APPENDIX A On-Site Exploration Logs

	se Fraction		GW	Well-graded gravel and gravel with sand, little to no fines	Terms Describing Relative Density and Consistence Density Very Loose SPT (2) blows/foot 0 to 4	сy
200 Sieve	of Coar	000000000000000000000000000000000000000	GP	Poorly-graded gravel and gravel with sand, little to no fines	Grained Soils	t
ained on No.	- More than 50% (Retained on No		GМ	Silty gravel and silty gravel with sand		
)% ⁽¹⁾ Reta	Gravels - M		GC	Clayey gravel and clayey gravel with sand	Stiff 8 to 15 Very Stiff 15 to 30 Hard >30	
Nore than 50			sw	Well-graded sand and sand with gravel, little to no fines	Component Definitions	
Coarse-Grained Soils - More than 50% ⁽¹⁾ Retained on No. 200 Sieve	of Coars 4 Sieve		SP	Poorly-graded sand and sand with gravel, little to no fines	Gravel 3" to No. 4 (4.75 mm) Coarse Gravel 3" to 3/4" Fine Gravel 3/4" to No. 4 (4.75 mm) Sand No. 4 (4.75 mm) to No. 200 (0.075 mm)	
Coarse-Gra	50% ⁽¹⁾ or More Passes No.		SM	Silty sand and silty sand with gravel	Coarse Sand No. 4 (4.75 mm) to No. 10 (2.00 mm) Medium Sand No. 10 (2.00 mm) to No. 40 (0.425 mm) Fine Sand No. 40 (0.425 mm) to No. 200 (0.075 mm) Silt and Clay Smaller than No. 200 (0.075 mm)	
	% ا ا			Clayey sand and	(3) Estimated Percentage Moisture Content	+
	Sands		SC	clayey sand with gravel	Component Percentage by Weight Dry - Absence of moisture,	ı
					Trace <5 Slightly Moist - Perceptible	
eve	n 50		ML	Silt, sandy silt, gravelly silt, silt with sand or gravel	Some 5 to <12 moisture Moist - Damp but no visible	
. 200 S	d Clays ess tha			Clay of low to medium plasticity; silty, sandy, or	Modifier 12 to <30 water (silty, sandy, gravelly) Very Moist - Water visible be not free drainir	
ore Passes No. 200 Sieve	Silts and Clays Liquid Limit Less than 50		CL	gravelly clay, lean clay	Very modifier 30 to <50 Wet - Visible free water, usi from below water tab	
- Pas) binpi		OL	Organic clay or silt of low	Symbols	
or More				plasticity	Blows/6" or Sampler portion of 6" Type / Cement ground surface seal	ut (
lls - 50% ⁽¹⁾	ıys r More		МН	Elastic silt, clayey silt, silt with micaceous or diatomaceous fine sand or silt	2.0" OD Split-Spoon Sampler (SPT) Sampler Type Description 3.0" OD Split-Spoon Sampler (SPT) Sampler Type Description (4) Seal Sampler (4) Seal S	
Fine-Grained Soils - 50% ⁽¹⁾ or M	Silts and Clays Liquid Limit 50 or More		СН	Clay of high plasticity, sandy or gravelly clay, fat clay with sand or gravel	Bulk sample 3.25" OD Split-Spoon Ring Sampler 3.0" OD Thin-Wall Tube Sampler (including Shelby tube) Grab Sample (4) [:] :: Dlank casing Sampler (including Shelby tube) (including Shelby tube)	asing
Fine	Liqu		ОН	Organic clay or silt of medium to high plasticity	Portion not recovered (1) Percentage by dry weight (2) Percentage by dry weight (3) Percentage by dry weight	
Highly	Organic Soils		PT	Peat, muck and other highly organic soils	(2) (SPT) Standard Penetration Test (ASTM D-1586) In General Accordance with Standard Practice for Description and Identification of Soils (ASTM D-2488) ATD = At time of drilling ∑ Static water level (date) (5) Combined USCS symbols used fines between 5% and 12%	d for

Classifications of soils in this report are based on visual field and/or laboratory observations, which include density/consistency, moisture condition, grain size, and plasticity estimates and should not be construed to imply field or laboratory testing unless presented herein. Visual-manual and/or laboratory classification methods of ASTM D-2487 and D-2488 were used as an identification guide for the Unified Soil Classification System.



	Exploration Criences Project Number Exploration Number 120126H012 Exploration Number Exploration Number	Log er		Sheet	
roject Name	12012011012	Fround S	urface I	1 of 3 Elevation (ft)	
ocation oriller/Equipm	Snoqualmie, WA	atum ate Start		N/A	2/10/17
lammer Weig		lole Diam			2/19/1/
Depth (ft)	DESCRIPTION	Well Completion Water Level	Blows/6"	Blows/Foot	
	Fill			10 20 30 4	
5	Very moist, grayish brown, silty, gravelly, fine to coarse SAND; woody debris (SM).		3 5 7	▲ 12	
	Alluvium Silty drilling action at 8 feet.				
10 s	Wet, gray, sandy, SILT, trace organics; massive (ML).		1 1 1 1		
S-	Wet, gray, SILT (ML).				
15	No recovery.		2 4 4	8	
S-	Wet, gray, silty, fine SAND; occasional organic rich layer (0.5 to 1 inch thick); finely stratified (SM).		² 2 3 ▲ 5	5	
20	No recovery.				
S-	Wet, gray, sandy, SILT; stratified (ML).		² 2 2 2 4		
25 S	Wet, gray, SILT, trace sand, trace organics; massive (ML).		333	6	
30 J	Shelby tube, no recovery. Pushed SPT sampler into disturbed material from Shelby Tube. Wet, gray, clayey, SILT (ML).				
35 S-	Shelby tube, no recovery. SPT sample in disturbed material from Shelby tube. As above (ML).				
S-	Wet, gray, clayey, SILT; massive (ML).		² ∆ ₃		
Sampler 2" (Pushéd SPT sampler into disturbed material from Shelby Tube. Wet, gray, clayey, SILT (ML). Shelby tube, no recovery. SPT sample in disturbed material from Shelby tube. As above (ML).		2		Logged by Approved

a s ear	s o c i a t e d th sciences	Project Number	Exploration Nu	n Log				Sheet		
inc	200000000000	120126H012	EB-1					2 of 3		
Project Name Location	<u>Snoqualmie</u> Snoqualmie	Mill Site		Ground Datum	Sur	face Ele	evation (ft _N/A)		
Oriller/Equipment	Snoqualmie GDI / D-50 pp 140# / 30"	,		Date Sta			12/19	9/17,12	2/19/1	7
Hammer Weight/Dro	op <u>140#730</u>			Hole Dia	пе	er (III)	_~8 in	cnes		
(ff)	<u></u>			tion	9 5		5.			ofo
Depth (ft) 1 0 Samples Graphic	symb			Well Completion	Blows/6"		Blows	/Foot		Other Tests
	,	DESCRIPTION		Ö	B	10	20	30 4	.0	₹
S-10	Wet, gray, claye	y, SILT; massive (MH).			1	A ₃			ĺ	
Щ					1 2	_3				
45	Wet, gray, silty,	CLAY; faintly stratified (CH).			1					
S-11					2	▲ 3				
50	First 12 inches:	Wet, gray, clayey, SILT to silty, CLAY (MH-CH).		5					
S-12					7 21			≜ 28		
	Last 6 inches. V	Net, gray to brown, fine to medium SAN	D, trace siit (SP).							
55	Wet gray fine t	o medium silty, SAND; massive (SM).			5					
S-13		()			5 7 10		A 17			
		Tokul Creek Delta Deposits								
60	Moist light brow	n, fine SAND, trace silt; massive (SP).			4					
S-14		.,			11		_ :	24		
65	Very moist to we	et, oxidized reddish brown grading to bro	wn fine to medium		9					
S-15	silty, SAND, fair	itly stratified (SM).	wii, iiie to iliculuiii		10 11		≜ 21			
- 70	No recovery.				ļ.,					
	No recovery.				11 15 18			▲33		
- 75		eddish brown, silty, fine to medium SANI	O to fine CAND:							
S-16	massive (SM).	eddish brown, siity, nne to medium SANi	J to line SAND,		5 10 10		20			
	· ·									
Sampler Type (\$\frac{1}{2}" OD Spl	ST): lit Spoon Sampler (SF	PT) No Recovery M	- Moisture				Lo	gged by	: LD	M
·	lit Spoon Sampler (D		Water Level ()					proved I		
Grab Sam		, <u> </u>	Water Level at time of	f drilling (A	(DT					

	2	>	ss	sciences	Project Number	Exploration Nu	n Log				C.	neet		
\leq	1			rporated	120126H012	Exploration Nu EB-1	IIIIDEI					of 3		
Project Locatio		ame		Snoqualmie I Snoqualmie,	Mill Site	_	Ground Datum	Surf	ace Ele	vation _N/				
Driller/	Εqι			GDI / D-50	VVA		Date Sta			_12	/19/1	17,12/	19/17	
Hamm	er \	Neigh	t/Drop	140# / 30"			Hole Dia	met	er (in)	_~8	inch	nes		
(ft)		Se	.일 <u>0</u>				tion							400
Depth (ft)	S	Samples	Graphic Symbol				Well Completion Water I evel	Blows/6"		Blov	ws/F	oot		- -
Ω	I	Š	0 07		DESCRIPTION		မိ		10	20) 3(0 40		gt
		S-17		Wet, brown to red	dish brown, fine to medium SAND, tr	ace silt; massive (SP).		11 15			A 2	7		
	ı							12						
0.5														
- 85	П	S-18		Wet, brown to dar	k brown, silty, fine to medium SAND;	massive (SM).		5 8		1	8			
	H	_						10						
00														
- 90	П	S-19		_	ng down to gray, SILT (ML).	014)		8		A .	19			
	H			Wet, dark brown,	fine to medium SAND, some silt (SP-	·SM).		10						
- 95														
95		S-20		Wet, brown, silty, Wet, brown, fine t	fine SAND (SM). to medium SAND, trace silt (SP).			8 16				▲ 33		
	ľ							17						
					Older Alluvium									
-100	L			Wet gray fine to	medium SAND, trace silt; massive (S	:D)								
	Ц	S-21		Wet, gray, SILT, t	race dropstones (<0.25 inches in diar	meter); massive (ML).		11 10 14			▲ 24			
				Bottom of exploration	on boring at 101.5 feet									
-105														
-110														
-115														
Sa			pe (ST)		. П., -									
L T	_			Spoon Sampler (SPT Spoon Sampler (D &	=	- Moisture Water Level ()						ed by: oved by	LDM U: CJK	
	~		Sample			Water Level () Water Level at time of	drilling (A	TD)			•	•	. 50.1	

		EXPLORATION	BO	RI	NO	3 L	0	3	EB-3	
WELL COMPL	GRAPH	SEDIMENT DESCRIPTION	рертн	SAMPLE	GROUND	STAN	IDARD	PENER/ Blows		SISTANCE 40
	-	Gray-brown silt with scattered organics. (Fill)	-	I		•				
		Mottled tan silt, scattered organics	5 	I	<u> </u>					
		As above with thin peat layers.	_ _ 10	I						
		Gray, micaceous silt.	- - -	L		_				
		As above with abundant organics.	- 15 	I		•				
		As above with scattered organics.	_ _ 20	I						
	<u> </u>	As above with minor gravel.		L						
	- o		25 	Ī						
		BOH @ 26½' Note: 2" PVC - casing;	_							
		10 slot, 2" PVC - screen; 12" flushed monument; sandpacked. Surface El.: 414.97'	30 							
interpr	etation,	onditions depicted represent our observations at the time engineering analysis, and judgment. They are not necess asibility for the use or interpretation by others of information	arily repr	esenta	tive of	other tim	hole, n	nodified locatio	l by geolo ns. We w	gic vill not
			W9222	9A		10/	92			
		Snoqualmie Shallow Aquifer Evaluation Snoqualmie, Washington	Æ		7	A E S	SS AR CIE	OC TH	IATI ES,	ED INC

		EXPLORATION	BO	RI	NG	LO	G	EB-4	
WELL COMPL.	GRAPH	SEDIMENT DESCRIPTION	ОЕРТН	SAMPLE	GROUND	STANDAF		ATION RES	ISTANCE 40
		Gray, fine to medium, sandy gravel, abundant rock fragments, asphaltic roof tile. (Fill)	- - - - - -5	I					
		Dark brown, gravelly silt with scattered organics. (Fill)	_ _ _	I	<u>-</u>	•			
		Gray-brown, fine, sandy silt.	—10 –	I					
7 7 71:		Mottled gray silt with scattered organics.	- - 15	T					
10 10 10 10 10 10 10 10 10 10 10 10 10 1		Mottled gray, micaceous, very fine, sandy silt, scattered organics. Gray, silty, very fine sand, scattered organics.	- - -	I					
		Gray, micaceous, fine sand, some silt, scattered organics, occasional rock fragments.	20 _ _	I		•			
		As above, no rock fragments.	_ 25 	I	1	-			
		Gray, fine to medium sand, overlying gray clay, scattered organics.	_	Ī		•			
.		Gray, very fine, sandy silt, scattered organics. BOH @ 31½' Note: 2" PVC - casing; 10 slot, 2"	30 _	Ι		•			
		PVC - screen; 12" flushed monument; sandpacked.	_ ₃₅						
interpre	etation,	Surface E1.: 418.45' enditions depicted represent our observations at the time engineering analysis, and judgment. They are not necessisibility for the use or interpretation by others of information	arily repre	senta	tive of c	ther times a			
			W9222	9A		10/92			
		Snoqualmie Shallow Aquifer Evaluation Snoqualmie, Washington	Æ		5	ASS EAF SCI	SOC RTH ENC	IATE SES,	INC

Associ		arth Sciences, Inc.		Geolog	gic & N	Monitoring Well Con Well Number	struction Log
	1			Project Number (H120126A		Well Number MW-1	Sheet 1 of 6
oject Na		Snoqualmie Mill S	ite			Location	Snogualmie, WA
evation ater Lev	(Top of evel Eleva		on 5/3/	12		Surface Elevation (ft) Date Start/Finish	~419 4/16/12,4/18/12
	quipmen Weight/l	t <u>Aquatec</u>	h / Air R	otary		Hole Diameter (in)	6 inches
	T	<u> 140# / 3</u>	<u> </u>				
(ft) Water Level	E CA			/s/	6" Graphic Symbol		
i afe		MELL CONCERNIC		S Blows/	Grap Sym		
Š	Š	WELL CONSTRUCT 2'-foot stickup	ION	T		DESC	RIPTION
-		2-100t Stickup			XXX		Fill
				11			
		10-inch-diameter surfa 0 to 18 feet; bentonite		· **		Overba	nk Deposits
		o to 10 leet, bentonite	Criips	11		Very moist, brown, silty fine SAND organics (wood fragments)	to sandy SILT, trace disseminated
5				- 40°		organies (wood wagmento)	
				-			
				-			
,							
´				3		Adding water.	
				-			
				П		Adding water.	
				-		River Cha	nnel Deposits
				-62		Driller reports possible saturated si	Ity fine SAND.
				1			
				H			
				- 5		4 to 5 feet of water in boring after wet, grayish brown, micaceous sill	velding. cy fine SAND.
				(0)		Wet, brown, micaceous fine SAND	fow silt
		6-inch I.D. steel casing	from 2	-		Wet, brown, micaceous fine OAND	, iew siit.
		feet above ground surfa	ace to	- -			
		220.0 1000					
				-		Wet, gray, fine to medium SAND, t fragments).	race silt, trace organics (wood
				1			
				**		Wet, gray, fine to medium SAND, t	race silt, trace organics.
				11			
				725		Increased wood fragments.	
				11			
				707			
				-			
				102		Increased fine sand.	
				1			
				- 102			
						Driller reports heave at 38 feet.	
Sampl	oler Type 2" OD	(ST): Split Spoon Sampler (SPT)	, П	No Recovery	,	M - Moisture	Logged by: SST
		Split Spoon Sampler (D &		Ring Sample		W - Moisture	Approved by:
<u>е</u>		Sample	,	Shelby Tube		Water Level at time of drilling	

10	30		Project KH12	t Number 20126A		lonitoring Well Cor Well Number MW-1	Sheet 2 of 6				
Project		me <u>Snoqualmie Mill S</u> Top of Well Casing)				Location Surface Elevation (ft)	Snoqualmie, WA ~419				
Vater	Level	el Flevation 40 0 has	40.0 has on 5/3/12 Date Start/Finish 4/46/12 4/49/								
		uipment Aquated Veight/Drop 140# / 3	h / Air Rotar 0"	У	***************************************	Hole Diameter (in)	6 inches				
_	vel				2.20						
Depth (ft)	Water Level			Blows/ 6"	Graphic Symbol	·					
_	Wate	WELL CONSTRUCT	ΓΙΟΝ	S M T	0 0	DESCRIPTION					
				6	7/1/1///	Lacuete	ine Deposits				
		6-inch I.D. steel casing	from 2	1		Soft, wet, gray, CLAY/SILT.	me beposits				
		feet above ground surf 223.3 feet	ace to	<u>**</u>							
45				<u> </u>							
				-							
				6 5		Soft, wet, gray, CLAY/SILT, scatte	ered woody debris.				
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50				<u>~</u>							
				1							
				· •							
55				<u>&</u>		Soft, wet, gray, CLAY/SILT, scatte	ered woodv debris.				
				1		, , ,	•				
				**							
				-							
60				+-		No sample. CLAY/SILT washed to	hrough sieve.				
				1		,	•				
				\mathbb{H}		No sample. CLAY/SILT washed to	hrough sieve.				
						,					
65				+		No sample. CLAY/SILT washed to	hrough sieve.				
				1			•				
				65		Soft, wet, gray, CLAY/SILT.					
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Sa	mpler				<u> </u>						
[_	2" OD Split Spoon Sampler (SPT) [] No	Recovery		M - Moisture	Logged by: SST				
[] 3	3" OD Split Spoon Sampler (D &	M) Ria	ng Sample		Water Level (5/3/12) Water Level at time of drill	Approved by:				

Asso	cia	ted	Earth S	Science	es, Inc.		Geo Project Nur	logi	c & N	loni	toring Well Cor	struct	tion Log	
1	-68	<u> </u>	Signa		4		KH12012	26A			MW-1		3 of 6	
Project	Nar	me	Sn	oqual	mie Mill	Site					Location	Snogua	almie, WA	
levatio Vater l	on (* Leve	Top o	of Well Covation	asing)	40 0 b	gs on 5/3	3/12				Surface Elevation (ft) Date Start/Finish	~419 4/16/11	0.4/40/40	
rilling	/Eau	emaiu	ent		Aquat	ech / Air I / 30"	Rotary				Hole Diameter (in)	6 inche	2,4/18/12 es	
lamme	er W	/eigh	t/Drop		140# /	/ 30"		~	1					
₽_	Water Level							76	는 o					
Depth (ff)	erL							Blows/ 6"	Graphic Symbol					
	Wat		WEL	L CON	NSTRU	CTION	S	ш	000		DESC	RIPTION		
			1 1				***		///////	Coff	wet, gray, CLAY/SILT.		7000	
ĺ			6-i	nch I.D.	steel cas	sing from 2				3011,	wet, gray, CLAT/SILT.			
			fee	et above	ground s	surface to								
ļ			22	3.3 feet			165							
	Ì						11							
85							2							
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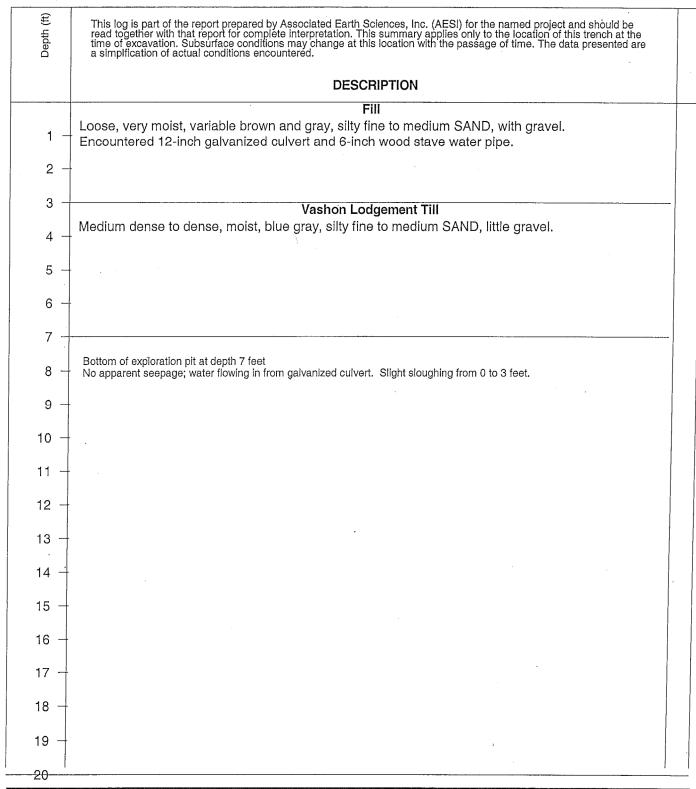
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San	nple	r Typ	e (ST):						//////					
				poon Sa	ampler (S	PT)	No Reco	overy			- Moisture		Logged by:	SST
		3" OI	Split S	poon Sa	ampler (D	& M)	Ring Sa	mple		$\bar{\Delta}$	Water Level (5/3/12)		Approved by:	
r.		Grab	Sample			100	Shelby 7	Tube Sa	mole	<u> </u>	Water Level at time of drilling	og (ATD)		

