: 20 feet bgs
Total Well Depth: -- feet bgs
State Well ID No.: --

Well/Auger Diameter: --/2 inches
Well Screened Interval: -- feet bgs
Screen Slot Size: -- inches
Filter Pack Used: --
Surface Seal: Concrete
Annular Seal: Bentonite
Monument Type: --

Notes/Comments:

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Concrete
Well Location N/S: 75' S of NW corner of canopy
Well Location E/W: 24' W of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG | B227

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 11.5 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				4.9	B227-15				
			--	5.1	B227-17.5	SM-ML		**Wet, silty fine to medium SAND with moist SILT interbeds, orange-brown, no hydrocarbon odor (15-85-0).**	
20				6.5	B227-20			**Moist, silty SAND with some gravel, gray, no hydrocarbon odor (35-55-10).**	
								Temporary well installed with screen interval from 12 to 17 feet bgs. Reconnaissance groundwater sample B227-20120430 collected. Boring terminated at 20 feet bgs, backfilled with bentonite, and patched with concrete to surface grade.	
25									
30									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	5 foot core		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Mud
Well Location N/S: 9' N of NW corner of canopy
Well Location E/W: 0' E of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG | B228

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 3 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0			80	2.0	B228-02.5	SM		**Moist to wet, silty fine SAND with trace gravel, brown, no hydrocarbon odor (30-65-5).**	
								Wet, silty fine SAND, orange-brown to gray, no hydrocarbon odor (15-85-0).	
5				4.5	B228-05	ML		**Moist, sandy SILT, mottled gray and red-brown, no hydrocarbon odor (80-20-0).**	
			100	7.1	B228-07.5	SM		**Wet, silty fine to medium SAND, gray to brown, no hydrocarbon odor (20-80-0).**	
				5.6	B228-10	SM-ML		**Wet silty fine to medium SAND with sandy SILT interbeds, olive to red-brown, no hydrocarbon odor.**	
10								**Temporary well installed with screen interval from 4 to 9 feet bgs. Reconnaissance groundwater sample B228-20120430 collected. Boring terminated at 10 feet bgs and backfilled with bentonite to surface grade.**	
15									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	5 foot core		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	10	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	--		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project:	TOC Holdings Co. Facility No. 01-600
Project Number:	0440-004-28
Logged by:	ATL
Date Started:	4/30/12
Surface Conditions:	Mud
Well Location N/S:	2' N of NW corner of canopy
Well Location E/W:	14' E of NW corner of canopy
Reviewed by:	PJK
Date Completed:	4/30/12

BORING LOG B229

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 0.5 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0			90	4.8		ML		**Wet, SILT with some sand, brown to tan, no hydrocarbon odor (90-10-0).**	
5			100	4.2	B229-02.5	SM		**Wet, silty fine to medium SAND, brown to tan, no hydrocarbon odor (15-85-0).**	
				3.1	B229-05				
				3.7	B229-07.5			**Silt layers observed at approximatley 7.8 and 8.8 feet bgs.**	
10					B229-10			**Temporary well installed with screen interval from 5 to 10 feet bgs. Reconnaissance groundwater sample B229-20120430 collected. Boring terminated at 10 feet bgs and backfilled with bentonite to surface grade.**	
15									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	5 foot core		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	10	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Mud
Well Location N/S: 21' N of NW corner of canopy
Well Location E/W: 36' E of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG | B230

Site Address: 2750 West Commodore Way, Seattle, Washington

Water Depth At Time of Drilling: 2 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0						ML		**Moist, sandy SILT with roots and organic matter, dark brown to tan, no hydrocarbon odor (70-30-0).**	
			--	2.8	B230-02.5	SM		**Wet, silty fine SAND, orange-brown, no hydrocarbon odor (25-75-0).**	
5				2.9	B230-05				
			--	4.4	B230-07.5	SM-ML		**Wet, sandy SILT and silty fine to medium SAND interbeds, olive to gray, no hydrocarbon odor (50-50-0).**	
10				4.8	B230-10			**Temporary well installed with screen interval from 5 to 10 feet bgs. Reconnaissance groundwater sample B230-20120430 collected. Boring terminated at 10 feet bgs and backfilled with bentonite to surface grade.**	
15									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	10	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Mud
Well Location N/S: 40' N of NW corner of canopy
Well Location E/W: 16' E on NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG B231

Site Address: 2750 West Commodore Way Seattle, Washington

Water Depth At Time of Drilling: 2 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0						FILL		**Quarry spalls.**	
			100	2.9	B231-02.5	GP		**Wet, GRAVEL with some medium to coarse sand and trace silt, gray-brown, no hydrocarbon odor (5-35-60).**	
						SM-ML		**Wet, silty SAND and sandy SILT interbeds, gray with some orange-brown, no hydrocarbon odor.**	
5				5.9	B231-05	SP		**Wet, fine to medium SAND with some silt, gray to olive, no hydrocarbon odor (10-90-0).**	
			100	5.1	B231-07.5				
						SM		**Wet, silty SAND, gray, no hydrocarbon odor (35-65-0).**	
				6.3	B231-10	ML		**Moist, SILT, gray, no hydrocarbon odor (100-0-0).**	
10								**Temporary well installed with screen interval from 5 to 10 feet bgs. Reconnaissance groundwater sample B231-20120430. Boring terminated at 10 feet bgs and backfilled with bentonite to surface grade.**	
15									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	5 foot core		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	10	feet bgs	**Surface Seal:**	--		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Concrete
Well Location N/S: 7' N of NW corner of canopy
Well Location E/W: 41' W of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG B232