Associated Earth Sciences, Inc. Geologic & Monitoring Well Construction Level Number KH120126A Project Number KH120126A Should not construct the project Number KH120126A NW-1 Should not construct the project Number KH120126A MW-1 Should not construct the project Number KH120126A MW-1 Surface Elevation (ft) Surface Elevation (ft) Date Start/Finish Hole Diameter (in) Date Start/Finish Hole Diameter (in) MELL CONSTRUCTION Soft, wet, gray, CLAY/SILT. Gelect above ground surface to 223.3 feet Soft, wet, gray, CLAY/SILT.	of 6 VA
Color Colo	VA
Particular (Top of Well Casing) ater Level Elevation ater Level Elevation ater Weight/Drop 40.0 bgs on 5/3/12 Aquatech / Air Rotary 140# / 30" Surface Elevation (ft) Date Start/Finish Hole Diameter (in) Surface Elevation (ft) A/16/12.4/18/1 6 inches PARTICULAR (Inches) WELL CONSTRUCTION Surface Elevation (ft) A/16/12.4/18/1 6 inches DESCRIPTION Soft, wet, gray, CLAY/SILT.	
Illing/Equipment Aquatech / Air Rotary Hole Diameter (in) 6 inches	
WELL CONSTRUCTION S T O-inch I.D. steel casing from 2 feet above ground surface to 223.3 feet WELL CONSTRUCTION S T S T O-inch I.D. steel casing from 2 feet above ground surface to 223.3 feet	
Soft, wet, gray, CLAY/SILT. 6-inch I.D. steel casing from 2 feet above ground surface to 223.3 feet	
Soft, wet, gray, CLAY/SILT. 6-inch I.D. steel casing from 2 feet above ground surface to 223.3 feet	
Soft, wet, gray, CLAY/SILT. 6-inch I.D. steel casing from 2 feet above ground surface to 223.3 feet	
6-inch I.D. steel casing from 2 feet above ground surface to 223.3 feet	
feet above ground surface to 223.3 feet	
5 223.3 feet	
1	
Soft, wet, gray, CLAY/SILT.	
1	
Soft, wet, gray, CLAY/SILT.	
Sampler Type (ST): 2" OD Split Spoop Sampler (SPT)	
Sampler Type (ST): 2" OD Split Spoon Sampler (SPT) No Recovery M - Moisture Logged	d by: SST
□ 3" OD Split Spoon Sampler (D & M) ■ Ring Sample □ Water Level (5/3/12) Approv	
Grab Sample Shelby Tube Sample Water Level at time of drilling (ATD)	

	3				Project Number CH120126A		Nonitoring Well Con Well Number MW-1	5 of 6
Projec	t Name	9	Snoqualmie Mill				Location	Snogualmie, WA
Elevati Water	on (To	p of V	Vell Casing)		40		Surface Elevation (ft)	~419
water Drilling			ion <u>40.0 b</u> α	gs on 5/3/	1Z otary		Date Start/Finish Hole Diameter (in)	4/16/12,4/18/12 6 inches
Hamm			rop <u>140# /</u>	ech / Air R 30"	otal y			O HIGHES
_	<u> e </u>					0-		
Depth (ft)	Fe				/sw	phic		
ے ت	Water Level		VELL CONCEDUR	TION:	Slows/	Graphic Symbol		NIDTION!
	>	٧	VELL CONSTRUC	JION	S M		DESCF	RIPTION
	\vdash	П			C 2	///////	Soft, wet, gray, CLAY/SILT.	
			6-inch I.D. steel casi	ng from 2			,, gray, Om 11/Ola 11	
			feet above ground su	urface to	- 1			
			223.3 feet		-			
165					- 825			
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170					- Page		Soft, wet, gray, CLAY/SILT.	
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					1			
95					- 450		Mat Old Mar.	
					- 122		Wet, gray, CLAY, trace sand, trace	wood fragments.
]			
ĺ]			
]			
		Ш				<i>\(((((((((((((((((((</i>		
	npler 7							
	-		plit Spoon Sampler (SP	_	No Recovery		M - Moisture	Logged by: SS
		000	plit Spoon Sampler (D 8	& M)	Ring Sample			Approved by:

Project	t Name	Snoqualmie Mill	KH	ect Num 120120		Well Number MW-1 Location	Sheet 6 of 6 Snogualmie, WA
Elevati Water Drilling		of Well Casing) evation 40.0 bg ent Aquate	gs on 5/3/12 ch / Air Rota	ary		Surface Elevation (ft) Date Start/Finish Hole Diameter (in)	4/16/12,4/18/12 6 inches
Depth (ft)	Water Level	WELL CONSTRUC	CTION	S	Blows/ 6" Graphic Symbol	DESCR	RIPTION
205		6-inch I.D. steel casing feet above ground su 223.3 feet				Older Snoqualmie Ri Wet, gray to trace brown, fine SAN (silt/clay overstated due to clay coal At 206 feet, color changes from gra	ting of drill tooling).
				16.5		Older Snoqualmie R Wet, brown to grayish brown, fine S wood chips.	tiver Channel Deposits SAND and gravel, with clay, trace
210				5		Wet, grayish brown, GRAVEL, and inferred to be from drill tooling). Wet, brown, fine to medium SAND, chips. (Driller not adding water.)	
9				- - -		Wet, brown, fine to coarse GRAVE	L, trace wood chips, water.
215				<u> </u>		Gray in brown matrix, fine to coarse few silt, decreased wood chips.	GRAVEL with fine to coarse sand
220		5-inch O.D. K-packer 221 feet	220.2 to	- 		Wet, brown, fine to coarse SAND, v (estimated); clast colors: gray, white Continuous heave as drilling is takin	e, orange, brown, and green).
25				- My		Wet, brown, fine to coarse SAND, a	nd fine to coarse gravel.
		5-inch O.D. stainless screen: 0.010-inch sl 221 to 231.1 feet		-		Approximately 6 inches of gray disci- flow.	narge (clay/silt layer?). Decreased
30				-		Wet, brown, fine to coarse GRAVEL (estimated). At 230 feet, cuttings include occasion SILT clasts.	nal brown, fine to medium sandy
		6-inch borehole backf native slough 231.3 to feet.		-	0.0.	Wet, brown, fine to coarse SAND, a Boring terminated at 232 feet. Well completed at 231.3 feet on 4	
35							

	iated Ea	rth Sciences, Inc.	P	Geo roject Nui	logi	c & N	lonito	ring Well Con	struction Log
12			K	H1201				MW-2	1 of 1
Project I Elevatio		Snoqualmie Mill Well Casing)	Site				Location Surface Elevation (ft)	Snoqualmie, WA	
Water Level Elevation Drilling/Equipment Hammer Weight/Drop Geologic Drill / HSA 140# / 30"							Date Start/Finish Hole Diameter (in)		8/13/12,8/13/12 8 inches
€ .	eve				/s	hic			
Depth (ft)	Water Level	WELL CONCEDU	071011	s	Blows/ 6"	Graphic Symbol		25005	NOTION
		WELL CONSTRUCTION Above ground monument					DESCRIPTION		
		8-inch-diameter co		_					Fill
		surface seal 0 to 18 1.5 to 12 feet; med bentonite chips		-	10 10		Moist, b		ilt, trace fine to coarse gravel, tra
5				#	5				nk Deposits
Ž	Z.			1	2 1 1		Wet, gra	ay, SILT, trace clay; 3 inc d organics (grass, etc) (N	h woody debris / peat interval, ML).
		2-inch I.D. Schedul from 2 feet above o			0 0 0	The state of the s	Wet, gra (ML).	ay, SILT, trace clay, scatt	tered organics (grasses, sticks)
10		surface to 12.8 fee	t	-	0 0 1	den en e	Very mo	oist to wet, brownish gray, ganics (ML).	, SILT, few brown sand stringers
Ţ	7	Sand Pack (10/20 silica sand) 12 to 1	Monterey	-	1		Upper 6	inches: Wet brown to g	gray mottled, SILT, few fine to ver
		Silica sand) 12 to	17.8 1991	111	1 2		fine san	d (ML).	wet, gray, very fine sandy SILT,).
15		2-inch I.D. Schedul			2			River Char	nnel Deposits
		screen, 0.020-inch 12.8 to 17.8 feet	slot width,	11	2 4 5		with organized with organized with with organized with the with organized with the with organized with	anics (grasses / seeds) (nches: verv moist. brown	SAND, with interbeds of brown S SW/ML). n, SILT, trace organics (seeds,
		Native heave from 21.5 feet.	17.8 to	-	5 5 8		reeds) (l Lower 8	ML). inches: Gray, wet, fine S ay, fine SAND (SW).	
20					5 5		Slightly (SM at 2	interbedded with brown, s	silty fine SAND, in lower 3 inches
		2		+-	5 7		Boring to	erminated at 21.5 feet.	8/13/10
		WDOE Tag #DHJ-	139	-			Well col	ripleted at 17.0 leet of t	0/10/12.
25				4					
	5			-					
				-					
30				-					
				-					
				-					
35				-					
				_					
				-					
Sam	pler Type		CDT)	A!- 5				Maiakara	
— Ш ——П		Split Spoon Sampler (Split Spoon Sampler (No Rec	-			Moisture Vater Level (8/15/12)	Logged by: SST Approved by:
W P		Sample	- ~ M)	Sheiby		Sample		Vater Level (6/15/12) Vater Level at time of drill	



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

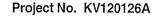
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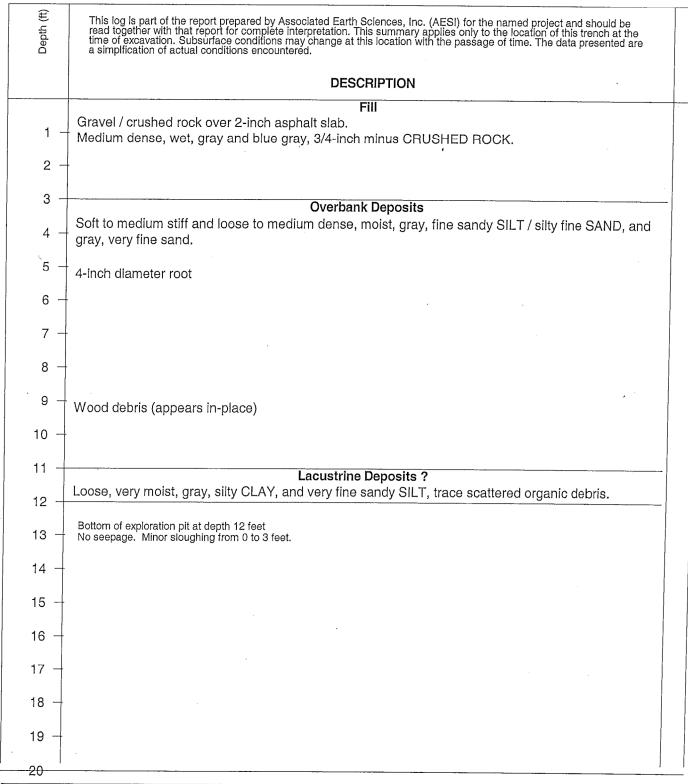








5/7/12



Snoqualmie Mill Site Snoqualmie, WA

Logged by: SST Approved by:





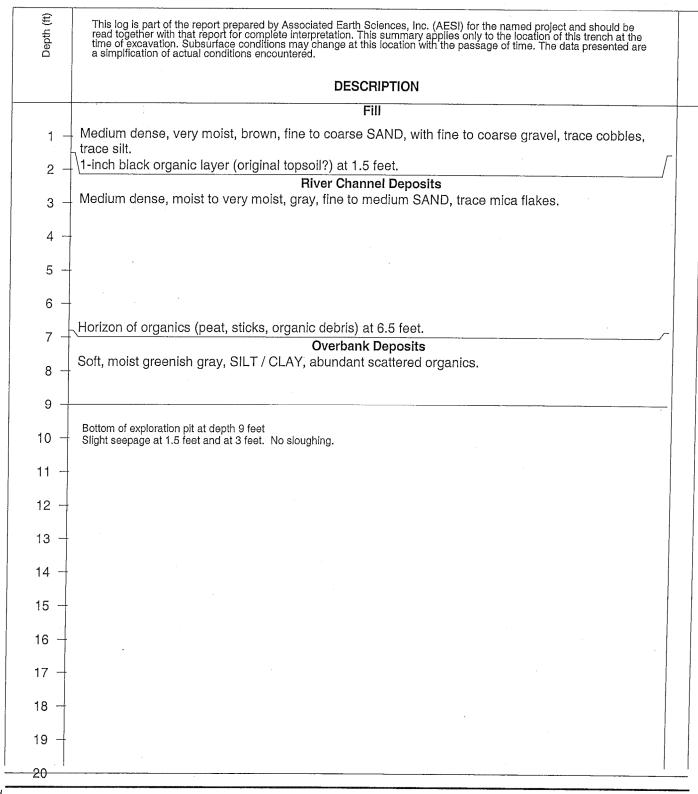


Associated Earth Sciences, Inc.



Project No. KV120126A

5/8/12



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Logged by: SST Approved by:





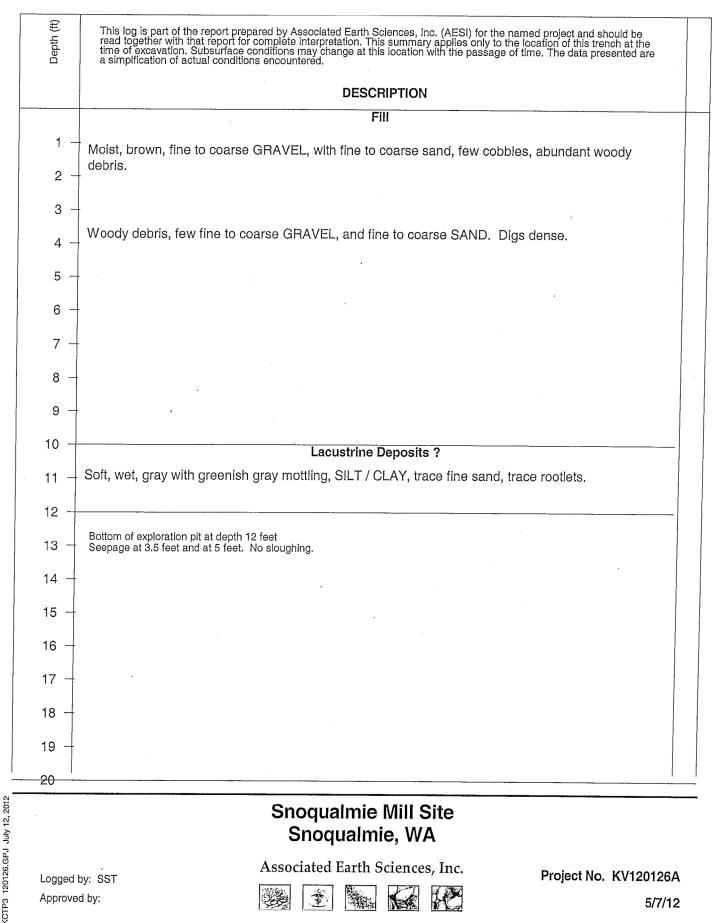




Project No. KV120126A

5/8/12

KCTP3 120126.GPJ July 12, 2012



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

Logged by: SST

Approved by:



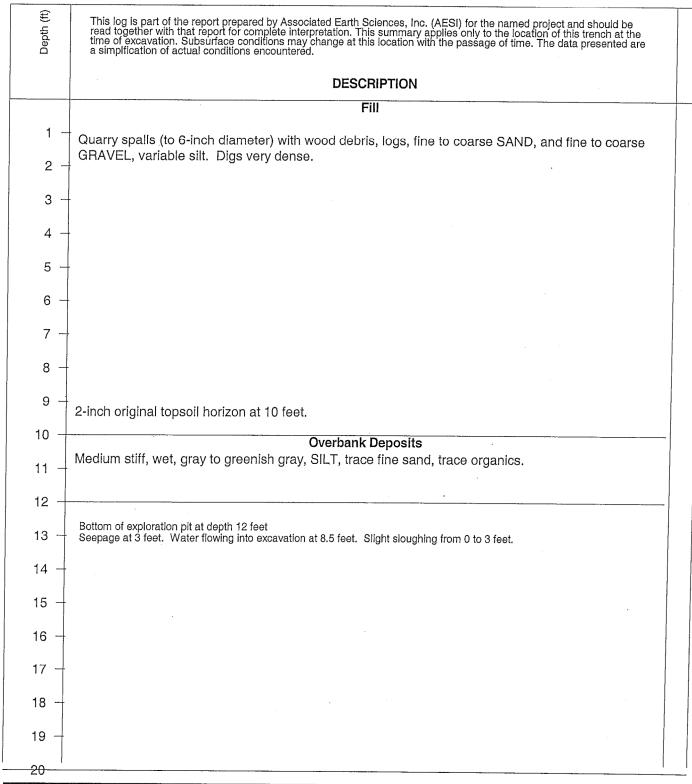






Project No. KV120126A

5/7/12



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Associated Earth Sciences, Inc.

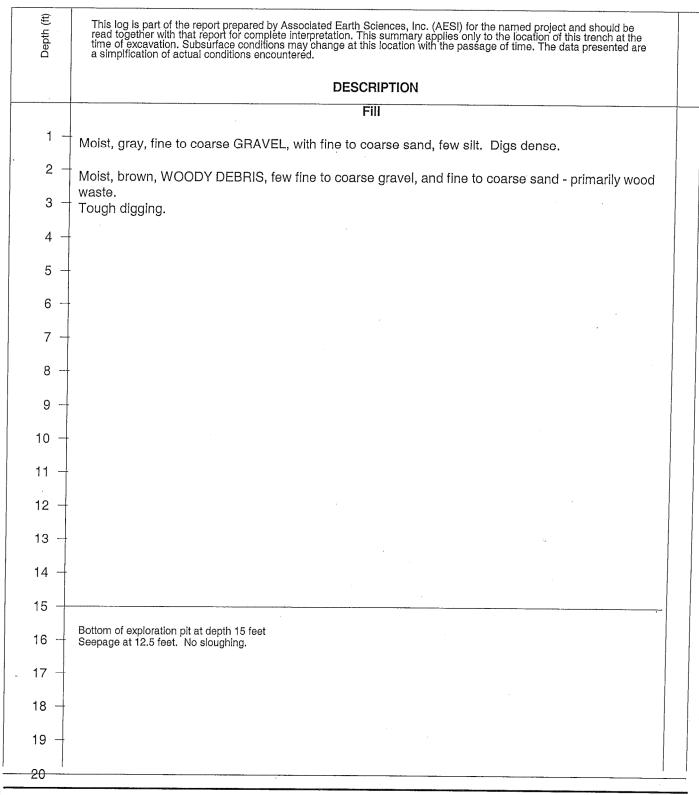
Logged by: SST Approved by:











Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

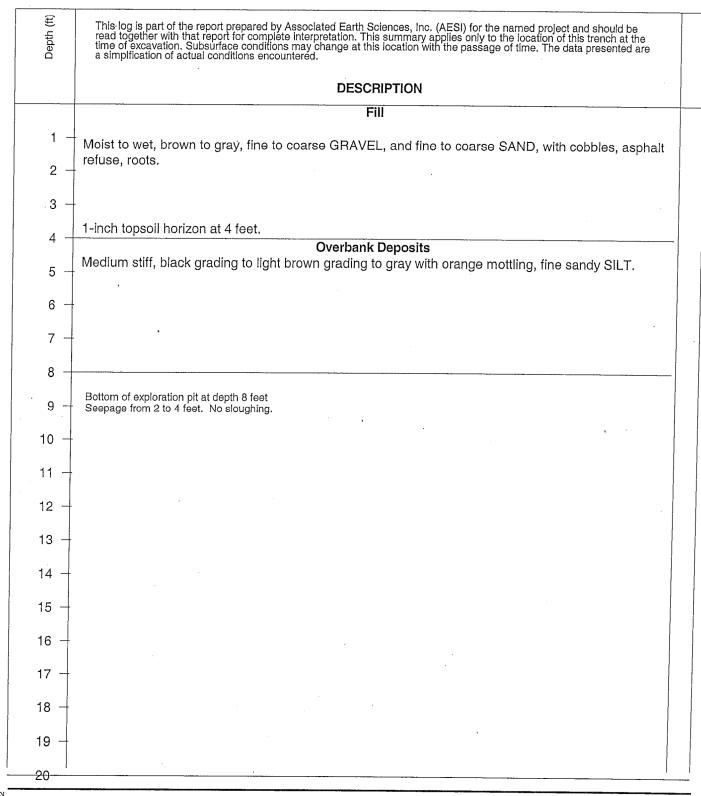






Project No. KV120126A

5/8/12



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

Logged by: SST Approved by:





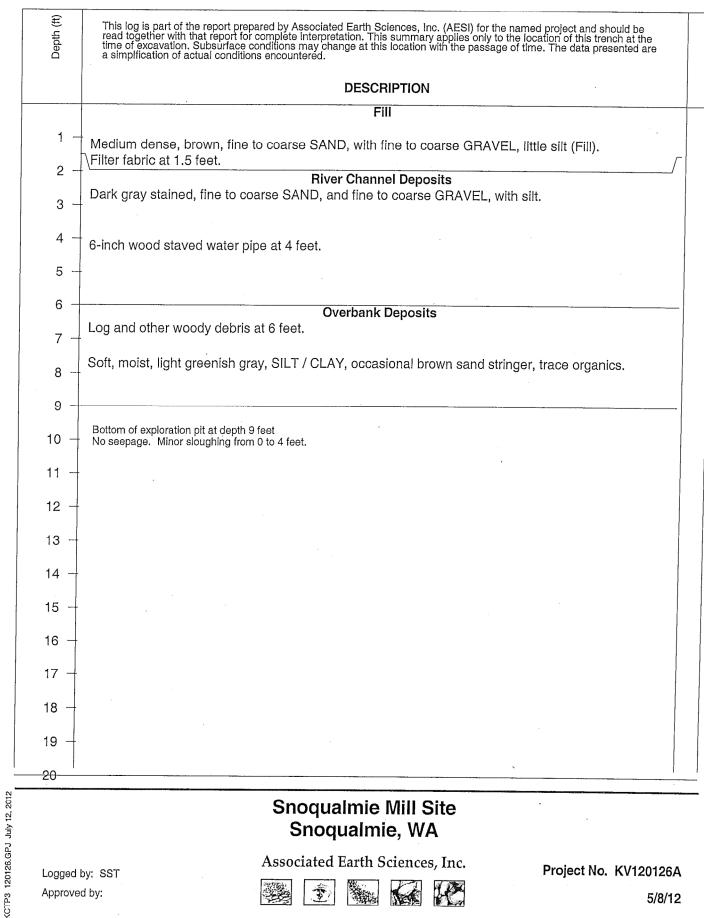




Project No. KV120126A

5/8/12

KCTP3 120126.GPJ July 12, 2012



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

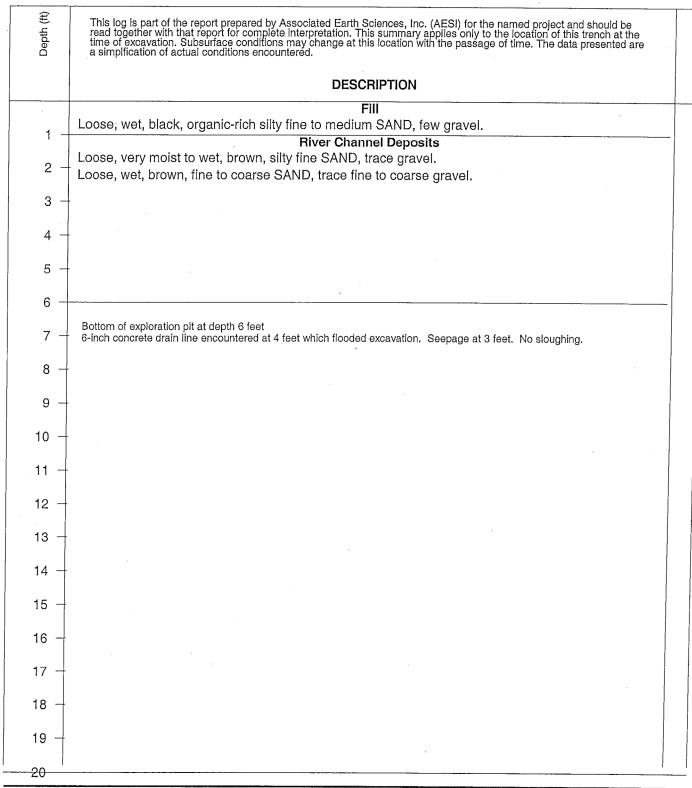
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Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

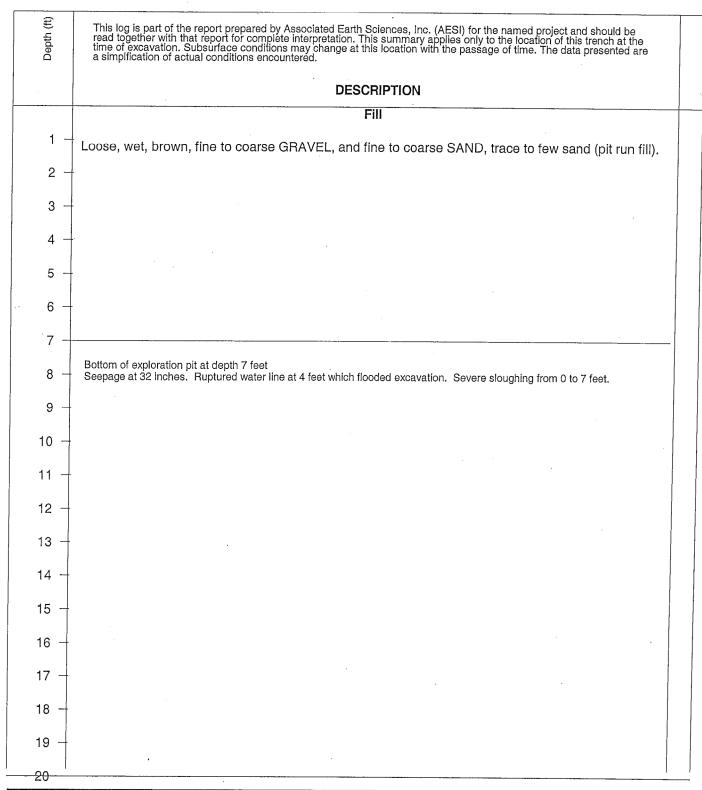
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Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

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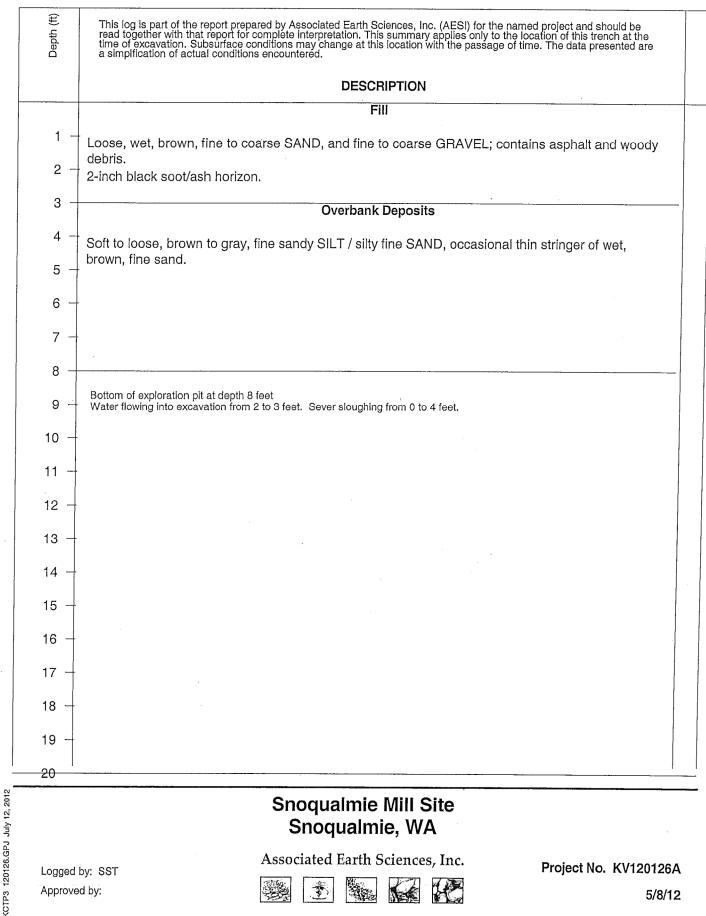






Project No. KV120126A

5/7/12



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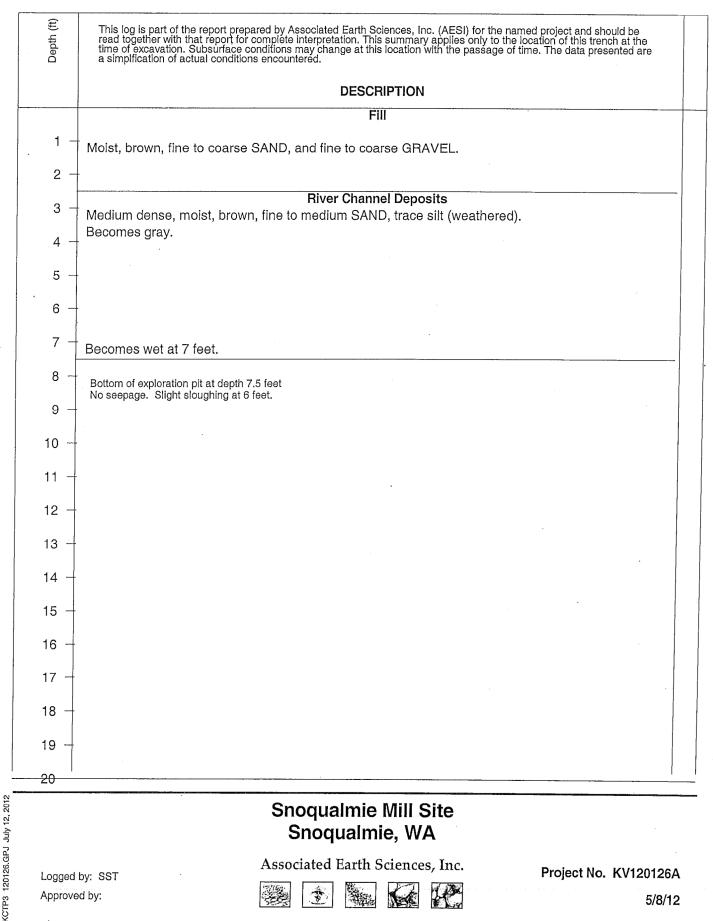
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Logged by: SST Approved by:



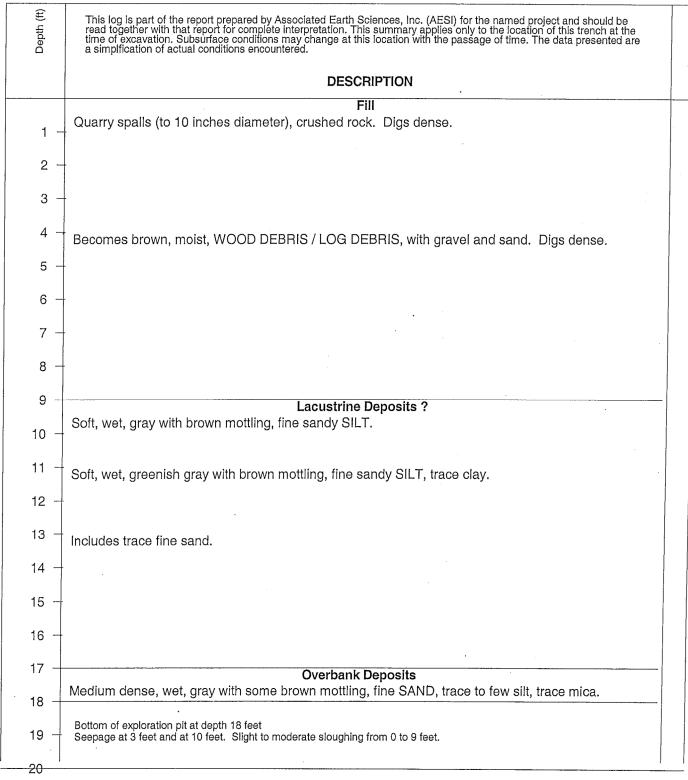






Project No. KV120126A

5/8/12



Snoqualmie Mill Site Snoqualmie, WA

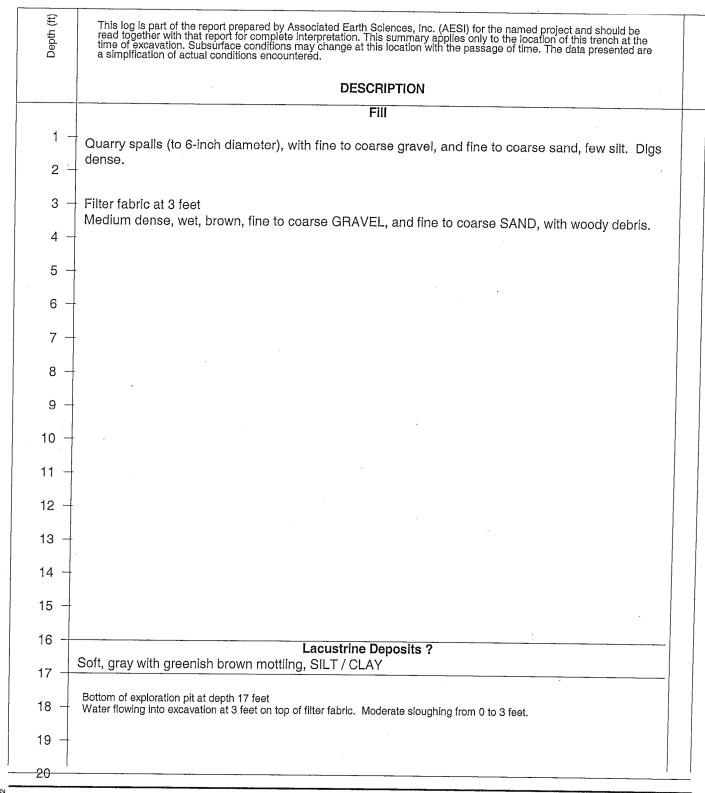
Associated Earth Sciences, Inc.

Logged by: SST Approved by:









Snoqualmie Mill Site Snoqualmie, WA

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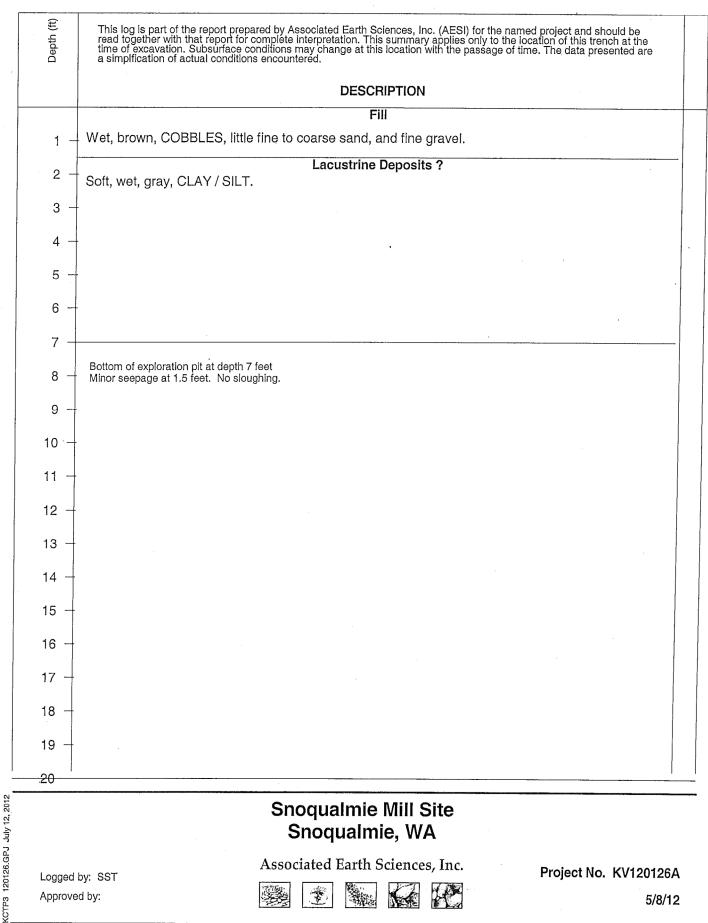






Logged by: SST

Approved by:



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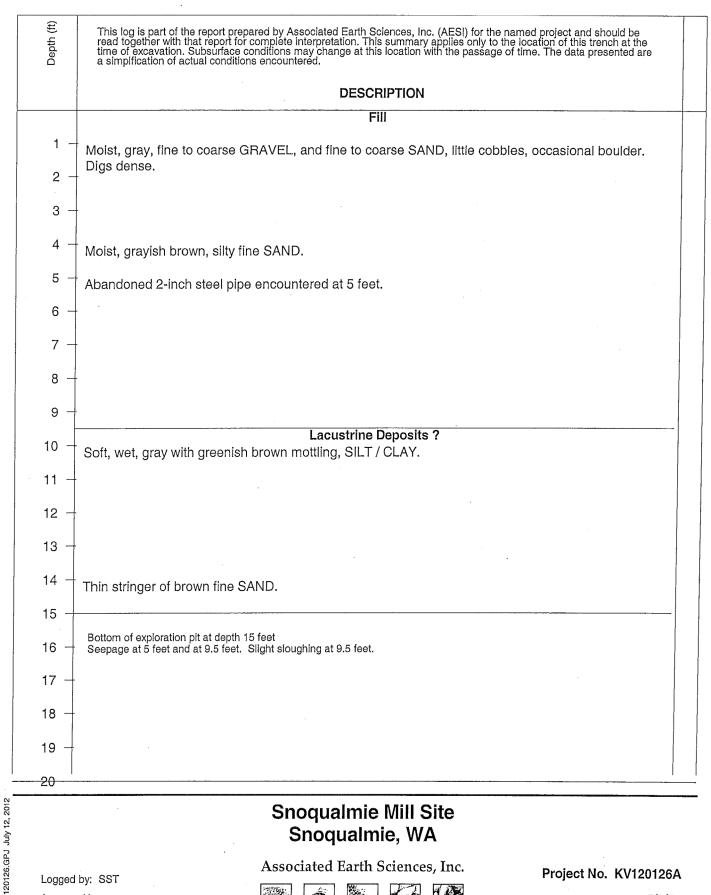












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Logged by: SST Approved by:



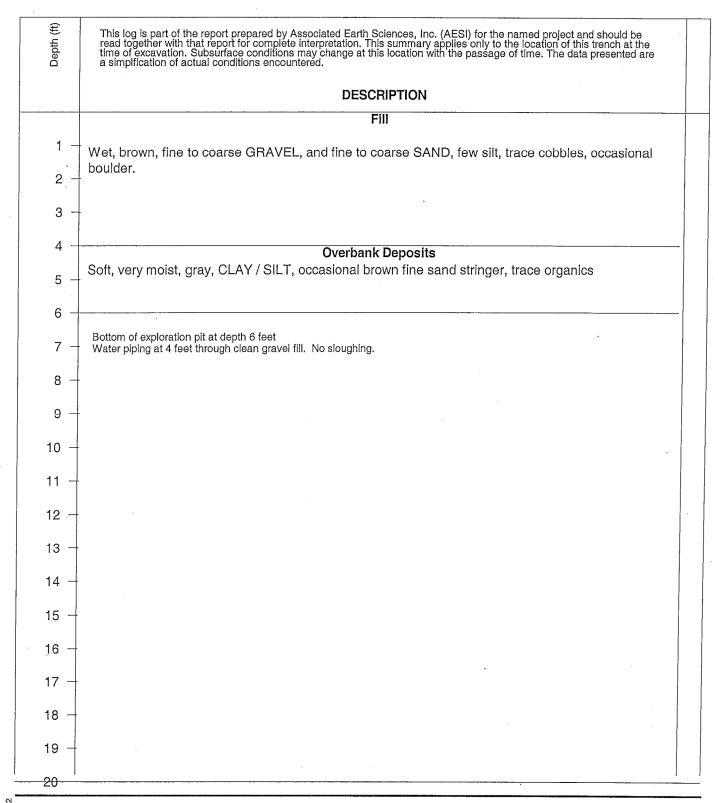






Project No. KV120126A

5/8/12



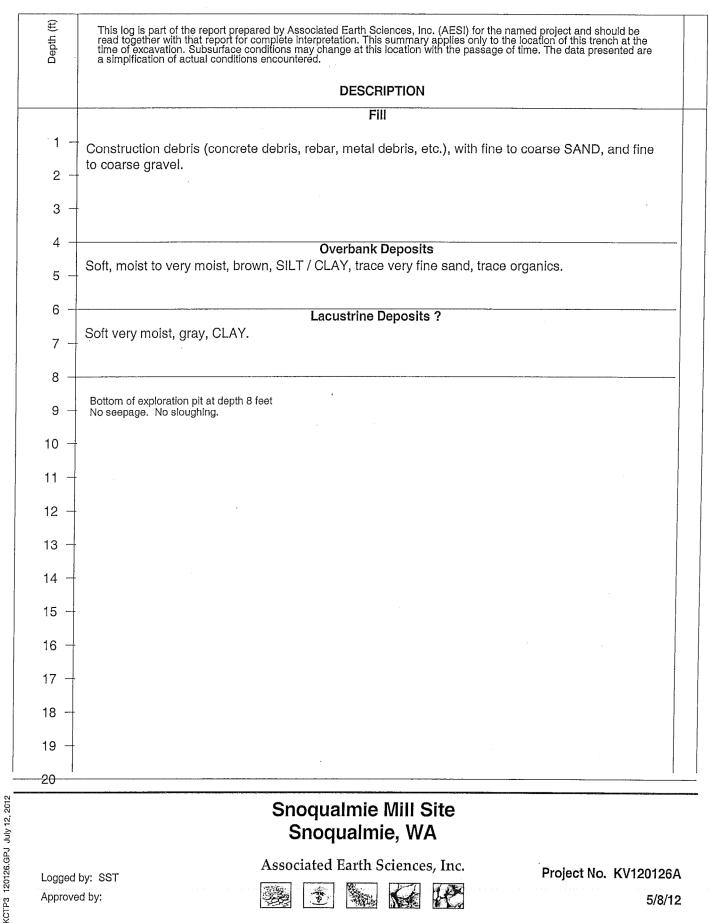
Snoqualmie Mill Site Snoqualmie, WA

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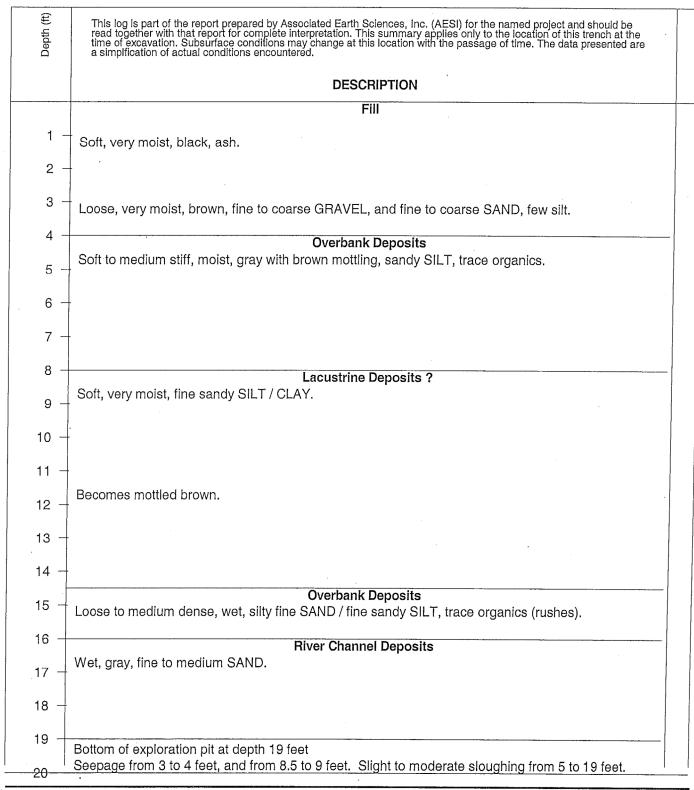
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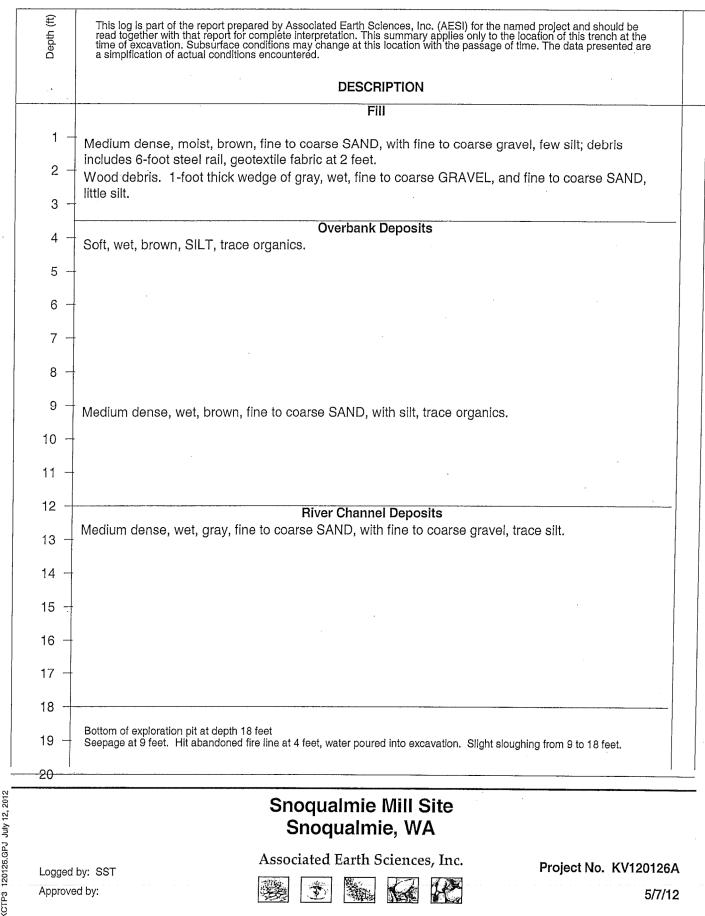




Project No. KV120126A

5/7/12

CTP3 120126.GPJ July 12, 2012



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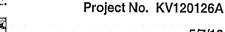
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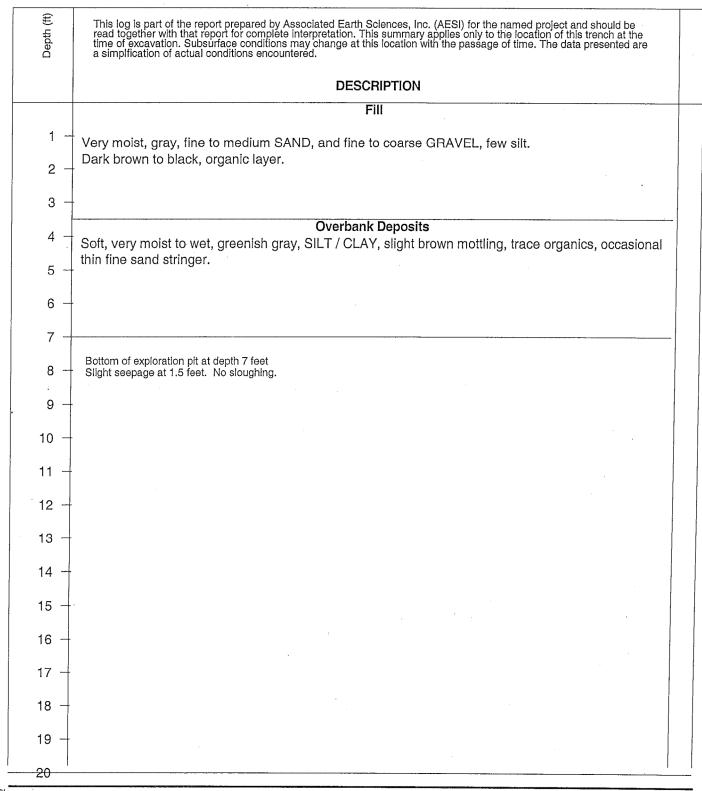












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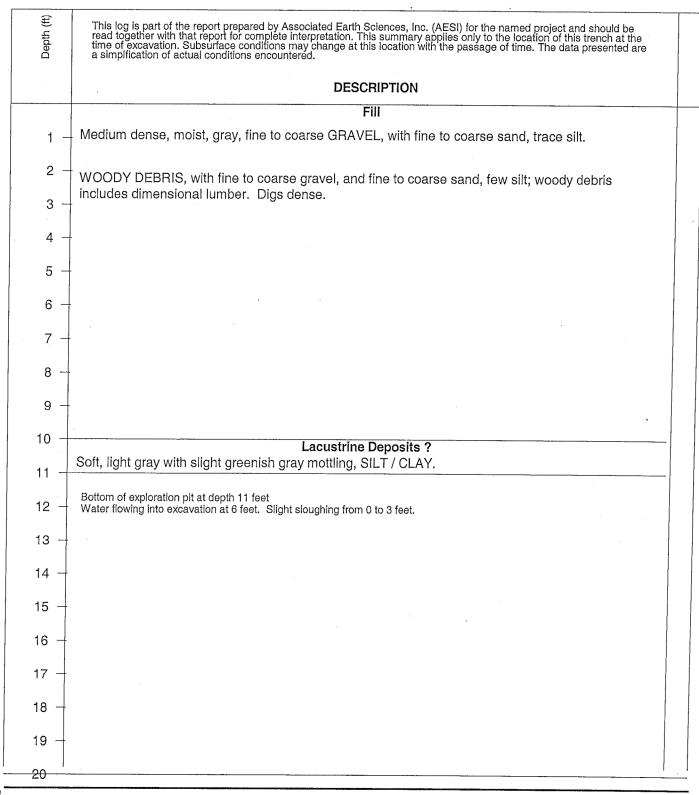
Project No. KV120126A

5/8/12

KCTP3 120126.GPJ July 12, 2012

Logged by: SST Approved by:

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Snoqualmie Mill Site Snoqualmie, WA

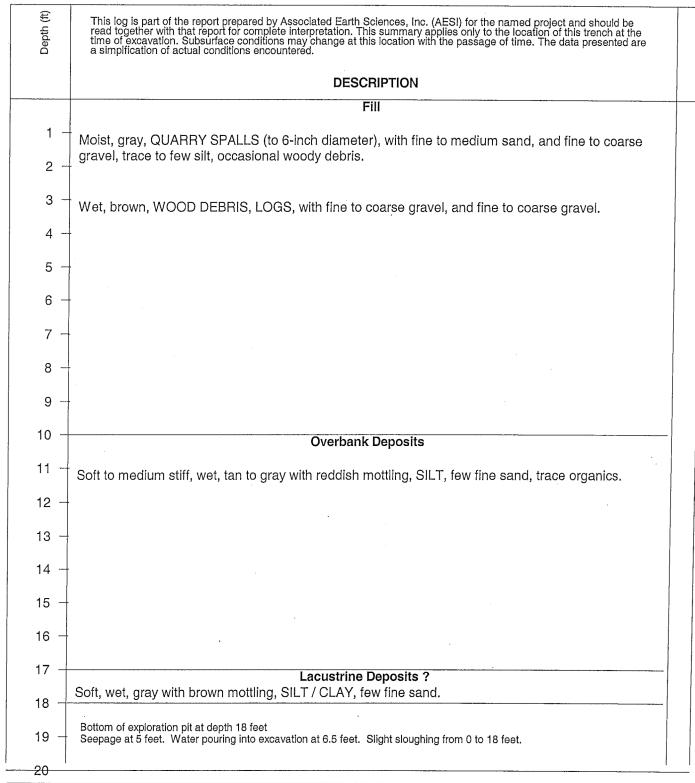
Associated Earth Sciences, Inc.











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Associated Earth Sciences, Inc.

Logged by: SST Approved by:







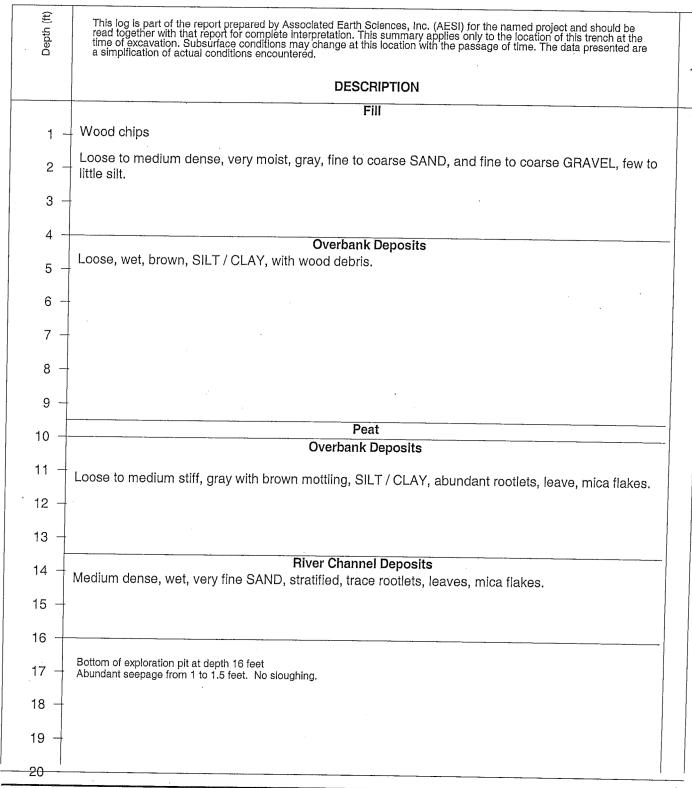




Project No. KV120126A

5/7/12

KCTP3 120126.GPJ July 12, 2012



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Logged by: SST Approved by:







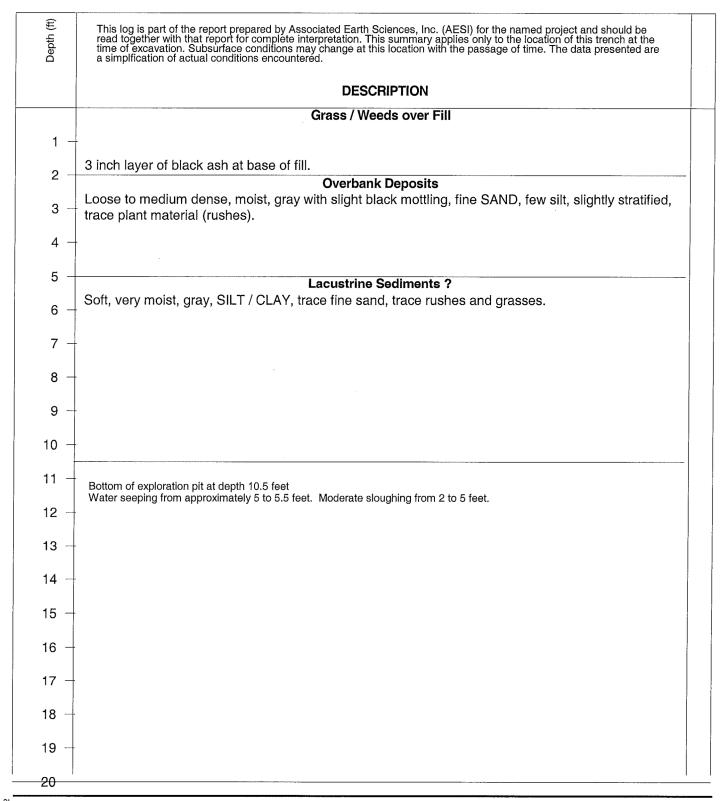




Project No. KV120126A

5/7/12

3 120126.GPJ July 12, 2012



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

Logged by:
Approved by:





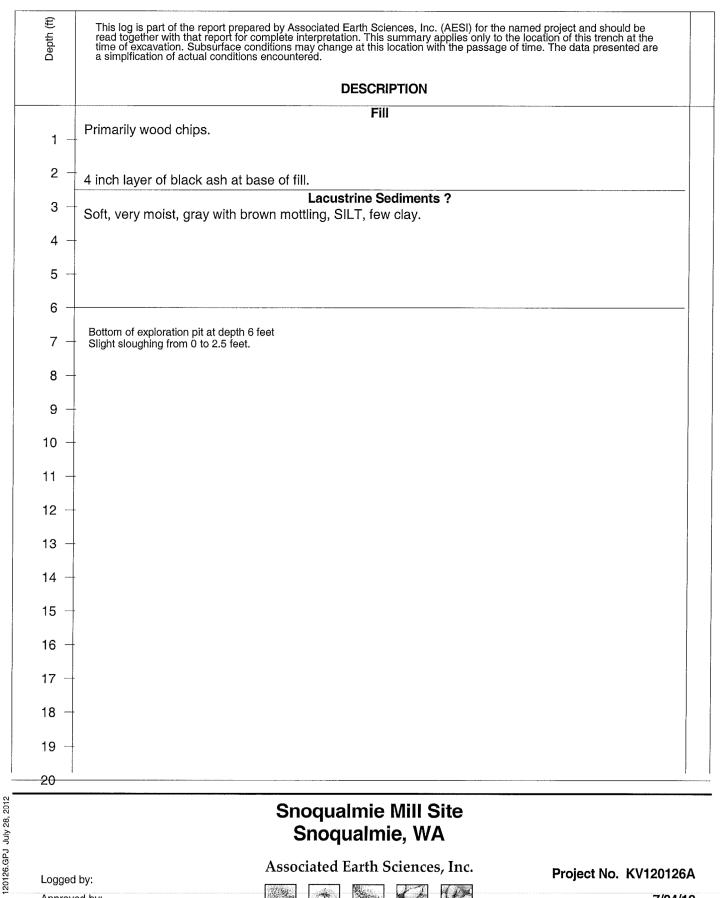






Project No. KV120126A

7/24/12



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

Logged by: Approved by:

KCTP3

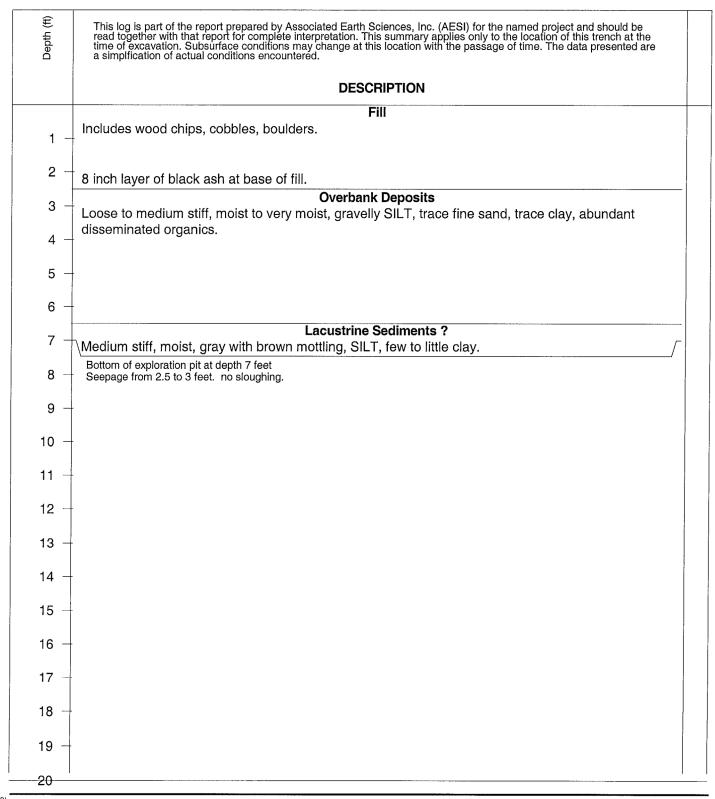








Project No. KV120126A



Snoqualmie Mill Site Snoqualmie, WA

Logged by:

Approved by:





Associated Earth Sciences, Inc.