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 5.5 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete (6 inches).**	
			100	5.4	B232-02.5	**ML**		**Moist, fine to medium sandy SILT with trace coarse sand/fine gravel, brown to gray, no hydrocarbon odor (70-25-5).**	
5				6.9	B232-05	**SM**		**Wet, silty fine SAND with trace gravel, dark brown, strong hydrocarbon odor (35-60-5).**	
			80	125	B232-07.5			**Wet, silty fine to medium SAND, gray to dark brown, strong hydrocarbon odor (20-80-0).**	
10				936	B232-10	**ML**		**Wet, fine sandy SILT with rootlets, dark gray-brown, strong hydrocarbon odor (60-40-0).**	
			100	43	B232-12.5				
						SP		**Wet, fine to medium SAND with some silt, dark gray, strong hydrocarbon odor (10-90-0).**	
15									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Concrete
Well Location N/S: 7' N of NW corner of canopy
Well Location E/W: 41' W of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG B232

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 5.5 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				20	B232-15	**ML**		**Moist, SILT, gray, faint hydrocarbon odor (100-0-0).**	
			--	13	B232-17.5				
				5.4	B232-20	**SM**		**Moist, silty fine SAND, gray (40-60-0).**	
20								**Temporary well installed with screen interval from 5 to 10 feet bgs. Reconnaissance groundwater sample B232-20120430 collected. Boring terminated at 20 feet bgs, backfilled with bentonite, and patched with concrete to surface grade.**	
25									
30									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	--		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Concrete
Well Location N/S: 8' S of NW corner of canopy
Well Location E/W: 15' E of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG | B233

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 12 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
0								**Concrete (6 inches).**	
						ML		**Moist, SILT, dark gray and brown, faint hydrocarbon odor (100-0-0).**	
			100	130	B233-2.5	**SM**		**Moist, silty fine to medium SAND, dark brown and gray, faint hydrocarbon odor (40-60-0).**	
5				8.4	B233-05	**ML**		**Moist, fine to medium sandy SILT with wood debris, mottled gray and brown, no hydrocarbon odor (80-20-0).** **Damp to moist, sandy SILT, mottled gray and orange-brown, no hydrocarbon odor.**	
			100	5.4	B233-7.5				
						SP		**Moist to wet, fine to medium SAND with some silt, olive-gray to orange-brown, no hydrocarbon odor (10-90-0).**	
10				5.0	B233-10				
			--	3.8	B233-12.5	**SM-ML**		**Wet, medium to fine SAND with some silt and moist, sandy SILT interbeds, olive gray to tan, no hydrocarbon odor.**	
15									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	5 foot core		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		

SoundEarth Strategies

Project: TOC Holdings Co. Facility No. 01-600
Project Number: 0440-004-28
Logged by: ATL
Date Started: 4/30/12
Surface Conditions: Concrete
Well Location N/S: 8' S of NW corner of canopy
Well Location E/W: 15' E of NW corner of canopy
Reviewed by: PJK
Date Completed: 4/30/12

BORING LOG | B233

Site Address: 2750 West Commodore Way
Seattle, Washington

Water Depth At Time of Drilling: 12 feet bgs
Water Depth After Completion: -- feet bgs

Depth (feet bgs)	Interval	Blow Count	% Recovery	PID (ppmv)	Sample ID	USCS Class	Graphic	Lithologic Description	Well Construction Detail
15				4.4	B233-15				
			--	4.1	B233-17.5	ML		**Wet, SILT, gray, no hydrocarbon odor (100-0-0).**	
				2.8	B233-20	SM		**Wet, silty fine SAND, gray, no hydrocarbon odor (20-80-0).**	
20								**Temporary well installed with screen interval from 10 to 15 feet bgs. Reconnaissance groundwater sample B233-20120430 collected. Boring terminated at 20 feet bgs, backfilled with bentonite, and patched with concrete to surface grade.**	
25									
30									

Drilling Co./Driller:	Cascade/Eli		**Well/Auger Diameter:**	--/2	inches	**Notes/Comments:**
Drilling Equipment:	Geoprobe		**Well Screened Interval:**	--	feet bgs	
Sampler Type:	5 foot core		**Screen Slot Size:**	--	inches	
Hammer Type/Weight:	--	lbs	**Filter Pack Used:**	--		
Total Boring Depth:	20	feet bgs	**Surface Seal:**	Concrete		
Total Well Depth:	--	feet bgs	**Annular Seal:**	Bentonite		
State Well ID No.:	--		**Monument Type:**	--		