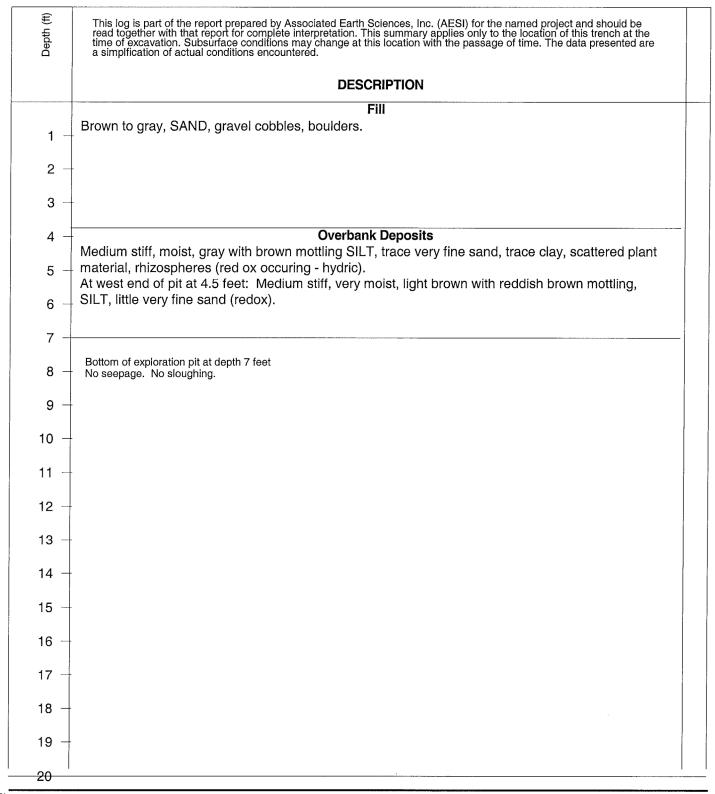




Project No. KV120126A

7/24/12

120126.GPJ July 28, 2012 KCTP3



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

Logged by: Approved by:





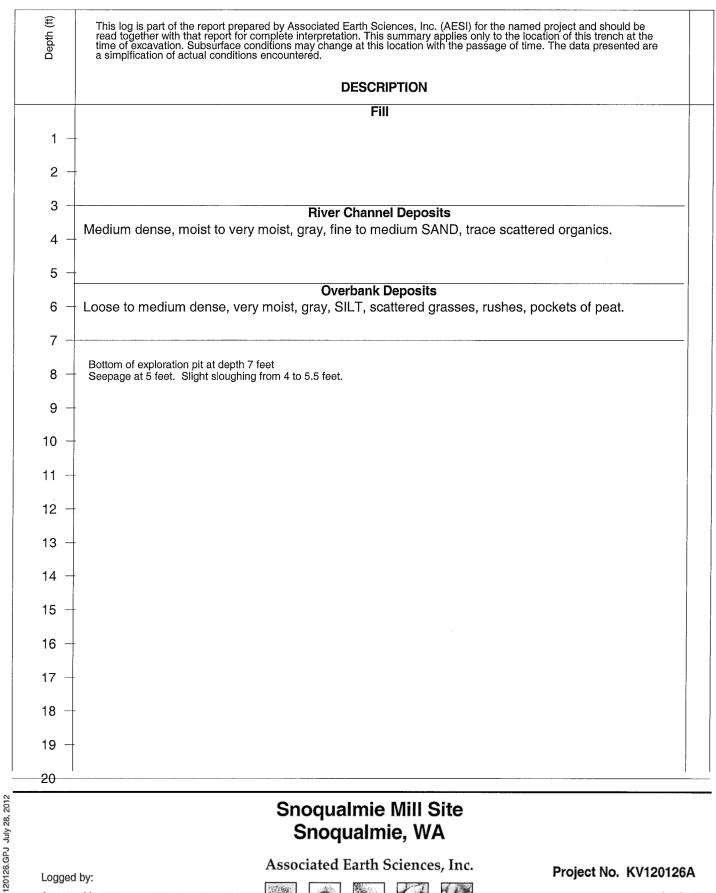






Project No. KV120126A

7/24/12



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

Logged by: Approved by:



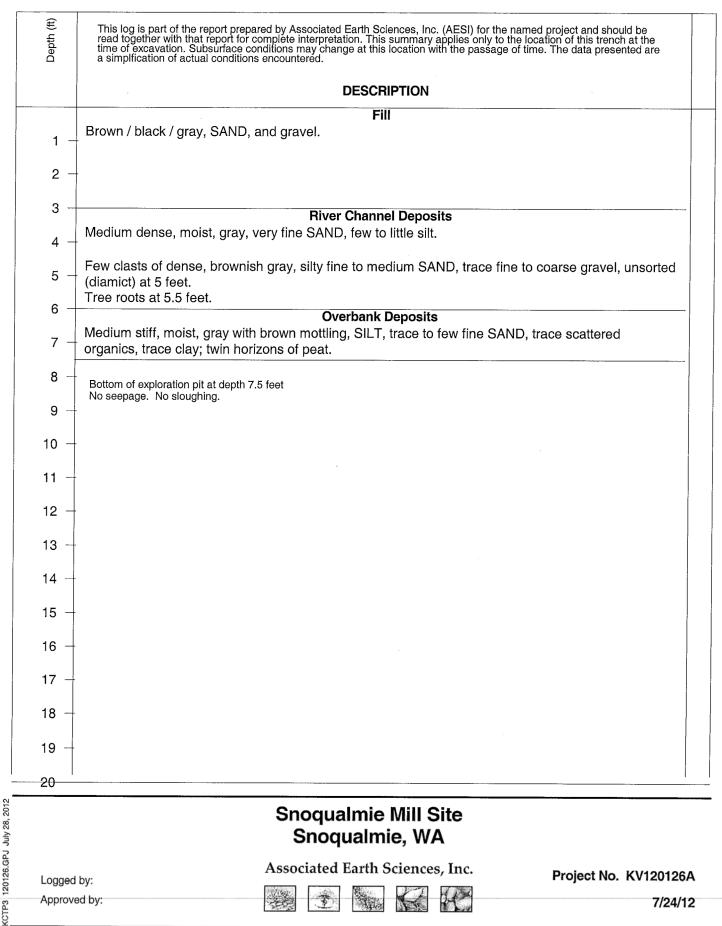








Project No. KV120126A



Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

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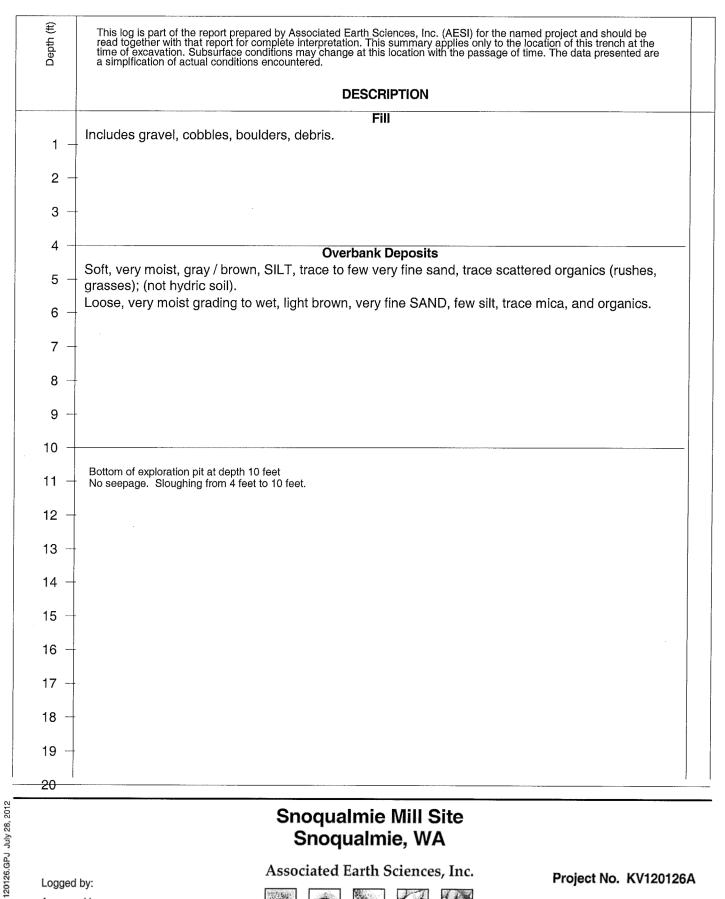












Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

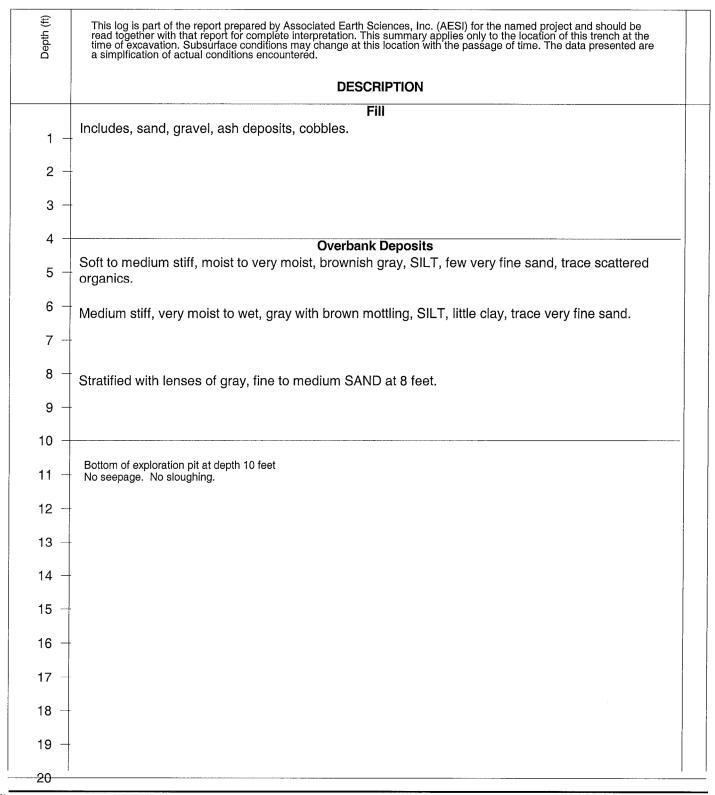
Logged by: Approved by:











Snoqualmie Mill Site Snoqualmie, WA

Associated Earth Sciences, Inc.

Logged by:

Approved by:









Project No. KV120126A

7/24/12

KCTP3 120126.GPJ July 28, 2012

CPT-01

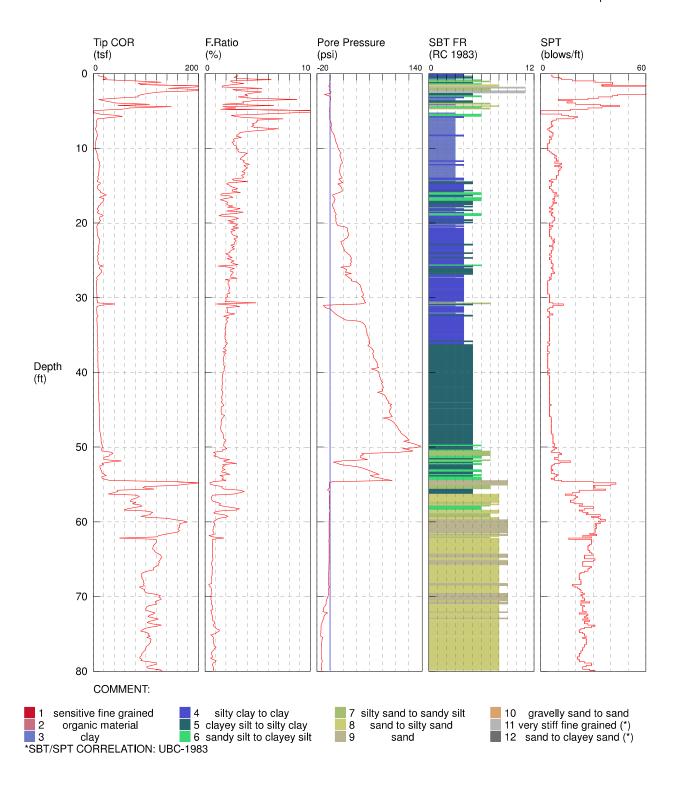
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CUSTOMER: AES LOCATION: Snoqualmie JOB NUMBER: 120126H012 OPERATOR: Romanelli CONE ID: DDG1263

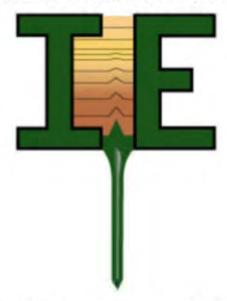
TEST DATE: 12/7/2017 9:08:30 AM

PREDRILL: N/A

BACKFILL: 20% Bentonite Grout SURFACE PATCH: Granular Bentonite Chip



HOLE NUMBER: CPT-01



OPERATOR: Romanelli

CUSTOMER: AES

LOCATION: Snoqualmie

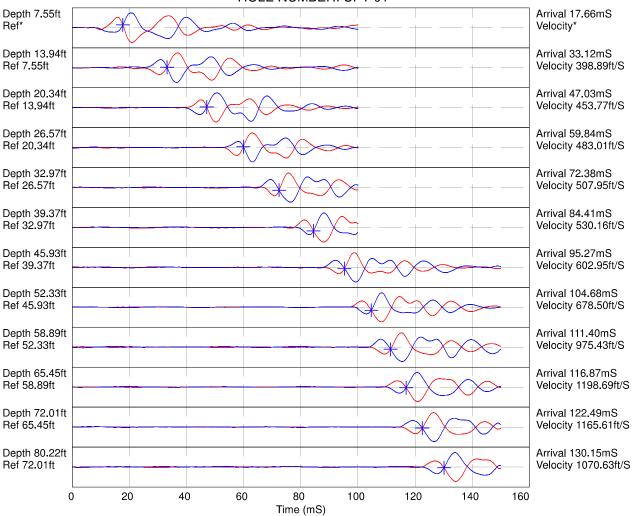
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CPT CONTRACTOR: InSitu Engineering

CONE ID: DDG1263

TEST DATE: 12/7/2017 9:08:30 AM

HOLE NUMBER: CPT-01



Hammer to Rod String Distance (ft): 2.82

* = Not Determined

CPT-02

CPT CONTRACTOR: InSitu Engineering

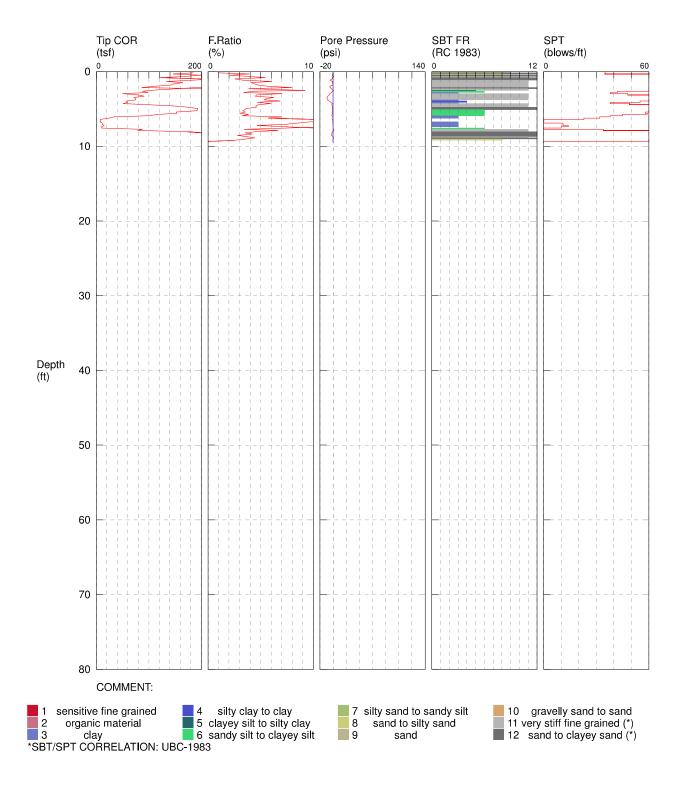
CUSTOMER: AES LOCATION: Snoqualmie JOB NUMBER: 120126H012 OPERATOR: Romanelli CONE ID: DDG1263

TEST DATE: 12/7/2017 10:30:47 AM

PREDRILL: N/A

BACKFILL: 20% Bentonite Grout

SURFACE PATCH: Granular Bentonite Chip



CPT-02a

CPT CONTRACTOR: InSitu Engineering

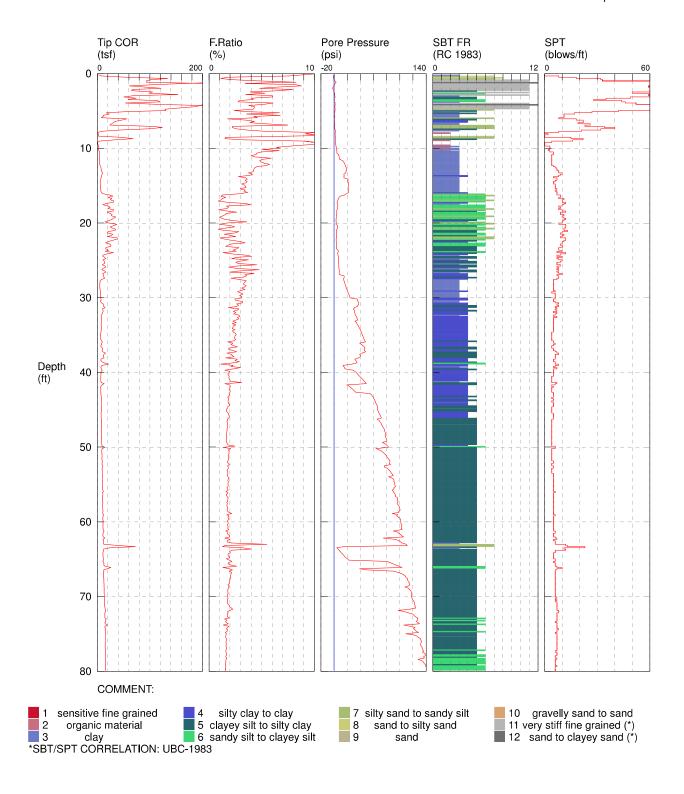
CUSTOMER: AES LOCATION: Snoqualmie JOB NUMBER: 120126H012 OPERATOR: Romanelli CONE ID: DDG1263

TEST DATE: 12/7/2017 10:49:48 AM

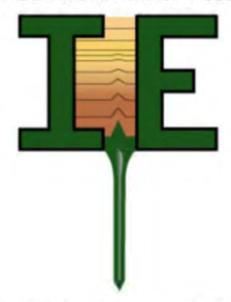
PREDRILL: N/A

BACKFILL: 20% Bentonite Grout

SURFACE PATCH: Granular Bentonite Chip



HOLE NUMBER: CPT-02a



OPERATOR: Romanelli

CUSTOMER: AES

LOCATION: Snoqualmie

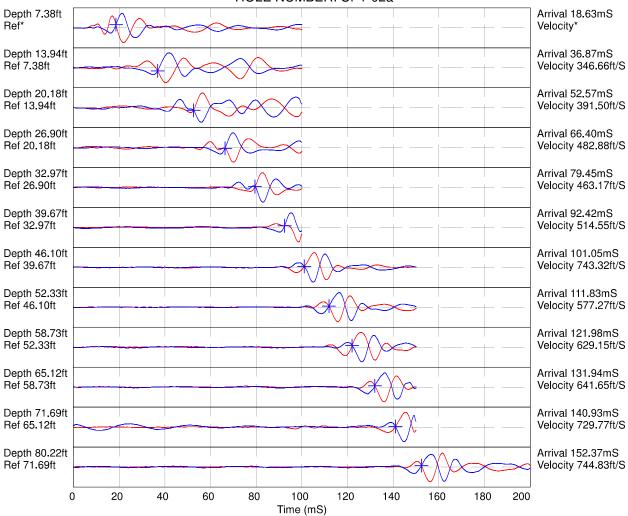
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CPT CONTRACTOR: InSitu Engineering

CONE ID: DDG1263

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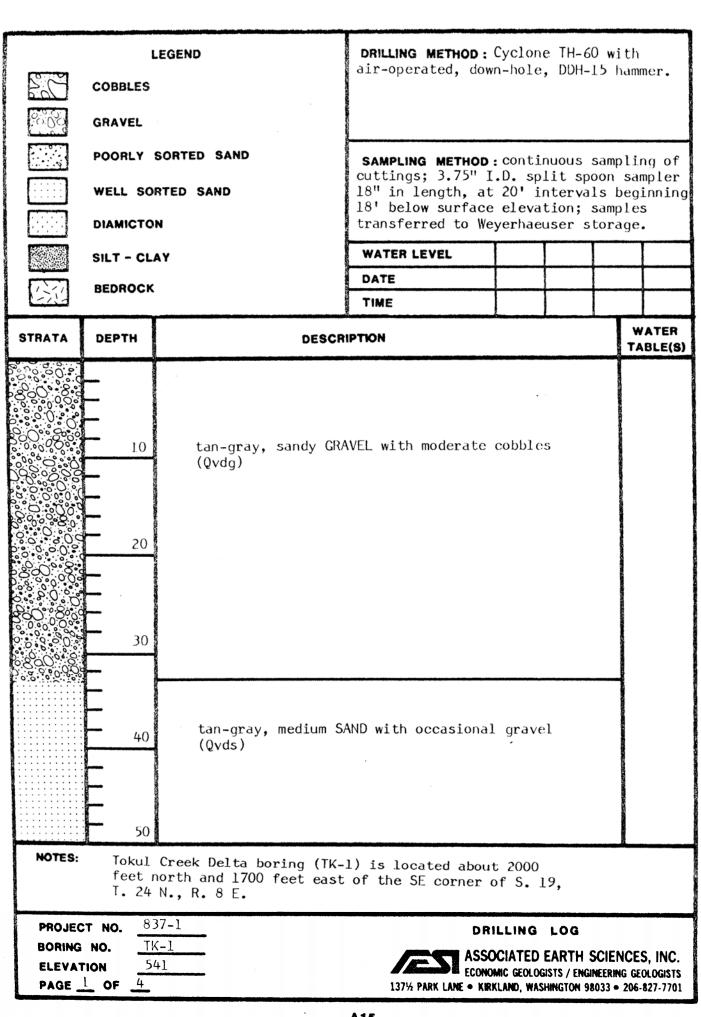
HOLE NUMBER: CPT-02a



Hammer to Rod String Distance (ft): 2.82

* = Not Determined

APPENDIX B Off-Site Boring & Well Logs



	ι	EGEND	DRILLING METHOD:									
500	COBBLES		same									
50,050 60,050	GRAVEL											
	POORLY	SORTED SAND	SAMPLING METHOD) :								
	WELL SO	RTED SAND	same									
	DIAMICTO	N										
	SILT - CL	AY	WATER LEVEL									
1230	BEDROCK		DATE									
	þ		TIME				VATER					
STRATA	DEPTH	DESCR	RIPTION			25	ABLE(
	70 - 80	tan-gray, medium S (Qvds)	SAND with occasion	al grav	el							
	90	tan-gray, sandy GF (Qvdg)	RAVEL with occasio	nal ćob	bles							

PROJECT NO.

837-1

BORING NO. **ELEVATION**

TK-1

PAGE 2 OF

same

DRILLING LOG



1371/2 PARK LANE . KIRKLAND, WASHINGTON 98033 . 206-827-7701

	COBBLES GRAVEL POORLY		DRILLING METHOD: same SAMPLING METHOD: same WATER LEVEL DATE TIME		
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(S)
	110 120 130 140	tan-gray, fine to gravel (Qvds)	AVEL with occasional of medium SAND with occa	sional	
PROJECT BORING	NO.	37-1 K-1 ame	ASSOCIA	ING LOG	RING GEOLOGISTS

	EXPLORATION BORING LOG EB										
GRAPH	SEDIMENT DESCRIPTION	DEPTH	PLETTE	8TAND	ANDARD PENETRATION RESISTANCE slows/Poot 0 20 30 40		ice D				
	Wet, brown, sandy, gravelly silt.	0	ele.421	•							
	Moist, brown, silty sand. Some organics to 12'.	- 5	416'	A							
		10	411'								
		- 15	⊥ 406'								
		= 20	<u></u>		•						
		-	I		•						
	,	25	396'		•						
		- 30	391'		A						
		- 35	386'			A					
		40	381'	Das	1988	1. J					
	Snoqualmie WWTP	88.	11-18G			CIATE H NCES,					

ŧ

		EXPLORATION	BOR	ING	LO	G	EB	#1 C	ont.	
GRAPH	uscs	SEDIMENT DESCRIPTION	DEPTH	DEPTH 3		8TAH 1 G		0W8/P00T	RESISTAN	
		Moist, brown, silty sand. Moist, brown, fine sandy silt BOH at 44'	E	I	.381 76'		•			
		-	-60 -65						•	
		·	-70 -75 -80							
		Snoqualmie WWTP	88	11-1			ASS EAR SCIE		ATE ES, I	

ı

	EXPLORATION	BUN	114			3 #2		_
uscs	SEDIMENT DESCRIPTION	DEPTH	SAMPLE SAMPLE		81.01	RATION RES PS/FOOT 30	SISTANCI 40	
日本のでは、これの	Moist, brown, silty, sandy gravel, with cobbles. Rough drilling. (RR grade fill) Damp, brown mottled grey, sandy gravel, with some silt. Very rough drilling. Qur BOH at 24' Note: Stopped due to lack of penetration by auger.	5 - 10 - 15	Ele.443 L 438' L 428' L 428' L 418'	10	A			70 65 50/
			1–18G	Pos	1988		(d.	

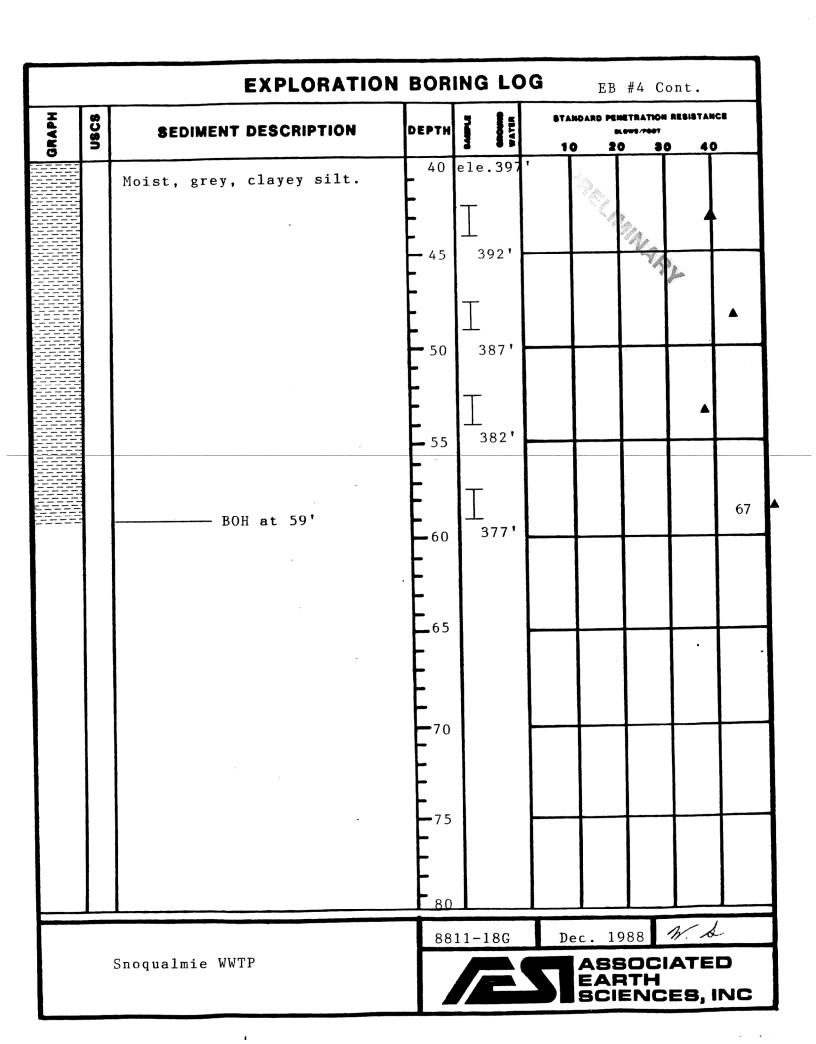
ŧ

		EXPLORATION	BOR	ING	LO	G		EB #3		
GRAPH	USCS	SEDIMENT DESCRIPTION	DEPTH	Brasers	WATER	87A)		OWS/FOOT	RESISTANC	
		Moist, dark brown, silty gravelly sand. Some organics. (RR grade fill)	- - -	ele.			-	REL		
			5	I	38 ' 33 '			•		
			- - 15	T	28 '		•			-
		Moist, brown, silty, well sorted medium sand. Qvr	20	<u></u>	23'		A			
			25	<u></u>	18'					
			30	<u>T</u>	13,			A		-
			35	<u></u>	.08			•		
			40	T	03'			•		
		Snoqualmie WWTP	88	11-1	.8G		ASS EAF SCII	BOCIARTH ENC	ATEI ES, II	

ı

		EXPLORATION	BOR	ING	LC	G	ЕВ	#3 Co	nt.	
GRAPH	USCS	SEDIMENT DESCRIPTION	DEPTH	-	WATER		MDARD PE	Lows/2007	0 4(ica D
		Moist, brown, silty, well sorted medium sand.	- -	Ι	.403	•		<i>₩</i>		
		2" gravel layer with water. Moist to wet, grey-brown,	45 - - - 50	I	98' <u>₹</u> 93'		•			
	1	Moist, grey-brown, silty, very fine sand, with scattered gravel and cobbles. Rough drilling.	<u>-</u>	I	88'					A
		Very wet, grey-brown, silty, clayey gravel, with cobbles.	60	I 3	83'		^			
75-06- 75-06- 75-01-		BOH at 63½'	65	I ₃	78 '					50/4 4
		Note: Stopped due to lack of penetration by auger.	70	3	73 '					
			75							
			80		0.0		100		n: s	
	S	Snoqualmie WWTP	881	1-1	8G		ASE EAF SCII			

	EXPLORATION	BOR	ING LO	G	EB #4	4	
GRAPH	SEDIMENT DESCRIPTION	DEPTH	BARBALE BROWN WATER	87AN 10	BL 04	TRATION RESI	STANCE 40
	Moist, brown, silty, gravelly sand (RR grade fill).	0 - - - 5	ele.437		A	ORE IN	
00000000000000000000000000000000000000	Some water. Wet, grey mottled brown, silt	10					A
.00 6.00 7.00	Moist, grey, clayey, silty sand, with some gravel.	15	T 422'				59
	Damp, grey, clayey silt.	20				_	
	-Moist-	25	412'				^
		30	407'				^
	-Wet-	- -35	402'				^
0.00	2" gravel layer with water. Moist, grey, clayey silt.	40			c. 198	88 % .	1
	Snoqualmie WWTP		Æ				red 3, INC



	EXPLORATION	BOR	ING LO	G	EB	#5		
GRAPH	SEDIMENT DESCRIPTION	DEPTH	ULLVA BRADUS FLATTE	8TAN0 _10	AND PENET	TRATION R		
	Forest duff and cobbles. Very rough drilling. Moist, grey mottled brown, silt, with trace scattered gravel.	0 - - - - 5	ele.437'		•	PAR		7
	Moist, grey, clayey silt. Smooth drilling. Rva	10				A	•	
	-Wet- -Moist-	20				•	A	
	-Wet- -Moist-	-30 -35	412' I 407' I 402'					
		40	I				•	
	Special mic NUTP	88	11-18G		1988 ABB		W &	
	Snoqualmie WWTP		Æ	2	ASS EAR SCIE	TH	E8, I	NC

	EXPLORATION	N BOR	ING LO	G	EB #5 C	Cont.	
GRAPH	SEDIMENT DESCRIPTION	DEPTH	STATE OF THE PARTY IN	97AH 10	DARO PENETRATIO SLOVE/FOOT 20 8		
	Moist, grey, clayey silt. Smooth drilling. Quq -Wet- BOH at 59' Note: No groundwater or bedrock.		ele.397'		20 3 A		
		88	11-18G	De	c. 1988	3/1	
	Snoqualmie WWTP				ABSOC EARTH BCIENC	IATED	

	EXPLORATION	BOR	ING LO	G	EB #6		
DECS USCS	SEDIMENT DESCRIPTION	DEPTH		8TAM	8L998/	ATION RESISTA	
	Forest duff with cobbles.	0	ele.439	 			
	Wet, grey/brown, silty, gravelly sand, with some cobbles.	- - 5	434'			40.	A
		10			ļ		58
	Wet, grey, clayey silt. Smooth drilling.	-	Ι				
	·	1 5	424' T			A	
	Damp, grey, fine sandy, silt. Wood Moist to wet, grey, silt, with trace scattered gravel.	20	⊥ 419'				
	Qvq	25	414'				
		30	409'				53
		35	J 404'				61
		-	I				55
		88	811-18G	Dec	. 1988	B.C.	1
	Snoqualmie WWTP		Æ			CIATE H NCES,	INC

		EXPLORATION	BOR	ING L	.00	3	EB #	#6 Con	t.	
DRAPH	USCS	SEDIMENT DESCRIPTION	DEPTH	3 8 3 10 20 30						
		Moist, grey, silt. Very hard drilling.	40	ele. 39	99		PAR			64
		Very dark grey to black bedrock. BOH at 50'	50] 389'				•		50/ 2
		Note: Stopped due to lack of penetration by auger.	55							
			60							
			70							
			- - 75							
			80						2-1	
		Snoqualmie WWTP	88	11-180	G		. 198 ASS EAR SCIE		ATE ES, I	

		LEGEND	20111110			
(C) (C)			DRILLING METHOD:			
لفقا	SANDY	GRAVEL WITH COBBLES	Reverse Air			
\$.00°	SANDY	GRAVEL	SAMPLING METHOD:			
	POORLY	SORTED SAND				
	WELL SORTED SAND		Continuous			
17.02	DIAMICTO					
	& collisioners:					
	SILT - CL	200 St. 200	WATER LEVEL DATE			
经过	BEDROCK	SILTY	TIME			
STRATA	DEPTH	DESCRI	IPTION	WATER		
/////				TABLE(8)		
		Silty, sandy, wood der	bis. (Fill)			
	_	Poor sample recovery.				
	10					
/////// Kristof	· · · · ·					
		Brown, dry, slightly silty, fine to coarse sand with gravels and wood fragmwents.				
6.6.6.00	20	Brown, dry, cobbly, sandy gravels.				
	_					
		Becoming moist at 28'				
	30	becoming moise de 20				
	_					
8.0.8.80	_					
	-					
\$ 5°	_			_		
ŀ		Brown, moist, gravelly, downward with less grav	, fine to medium sand. Fining vels with depth.			
	50	Cobbles and boulders be	etween 49-52'			
NOTES:						
PROJECT	-	013A	DRILLING LOG			
BORING N		<u>-A1</u> 50	ASSOCIATED EARTH SCIE	NCES, INC.		
PAGE 1	· ***		ECONOMIC GEOLOGISTS / ENGINEERI 1374 PARK LAME • KIRKLAND, WASHINGTON 98033	MG GEOLOGISTS		

	ı.	EGEND	DRILLING METHOD:				
202	SANDY	GRAVEL WITH COBBLES	Reverse Air SAMPLING METHOD: Continuous				
85.00 85.00	SANDY (RAVEL					
	POORLY	SORTED SAND					
	WELL SO	RTED SAND					
	DIAMICTO						
	SILT - CL	s. c-res-or-re:	WATER LEVEL				
	BEDROCK	*337 13 13 13 13 13 13 13 13 13 13 13 13 13	DATE				
(2)(1)	BEDHOCK	SILTY	TIME				
STRATA	DEPTH	DESCR	PTION		WATER TABLE(8)		
		Brown, moist, fine to	medium sand 52-54'				
نزب ، ذب		Cranite boulders at 54	.'	,			
2.5/10/06		Dry, brown, silty, gra	evelly, fine to coa	rse sand			
	60	Grey bedrock. (Refusal	1)		·		
		TD 57'	•				
		10 37		* ;			
	70						
·							
	- 80						
					_		
		•					
	90						
	1.00						
NOTES:							
PROJECT NO. E93013A DRILLING LOG							
BORING NO. EB-A1 ELEVATION BORING RED. ASSOCIATED EARTH SCIENCES, INC. ECONOMIC GEOLOGISTS / ENGINEERING GEOLOGISTS							
PAGE 2 OF 2 137½ PARK LANE • KIRKLAND, WASHINGTON 98033 • 206-827-7701							

Colora

LEGEND			DRILLING METHOD:			
25	SANDY	GRAVEL WITH COBBLES	Reverse Air			
	SANDY G	RAVEL	SAMPLING METHOD:			
	POORLY S	SORTED SAND				
	WELL SORTED SAND		Continuous			
(1.1.1.1 (1.1.1.1)	DIAMICTO					
	SILT - CL	t constant to	WATER LEVEL			
			DATE			
经过	BEDROCK	SILTY	TIME			
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(S)	
0000000		Brown, dry, gravelly	cobbles.			
\$ 0000°						
	10	Brown, moist, gravell	y, fine to coarse	sand with		
		cobbles.	• .	• .		
0.000						
305,025	20	Brown, dry, gravelly	cobbles.			
20 C O S	F	Brown, dry, graverry				
	L					
500000 000000	30					
,	I	Brown, dry, sandy, c	obbly gravels.			
0000	}-		,			
0 0000	40	Brown, moist, gravel	ly fine to coarse	e sand.		
0000	L	Brown, moist, graves Coarsening downward	with cobbles below	w 45 feet.		
	-					
	50					
NOTES:						
PROJE	CT NO. E	93013A		RILLING LOG		
E	BORING NO. ER-A2 ELEVATION SOURCE SECONOMIC GEOLOGISTS / ENGINEERING GEOLOGISTS (CONOMIC GEOLOGISTS / ENGINEERING / ENGI					
	1 of 2		137% PARK LANE • N	(IRKLAND, WASHINGTON	98033 • 206-827-7701	

LEGEND		DRILLING METHOD	:			
SANDY GRAVEL W	ITH COBBLES	Reverse Air				
SANDY GRAVEL				_		
POORLY SORTED SAI	AD .	SAMPLING METH	00:			
WELL SORTED SAND		Continuous				
DIAMICTON						
V CONTROL	PEAT	WATER LEVEL			```	
SILT - CLAY	•	DATE				
BEDROCK	SILTY	TIME				MATER
STRATA DEPTH		NOITH				ABLE(S)
STRATA DEPTH	moist fine to	medium sand wi	th scatte	ered		
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		t. fina to coar	se sand.	Becom ng	ing	
medium	to coarse sand	y, fine to coar d with gravels.	ses.	0		
0.00 occasio	onal very delise	11- fine	to coars	e sand		
D. Brown,	moist, silty,	gravelly, fine nd clay between	56-58 fe	et.	/	
1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
Grey b	edrock.					
TD 65'	(Refusal)				1	
70	•				1	
- 1						
- I						
80					. 1	
- 55						
90						
1 1 1		•				
1 - 1						
	·					
100						
NOTES:						
					•	-
			DRILL	MG FO	G	
PROJECT NO. E93013A			ME ACCOMA	NG LO	TH SCIE	NCES, IN
PROJECT NO. E93013A BORING NO. EB-A2 590		Æ	ME ACCOMA	TED EAR	TH SCIE	PRING 1 TO 1 AL LAND

		LEGEND	DRILLING METHOD:			
2,2	SANDY	GRAVEL WITH COBBLES	Reverse Air			
6000 6000	SANDY	GRAVEL				
	POORLY	SORTED SAND	SAMPLING METHOD			,
	WELL SO	WELL SORTED SAND Continuous				
750P	DIAMICTO					
			WATER LEVEL		,	
	SILT - CL	- Carrier - Carr	DATE			
12次	BEDROCK	SILTY	TIME	·	,	
STRATA	DEPTH	DESCRI	PTION		1	WATER TABLE(8)
1000.						
		Brown, dry, sandy, gra	velly, cobbles.		1	
0000						
30°° (°	10	Cobbly, boulders at 12	Cobbly houlders at 12'			
\$.000 n.						
2°		Cobbly, boulders at 16) '			
	20					
76050						
70,0000		Cobbly, boulders at 26	-28'			
$5^{\circ}0.00$	30	Brown, moist, sandy gr	avel with cobbles.	Containing	and the second	
000000	_	very dense fine sand 1 Slightly silty 34-36'				-
200000		January January 34 30				
0.0000	40					
O.O.	_	•		- ·		
0000		Containing some clay at 46-47' Coarsening downward into slightly sandy gravels at				
C.00000	50	48-50 feet.				
NOTES:						
						-
PROJECT BORING	TOT	3013A 3-A3	DRIL	LING LOG		
ELEVATION IN THE PROPERTY OF T	TO	80		NATED EARTH SC		
PAGE 1 OF 3 ECONOMIC GEOLOGISTS / ENGINEERING GEOLOGISTS 137% PARK LANE • KIRKLAND, WASHINGTON 98033 • 206-827-7701						

	LE	GEND	DRILLING METHOD:		
25	SANDY G	RAVEL WITH COBBLES	Reverse Air		
%.00	SANDY GI	RAVEL			
POORLY SORTED SAND SAMPLING METHOD:					
Continuous Continuous					
	DIAMICTON				
	SILT - CLA	SAPERATE:	WATER LEVEL		
	BEDROCK	SILTY	DATE		
	5.5110,011		TIME		WATER
STRATA	DEPTH	Grading into brown, n	RIPTION		TABLE(8
	60 70 80	Grading into medium Brown, moist, slight cobbles. Increase i	tly silty, sandy gr n cobble content w	ravel with	
	90	cobble content wit	gravel with cobbles h depth.		
	100	Diown, mozes, or			
NOTES) ,				
		T00012 A	E	RILLING LOG	
BORIN	ECT NO IG NO ATION _	EB-A3 580	ESI AS	SSOCIATED EARTH ONOMIC GEOLOGISTS / ENC KIRKLAND, WASHINGTON S	INSERING GEOLOGI

	16	GEND	DRILLING METHOD:			
তেত্ৰ		RAVEL WITH COBBLES	Reverse Air			
6.00 6.00	SANDY GF		11551100			
	POORLY S	ORTED SAND	SAMPLING METHOD	•	-	
	WELL SOR	TED SAND	Continuous			
	DIAMICTON			T .	T .	1
	SILT - CLA	Y PEAT	WATER LEVEL		`	
	BEDROCK	SILTY	TIME			
12X1	BEDITO		TIME			WATER
STRATA	DEPTH	DESC	RIPTION		T	ABLE(8)
	120	Brown, moist, grave Grey, dry, silty, a (Crushed Bedrock) TD $118\frac{1}{2}$ ' (Refusal)	lly, fine to coarse	sand.		
	140					
NOTE	150					
BOR	JECT NO. ING NO. VATION E 3 OF 3	E93013A EB-A3 580		DRILLING ASSOCIATED ECONOMIC GEOLOG • KIRKLAND, WAS	EARTH SCIE	Maria Including

	L	EGEND	DRILLING METHOD:		
200	SANDY	GRAVEL WITH COBBLES	Reverse Air		
<u>0000</u>	SANDY G	RAVEL			
	POORLY	SORTED SAND	SAMPLING METHOD:		
	WELL SO	RTED SAND	Continuous		
	DIAMICTO	N		, v	
	SILT - CL	AY PEAT	WATER LEVEL		
7.27	BEDROCK	West, 200	DATE		
	· .		TIME		
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(S)
0000 0000 0000 0000		Brown, dry 1-2" size	gravels.		
00000000000000000000000000000000000000				dinament de la companya de la compa	·
	10	Brown and grey, sandy boulder at 6'	, gravelly, cobbles.	Granodiorite	
00000	10	bourder de s		•	
	-				
0.00.00					
0000	20	·			
		•.			
PO 000	- 30				
000000000000000000000000000000000000000		Brown, moist to dry,	cobbly, sandy gravel	. Containing	
	E	some clay at 33-35 fo	eet.		1
0000000	40				
	F				
	E	•			
000000000000000000000000000000000000000	50				
NOTES:					
PROJEC BORING		93013A EB-A4		ING LOG	NUES INU
ELEVAT	ION	580	ASSOCIA ECONOMIC 137% PARK LANE • KIRKLAN	ATED EARTH SCIE GEOLOGISTS / ENGINEERII ID. WASHINGTON 98033 a	AC CEOFOCIZIZ
PAGE	OF 4		121.33 LWKY FVIST & WINNTYN	IV, HANISTUIUN 30033 9	TAG. 071.1107

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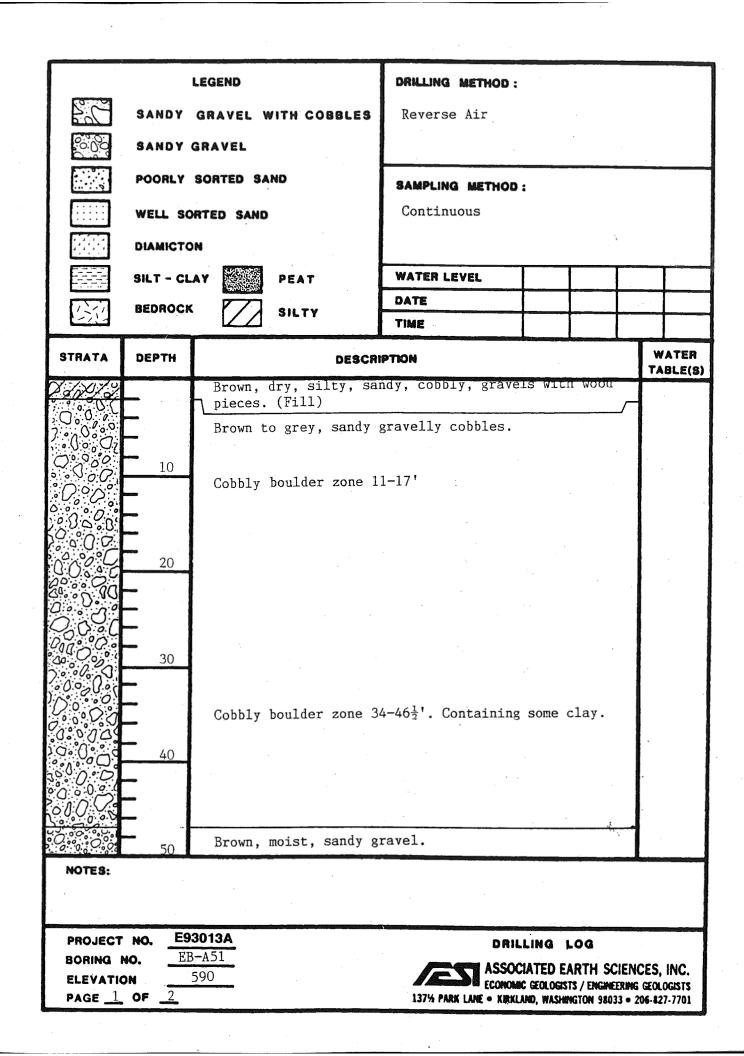
		LEGEND	DRILLING METHOD:		
22	SANDY	GRAVEL WITH COBBLES	Reverse Air		
50.00 50.00	SANDY	GRAVEL			
	POORLY	SORTED SAND	SAMPLING METHOD		
	WELL SO	HTED SAND	Continuous	•	
1000	DIAMICTO	DN			·
	SILT - CL	ATT COVER	WATER LEVEL		
	BEDROCK	(2000) 1200 (1200)	DATE		
	BEUNOCK	SILTY	TIME		
STRATA	DEPTH	DESCRI	PTION		WATER TABLE(S)
*0.0.0.0.0 0.0.0.0.0					
	_	As above			
	60				
	_	•			
	70				
	_				
		Gravelly, medium to co	arse sand lavers a	t 76-78' and	
0.000000000000000000000000000000000000	- 80	80-82 feet.		. 70 70 411.	
30000					
0000		Brown, dry, gravelly, sand with cobbles.	slightly silty, fir	ne to coarse	
	90				
	_	D		1	
00000	_	Brown, moist, gravelly scattered cobbles.	, medium to coarse	sand with	
00000	100				
NOTES:					
PROJECT		8013A	DRIL	TING FOG	
BORING ELEVATION		3-A4 30	ASSOC	TATED EARTH SO	CIENCES, INC.
PAGE 2	STATE OF THE PARTY		1374 PARK LANE . KIRKLI	C GEOLOGISTS / ENGINI UND, WASHINGTON 980	

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9					
		LEGEND	DRILLING METHOD:		
23	SANDY	GRAVEL WITH COBBLES	Reverse Air		
<u></u>	SANDY	GRAVEL			
	POORLY	SORTED SAND	SAMPLING METHOD:		
	WELL SO	ORTED SAND	Continuous		
	DIAMICTO	ON		\ \	
	SILT - CL	AY PEAT	WATER LEVEL		
727	BEDROCK	**************************************	DATE		
		ZZ SIETY	TIME		
STRATA	DEPTH	DESCR	PTION		WATER TABLE(8)
	-	As above			
30000					
	110			·	1
	110				
	_	Brown, dry, sandy grav	el.		
	_				
	120				İ
0.00000000	_				
20000000	- J				
	130	Grey dry cobbly gra	velly, fine to coarse s		
	-	Grey, dry, cobbry, gra	verly, line to coarse s	sand.	
	_				
0,0,0,0	140	Brown, moist, gravelly cobbles.	, fine to coarse sand w	rith	
	_	Brown, moist, sandy gra	avel.	-	
	-	Cobbly boulder zone 14	7–150'		
	150				
NOTES:					
PROJECT		013A	DRILLING	LOG	
BORING N	-	A4 30	ASSOCIATED	EARTH SCIEN	CES, INC.
PAGE 3		There is the same of the same	ECONOMIC GEOLOG	ISTS / ENGINEERING HINGTON 98033 o 2	GEOLOGISTS

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		LEGEND	DRILLING METHOD:			
20		GRAVEL WITH COBBLES	succind without			
0.00			Reverse Air			
500	SANDY	GRAVEL		· ·		
	POORLY SORTED SAND SAMPLING METHOD:					
	WELL SO	ORTED SAND	Continuous			
	DIAMICTO	DN			`\	
	SILT - CL	AY PEAT	WATER LEVEL			
7.577	BEDROCK	. 2007.1728	DATE			
		ZZ SILIY	TIME			
STRATA	DEPTH	DESCR	PTION		WATER	
0.000000					TABLE(8)	
		As above				
		Brown, dry, sandy, we	ll sorted har size s	gravels.		
2.000 000 000 000 000 000 000 000 000 00	160	Becoming sandier with	depth.			
7.00000		_		1		
000000	-	Brown, moist, sandy grato 2" in size. Grading				
	– 170	170 feet.				
700000						
\$00°	- [Cobbles and boulders.				
		TD 175' (Refusal)				
ļ	180					
	_					
 	-		• • •	E		
	190					
	-	r				
	- 200					
NOTES:	200					
PROJECT BORING N	(Construction of the Construction of the Const	013A A4		LING LOG	·	
ELEVATIO	N 58	- Commission - Com	ASSOCI	ATED EARTH SC GEOLOGISTS / ENGINEE	ENCES, INC.	
PAGE 4	OF _4		137% PARK LANE • KIRKLA	ND, WASHINGTON 9803	A##4 UEULUGISIS 3 ● 206-827-7701	



	L	EGEND	DRILLING METHOD:			
203	SANDY	GRAVEL WITH COBBLE	S Reverse Air			
00°00	SANDY G	RAVEL				
	POORLY S	SORTED SAND	SAMPLING METHOD			
	WELL SO	VELL SORTED SAND Continuous				
7.7.7.5	DIAMICTO					
F====			WATER LEVEL		`	
	SILT - CL		DATE			
630	BEDROCK	SILTY	TIME			
STRATA	DEPTH	DES	CRIPTION		WATER Table(8)	
		Grading into gravel	ly, fine to coarse s	and at 50 fee	et.	
		Gravel layer at 58-	-59 feet.			
	60					
		Fine to coarse sand	ly layer with gravels	at 64 feet.		
		Boulder at 67½ feet	: .			
	70 -	Grading into fine t	o medium sand with o	ccasional		
<i>ე</i> ;		gravels and cobbles	3. `			
				•		
٠٠٠ ١٠٥٥	80					
		:				
	90	Saturated. grey, sa	andy clay with gravel	.s.		
	· ·		sandy, clayey cobbles		WD 89'	
18.000		Davaracou, bronny		•	8/13/90	
Jan. Sign	100	TD 98' (Refusal)				
NOTES:		e drilling. Water adde	ed to hole to prevent	clay from b	inding	
	up Sa	ample hose.				
PROJEC	תח תח	3013A	DR	ILLING LOG		
BORING ELEVAT	1701	<u>-A51</u> 590		OCIATED EARTH S		
PAGE 2			137% PARK LANE ● KIR			

PAGE 2 OF 2

		LEGEND	DRILLING METHOD	• · · · · · · · · · · · · · · · · · · ·			
200	SANDY	GRAVEL WITH COBBLES	Reverse Air	,			
6000		GRAVEL					
5.00							
	POORLY SORTED SAND SAMPLING METHOD:						
	WELL SC	ORTED SAND	Continuous				
	DIAMICTO	ON .				V	
	SILT - CL	AY PEAT	WATER LEVEL		1		
127	BEDROCK	SILTY	DATE				
			TIME				
STRATA	DEPTH	DESCR	IPTION	•			WATER TABLE(S)
		Brown, oxidized, dry, \(\) sand with wood pieces					
NOTES:	10 20 30 40	Grey, dry, sandy, gra- Boulder zone 5-7 feet layer at 9-10 feet. Pushing boulders with Poor recovery on samp. Gravelly, fine to coar Coarsening downward in Brown, moist, gravelly Cobble zone at 47 feet	velly, cobbles wit. Containing fine drill bit 20-29 fles.	th boul to coa	ders. rse sar feet.	nd	-
PROJECT BORING N ELEVATIO PAGE 1	vo. EB-	3013A -A52	ASSO	C GEOLOGI	EARTH SC STS / ENGINE	ering ge	OLOGISTS

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	t	.EGEND	DRILLING METHOD:			
23.3	SANDY	GRAVEL WITH COBBLES	Reverse Air			
6.00 6.00	SANDY G	BRAVEL				
	POORLY	SORTED SAND	SAMPLING METHOD:			
	WELL SO	RTED SAND	Continuous			
	DIAMICTO		Continuous		`	
F====		Later Control	WATER LEVEL			
	SILT - CL	3949590	DATE			
公过	BEDROCK	SILTY	TIME			
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(S)	
		As above				
			,			
100000		Grey, dry, gravelly c	obbles.	<u>-</u>		
30070	60					
20 ° 00 ° 10 °		Boulder at 66 feet.				
	7.0	TD 67' (Refusal)				
	80				The ACTIVITY OF THE STATE OF TH	
	F					
	90					
	-					
NOTES:						
PROJEC		03013A	DRI	LLING LOG		
BORING ELEVAT	1101	-A52 590	ASSO	CIATED EARTH SO MC GEOLOGISTS / ENGINE	CIENCES, INC.	
	OF 2		137% PARK LAME • KIRK	LAND, WASHINGTON 980	33 • 206-827-7701	

		EGEND	DRILLING METHOD:		
200		GRAVEL WITH COBBLES	Reverse Air		
5.0/				3}	
2.00	SANDY			,	
	POORLY	SORTED SAND	Sampling method	•	
	WELL SORTED SAND Continuous				
	DIAMICTO	N			V
	SILT - CL	AY PEAT	WATER LEVEL		
17577	BEDROCK	SILTY	DATE		
			TIME		
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(8)
269.96		Brown, moist, silty,	fine to medium sand	l with grave	ls.
4.7.7.7.7.7.	 -	Brown, dry, gravelly,	silty fine to coar	se sand.	
30 % 50 % 36 % D. Ko	- 10	Containing cobbles at	6 feet.		
1000c	10	Grading into grey, dry	v. sandv gravels wi	th cobbles.	
000 000 000 000 000 000 000 000 000 00		Cobbly zone at 8-11 fe	eet.		
00000					
3° 000 0°	 20	Brown, moist, gravell	r fine to corre es	and with	
0°.0°.0°.5		cobbles.	y line to coarse so	III(I WICII	
		Garage 11 and and and	lawar at 26'		
00000		Gravelly coarse sand	rayer at 20		
	30				
		Cobble zone at 33-35	feet.		
00000					
	40	Cobble zone at 38-40	feet.		
0.0000 2.0000		Brown, moist, gravell	y, coarse sand with	scattered	
0.000		cobbles. Cobble zone at 46-48	feet.		
DOOOG	50	COUNTE ZONE AL 40 40			
NOTES:					
PROJECT		3013A	DRI	LLING LOG	
BORING		B-A6		CIATED EARTH S	
PAGE 1	on	660	137% PARK LANE • KIRK	MC GEOLOGISTS / ENGI LAND, WASHINGTON 98	

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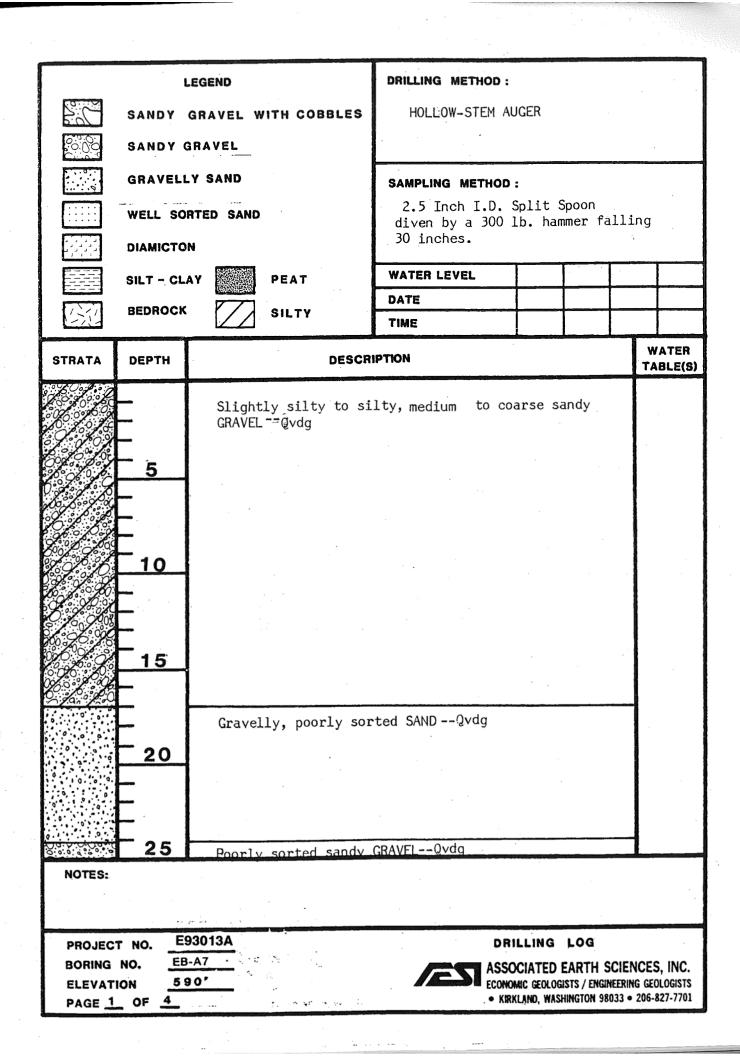
	·	LEGEND	DRILLING METHOD:				
3.5	SANDY	GRAVEL WITH COBBLES	Reverse Air				
5.05 5.05	SANDY (GRAVEL					
	POORLY	SORTED SAND	SAMPLING METHOD:				
	WELL SO	RTED SAND	Continuous				
	DIAMICTO	N			·		
	SILT - CL	AY PEAT	WATER LEVEL				
多位	BEDROCK	SILTY	TIME				
STRATA	DEPTM	DESCA			WATER		
J.º 0.0 6 76 775	JEP IN			7:52 foot	TABLE(\$)		
		Sandy, well sorted $\frac{1}{2}$	to 1° gravels at 30)-52 feet.			
		·	<i>:</i>				
	60						
0000000							
\$ 00°°C		Brown, dry, gravelly cobbles.					
	70	Brown, moist, gravell Coarsening downward t	y, medium to coarse	e sand.			
g, 0.	/0	Coarsening downward t	o graverry coarse :	sanu.			
		Brown, moist, sandy,	well sorted gravels	$(\frac{1}{2}-1)''$ with			
00000		cobbles. grading into gravel at 82 feet.	sandy, cobbly, poo	rly sorted			
	80	graver at 62 reet.					
					,		
5° 6' 6' 1			······································				
0	90	Brown, moist, gravell	y, coarse sand.				
<u>=-7000;</u>		0 1 17	ahh1 a -				
		Grey, dry, gravelly c	oddies.				
	-100				[
NOTES:							
					·		
PROJECT		3013A	DRII	LLING LOG			
BORING		B-A6 560	ASSO	CIATED EARTH SO	CIENCES, INC.		
ELEVATI PAGE _2	ON		137% PARK LANE • KIRKI	IIC GEOLOGISTS / ENGINI LAND, WASHINGTON 980			

		LEGEND	DRILLING METHOD:	
2,5	SANDY	GRAVEL WITH COBBLES	Reverse Air	
6:00 6:00	SANDY	GRAVEL		
	POORLY	SORTED SAND	SAMPLING METHOD:	
	WELL SO	RTED SAND	Continuous	
7777	DIAMICTO			N
		Contraction of the contraction o	WATER LEVEL	
	SILT - CL	(200)(1:25;	DATE	
公过	BEDROCK	SILTY	TIME	
STRATA	DEPTH	DESCR	IPTION	WATER
600 N. W. S.			1 117	TABLE(S)
		As above with clayey, 99-101 feet.	sandy, cobbly gravel	layer at
	_			1
	110			
000000				1.
\$0°0°	-		•	
000000				
2.0.5.5 VI	120	Cobble zone 119-120 fe Brown, moist, gravelly		nd.
				,
		Brown, moist, sandy gr	avel with scattered co	bbles
	130		•	
	_	Cobble zone at 130-133	feet.	
	140			
	140	and the second s		
	- 1	:		
		· .		
	150			
NOTES:		•		
PROJECT	-	3013A	DRILLIN	g rog
BORING ELEVATION	-	<u>B-A6</u>	ASSOCIATE	D EARTH SCIENCES, INC.
E .	of <u>5</u>	lanigamographymographym		LOGISTS / ENGINEERING GEOLOGISTS VASHINGTON 98033 • 206-827-7701

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					ing the group of		
	, 1	LEGEND		DRILLING METHOD			
223	SANDY	GRAVEL	WITH COBBLES	Reverse Air			
8:00 00	SANDY	GRAVEL					
	POORLY	SORTED S	AND	SAMPLING METHO) :		
	WELL SO	RTED SANG	D	Continuous			
	DIAMICTO	N				`	
	SILT - CL	AY XX	PEAT	WATER LEVEL		· i	
727	BEDROCK	C-374037-278	SILTY	DATE			·
			SICIT	TIME			
STRATA	DEPTH		DESCR	IPTION			WATER TABLE(S)
:00:0000000000000000000000000000000000		Cobbly,	medium to coa	rse sand 150-153 i	eet		
		Conder o	ravel layer at	156-158 foot			
		Sandy g	raver layer ac	130-130 leet.			
	160						į
			:				
	-	Becomin	g sandy, cobbl	y gravels at 166 4	eet.		
000000000000000000000000000000000000000	170						
600.000	-	-					
0.0000000000000000000000000000000000000	_						1
	180	Brown,	dry, sandy gra	vel.			
, O.O.O.		Brown,	dry, gravelly	cobbles.			
		Brown,	moist, cobbly,	gravelly, fine to	coars	e sand.	
	190	n. .		fina ta anamaa sa	.d a+ 1	02_105!	
	_	Fining	downward into	fine to coarse sa	IU at I	94- 1 93	
	-		•				
	200						
NOTES:							
PROJECT	-	3013A		DR	LLING	LOG	
BORING P	-	3-A6 560				EARTH SCIEN	
PAGE 4				137% PARK LANE • KIRI		STS / ENGINEERIN INVGTON 98033 •	

LEGEN	D	DRILLING METHOD:				
SANDY GRAV	VEL WITH COBBLES	Reverse Air				
SANDY GRAV	EL					
POORLY SORT	ED SAND	SAMPLING METHOD:				
WELL SORTED						
DIAMICTON		Continuous	,			
SILT - CLAY	PEAT	WATER LEVEL				
BEDROCK	SILTY	DATE				
	<u>// </u>	TIME		WATER		
STRATA DEPTH	DESCR	IPTION		TABLE(S)		
A	s above. Cobble zon	e at 200-201 feet.				
	Cobble zone at 205-2	06 feet.				
- ₂₁₀ 0	Containing less cobb	les below 208 feet.				
		V				
220	Gravelly, medium to 218-220 feet.	coarse sand layer wit	h cobbles at			
224	210-220 1000.					
		11	houlders	_		
$\mathcal{O} = \mathcal{O}$	Brown, dry, sandy, g	ravelly, cobbles and	Dourders.			
. 230	TD 229' (Refusal)					
1 						
240		•				
I F I						
250 NOTES:						
E000	124	DRILL.	ING LOG	· · · · · · · · · · · · · · · · · · ·		
PROJECT NO. E930	A6	ASSOCIAL ASSOCIA	ATED EARTH SCI	ENCES, INC.		
PAGE 5 OF 5	0	ECONOMIC 1374 PARK LANE - KIRKLAI	GEOLOGISTS / ENGINEER	ING GEOLOGISTS		



	1	LEGEND		- sanging fig. 2-columns	DRILLING ME	ETHOD:					
2.0	SANDY	GRAVEL W	ІТН СОВЕ	BLES							
	SANDY	GRAVEL	•	in the second se							
	GRAVELI	Y SAND			SAMPLING METHOD:						
	WELL SO	RTED SAND									
									``		
2223 EEEE	DIAMICTON		WATER LEV	31		i .	I	<u> </u>			
	SILT - CL	S. S	PEAT		DATE					+	(graminemenya)tan
经过	BEDROCK		SILTY	arthur manual and an arthur manual and an arthur manual and arthur	TIME	ken antara arabatan arabi kembanina ayan	-				
STRATA	DEPTH			DESCRI	PTION					WAT TABL	
D				ovum na mente de la companya de la c		on common the section			1		
80000		Poorly so	rted sand	dy GRA	VET ² -ővda						
0.0000000000000000000000000000000000000											
0.0.000	_ 30										
80000											
		·									
\$0.000 \$0.000 \$0.000		• .									
	35										
		Gravelly,	poorly	sorted	SANDQvd	g					
	_ 40										•
	40								l		
							•		ı		
	-										
	45										
0.00					4.						
	-								i		
								:	-		
3.4.6.	50							Harana			
NOTES:											
							,				
PROJEC	-	3013A				DRI	LLING	LOG	_		
BORING		-A7				ASSO	CIATED I	EARTH S	CIENC	ES, IN	IC.
PAGE _2	-	00'	ė,	-		ECONON . KIRK	AIC GEOLOGI Land, Wasi	ists / Engi Hington 98	VEERING 033 • 20	GEOLOG 16-827-7	ISTS 7701

	ı	EGEND.	DRILLING METHOD:		
200	SANDY	GRAVEL WITH COBBLES			
000	SANDY	GRAVEL			
	GRAVELL	Y SAND	SAMPLING METHOD	•	
	WELL SO	RTED SAND	·		
د د د د د د د د د	DIAMICTO	N			X.
	SILT - CL	AY PEAT	WATER LEVEL		
127	BEDROCK	SILTY	DATE TIME		
					WATER
STRATA	DEPTH	DESCR	IPTION		TABLE(S)
	_	Gravelly, poorly sorted	SANDQvdg		
	55				
0.000000	_	Fine to medium, sandy (GRAVELQvdg		
				•	
	60				
	-	Gravelly, fine to medi	Lum SANDQvdg		
	65	- CAMP :	th contrared anavol	0vds	
		Poorly sorted SAND wit	th scattered graver		
	_				
	70				
	_				
	E				
	75				
NOTES:					
1	J	93013A B-A7	· ' " "	NILLING LOG OCIATED EARTH S	CIENCES INC
BORING ELEVA	TION 5	90'	ECON	OCIATED EARTH S OMIC GEOLOGISTS / ENGIN RKLAND, WASHINGTON 980	EERING GEOLOGISTS
PAGE	3 OF 4	عبر أخاصها إ	• XI	KNLAMD, MASHINGTON 380	177 - 700-051-1101

I.

		LEGEND	DRILLING METHOD:	
265	SANDY	GRAVEL WITH COBBLES		
50 00 50 00	SANDY	GRAVEL	:	
	GRAVELI	LY SAND	SAMPLING METHOD:	
	WELL SO	RTED SAND		
	DIAMICTO	N		
	SILT - CL	AY PEAT	WATER LEVEL	
ार्ग	BEDROCK	SILTY	DATE	
			TIME	
STRATA	DEPTH	DESCR	IPTION	WATER TABLE(S)
		Poorly sorted SAND wit	h scattered gravelQvds	
	80			
			•	
	-			
0	85	Gravelly, well sorted,	medium SANDQvds	
0				
		Well sorted, fine to me	dium SANDQvds	
	90			
0		Gravelly, well sorted,	medium SANDQvds	
	95	Sandy, gravelly SILT	<u>Ĵ</u> p∨u	
			•	
TD	⁻ 100			
NOTES:				
NO. 150	t No. FO	93013A	DRILLING LO	o G
PROJEC BORING	***************************************	3-A7		RTH SCIENCES, INC.
ELEVAT		90'	ECONOMIC GEOLOGISTS	/ ENGINEERING GEOLOGISTS

	Į.	EGEND	DRILLING METHOD:		
03	SANDY	GRAVEL WITH COBBLES	Reverse Air		
6.00 6.00	SANDY C	BRAVEL			
	POORLY	SORTED SAND	SAMPLING METHOD		·
	WELL SO	RTED SAND	Continuous		
	DIAMICTO	N			i,
	SILT - CL	A COMMON TO	WATER LEVEL		
	BEDROCK		DATE		
	BEDUCCA	SILTY	TIME		
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(8)
		Brown, dry, cobbly, sand. (Fill)	gravelly, silty fir	ne to coarse	
		Saild. (IIII)			
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	10				
		Brown, dry, gravelly	, cobbles with boul	lders.	
0.000		Boulder zone at 12-1	6 feet.		
00000	20				
00000	·	Brown, dry becoming	moist with depth,	sandy, gravel	
000000	_	with cobbles.			
000000					
$\mathcal{O}_{0}$ . $\mathcal{O}_{0}$	30	Increase in cobble c	ontent below 31 fee	et.	
			•		
0.000	-	0.111 111	hatrian 36-38 fact		
	40	Cobbly boulder zone	nerweem 20-30 reer		
00000					
$O_0O_0O_0$					
0000	<b>-</b> 50				
NOTES:		•			
PROJEC	T NO. E9	3013A	DRI	ILLING LOG	
BORING	-	3-B1 580	ASSO	CIATED EARTH	SCIENCES, INC.
ELEVAT	-		137½ PARK LANE + KIRI	MIC GEOLOGISTS / ENGI KLAND, WASHINGTON 98	033 • 206-827-7701

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		LEGEND	DRILLING METHOD:		
22	SANDY	GRAVEL WITH COBBLES	Reverse Air		
6:00 6:00	SANDY	GRAVEL			
	POORLY SORTED SAND				
	WELL SORTED SAND SAMPLING METHOD: Continuous				
	DIAMICTO			``	
	SILT - CL	AY PEAT	DATE		
经过	BEDROCK	SILTY	TIME	·	
STRATA	DEPTH	DESCR	IPTION		WATER
75.55.05.05.					TABLE(8)
0.000		Pushing boulders with			
00000	_	Poor sample recovery be cobbly 59-60 feet.	petween 50-60 feet.	Becoming les	s
7.0000	60	, 5, 66, 266.			
	_				•
00000		Cobble zone 66-70'			
	70	000010 2010 00 70			
0.00			•		
000000					
0000					
0.000	80				
:0.0.0					
0.00	-	Brown, moist, gravelly	, fine to coarse sar	nd.	
	90				
0.					
		Gravelly, medium to co	arse sand layer betw	veen 94-98'	
	100				
NOTES:					
	•				
PROJECT	NO. E9	3013A	DRILL	ING LOG	
BORING	NO. EE	B-B1	ASSOCIA	TED EARTH SCI	ENCES, INC.
PAGE 2	ON	80	ECONOMIC :	GEOLOGISTS / ENGINEE	RING GEOLOGISTS
				Managara and Artificial State of the Sandara	

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	l	.EGEND	DRILLING METHOD:		
200	SANDY	GRAVEL WITH COBBLES	Reverse Air		
6.0°	SANDY (	BRAVEL			
9	POORLY	SORTED SAND	SAMPLING METHOD		
	WELL SO	RTED SAND	Continuous		
	DIAMICTO	N			`
	SILT - CL	PEAT	WATER LEVEL		
7/27	BEDROCK	SILTY	DATE		
			TIME		
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(S)
		As above.			
7/02.00 UG/7	110	Grading into brown, mo	oist, gravelly, med	lium to coarse	
	130	Brown, moist, sandy g	ravel.		
	140	Brown, moist, slightl	y silty, fine to co	parse sand.	
	150	Brown, moist, sandy, well sorted 1" gravel	gravel, grading to s.	slightly sand	ly,
NOTES:					
PROJEC BORING ELEVAT PAGE	NO.	<b>93013A</b> :B-B1 555	ASSO	ILLING LOG ICIATED EARTH SO MIC GEOLOGISTS / ENGINE (LAND, WASHINGTON 9803	ERING GEOLOGISTS

		LEGEND	DRILLING METHOD:		
200	SANDY	GRAVEL WITH COBBLES	Reverse Air		
60.00 60.000	SANDY	GRAVEL			
	POORLY	SORTED SAND	SAMPLING METHOD	4	
	WELL S(	ORTED SAND	Continuous	•	
. 17.17	DIAMICTO				
	SILT - CL	V CONTROL OF THE CONT	WATER LEVEL	T	
	BEDROCK	**************************************	DATE		
<b>上</b>	beynyy	SILTY	TIME		
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(8)
		Brown, moist, gravelly		sand. Sandy	
		gravel layer 153-160 f	reet.		
	L 160				
9 0	100				
	- 1				
				•	
	170				
0. 0. 0.	F		11	*** *** ****	
0		Grading into brown, mo sand. Becoming cobbly,	pist, gravelly, med, gravelly, fine to	dium to coars o coarse sand	ie 1
	180	with depth.			
	F '	Containing some clay 1	181-184 feet.		
	E 1			•	
0.00	190	Grading into brown, mo	oist, gravelly, me	dium to coars	se :
		sand.	•		
		7 117 - 7 100-20	^ 6		
	200	Cobble zone at 199-200	) feet.		
NOTES:					
PROJECT BORING	- TO	93013A B-B1		LLING LOG	
ELEVATI	ION	555	ECONON	ICIATED EARTH SO MIC GEOLOGISTS / ENGIN	EERING GEOLOGISTS
PAGE _4	4 OF 5		137% PARK LANE . KIRK		

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SANDY GRAVEL WITH COBBLES  SANDY GRAVEL  POORLY SORTED SAND  WELL SORTED SAND  DIAMICTON  SILT - CLAY  PEAT			DRILLING METHOD: Reverse Air  SAMPLING METHOD: Continuous  WATER LEVEL		
一级组	BEDROCK	SILTY	TIME	·	
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(8)
	210	As above.  Brown, moist, cobbly  Brown, moist, fine to  Cobbly boulder zone a	coarse sand.	clay.	
	230	Grading into brown, rescattered gravels.  Grading into brown, resand. Cobbles and both Brown, moist, sandy	noist, gravelly, fi ulders at 234-236 f	ne to coarse	
NOTES:	250	TD 241'			
				HILLING LOG	
BORING ELEVA	NO.	<b>E93013A EB-B1 555</b>	ASS	OCIATED EARTH	ENEERING GEOLOGISTS

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							1.47%
٧	Li	EGEND	DRILLING METHOD:				
SANDY GRAVEL WITH COBBLES			Reverse Air				
<u> </u>							
	SANDY G						
9	POORLY S	SORTED SAND	SAMPLING METHOD	:			
	WELL SOF	RTED SAND	Continuous				
	DIAMICTO	N				`\	•
	SILT - CL	4 t- (10 t- 10 t-	WATER LEVEL				
			DATE				
少过	BEDROCK	SILTY	TIME				
STRATA	DEPTH	DESC	RIPTION				WATER TABLE(S
		Brown, dry, silty, f	ine to coarse sand	with g	ravels		
000000000000000000000000000000000000000		(Fi11)		· 			
20000		Brown, dry, sandy, g	ravelly, cobbles.	- "			
00.00	10	D10,,, 0-1, 1, 0					
30.00°		Boulder zone at 12 f	eet Pushing houlde	rs with	h dril	1	
7.0000	E	Boulder zone at 12 1 bit. Poor sample rec	overy between 12-50	feet.			
0.00							
000	20						
0000	F						
7.000	-						
0.00	30	<u>.</u>			ņ		
0.0000	<b>.</b>						
0.0.0	上						
0°0°0	<u></u>						
50000	40	1					•
000000	I						
00.00	1						
:00:0	50						<u> </u>
NOTES	:						
PROJE	C1 1901	E93013A	D	RILLING	LOG		
BORING	3 NO	EB-B2	ASS.	SOCIATEI	D EARTH	SCIE	NCES, INC
ELEVA	TION $\frac{1}{4}$ OF $\frac{4}{4}$	535	137% PARK LANE • K	RXLAND, W	ASHINGTON	98033	206-827-77
FAUE.				Street Superposition republic			

		LEGEND	DRILLING METHOD:				
200		GRAVEL WITH COBBLES	Reverse Air				
50.00 50.00	SANDY		Keverse All				
		SORTED SAND					
ا والناس			SAMPLING METHOD:				
	WELL SO	RTED SAND	Continuous				
	DIAMICTO	N			X		
	SILT - CL	AY PEAT	WATER LEVEL				
经过	BEDROCK	SILTY	TIME				
			(178)		l l		
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(8)		
30000		As above.					
		Brown, moist, gravell	y, fine to coarse s	sand.			
2000	60	Brown, moist, sandy g	ravel with cobbles	•			
				•			
0.000							
	. 70	70					
20000							
00000		Cobbly boulders 75-82 Poor sample recovery					
	80	Pushing boulder with		•			
0:0.C							
		Brown, moist, gravelly content increasing be		sand. Cobble			
	90						
	90						
	_	Gravelly cobble zone 9	93-97 feet.				
	_						
	100						
NOTES:							
	- -						
PROJECT	1717	<b>3013A</b> 3-B2	DRIL	LING LOG			
BORING ELEVATION			ASSOC	HATED EARTH SO	CIENCES, INC.		
PAGE _2	and the second s		1371/2 PARK LANE • KIRKL	C GEOLOGISTS / ENGINE			

	,	LEGEND	DRILLING METHOD:			
202	SANDY GRAVEL WITH COBBLES		Reverse Air			
500°	SANDY GRAVEL					
	POORLY	SORTED SAND	SAMPLING METHOD:			
	WELL SORTED SAND		Continuous			
	DIAMICTO	N			N.	
	SILT - CL		WATER LEVEL			
		3904398	DATE			
	BEDROCK	SILTY	TIME			
STRATA	DEPTH	DESCRI	PTION		WATER TABLE(S)	
o		As above.				
3000						
100000000000000000000000000000000000000		Grading into brown, si	ilty, gravelly, fir	ne to coarse		
	110	sand with coodles.				
		Highly oxidized 113-11	l4 feet.	•		
	120					
	_					
		Containing less silt b	pelow 128 feet.		l	
	130			· ing.		
		Sandy, gravelly, cobbl	le zone 134-137 fee	et.		
	_					
	140	•		***		
	-					
		Sandy, gravelly, cobbl	le zone at 144-147	feet.		
	150					
NOTES:						
PROJECT	777	<b>3013A</b> -B2	DRII	LLING LOG		
BORING ELEVATION		35		CIATED EARTH SO IIC GEOLOGISTS / ENGIN		
PAGE _3		odfdwlffdefeed ,	137% PARK LANE • KIRKI			

		LEGEND	DRILLING METHOD:		
2,5	SANDY GRAVEL WITH COBBLES		Reverse Air		
6000 6000	SANDY GRAVEL		ACTORDO MEL		
		SORTED SAND			
			SAMPLING METHOD		
	WELL SO	RTED SAND	Continuous		
11111	DIAMICTO	N			١
	SILT - CL	AY PEAT	WATER LEVEL		
区组	BEDROCK	SILTY	DATE		
			TIME		
STRATA	DEPTH	DESCRI	PTION		WATER TABLE(S)
	·	As above.			
		Brown, moist, fine to	coarse sand with n	ninor gravels	•
	160	Increase gravel conte	nt below 160 feet.	•	
	170	·			
0.0000000		Cobble zone at 172-174	feet.		
	Grading into sandy gravels with cobbles. Coarsening				
0.00.0	100	downward with depth. I	Boulders at 183 fee	et.	
		TD 183' (Refusal)	14 (14)		
		(112.2.2.7)			
	190				
	200				
NOTES:		•			
PROJECT		)3013A	DRIL	LING LOG	
BORING NO. EB-B2 ASSOCIATED EARTH SCIENCES, INC.					
ELEVATION PAGE 4	province:	535	137½ PARK LANE • KIRKL	C GEOLOGISTS / ENGINEED	RING ŒOLOGISTS

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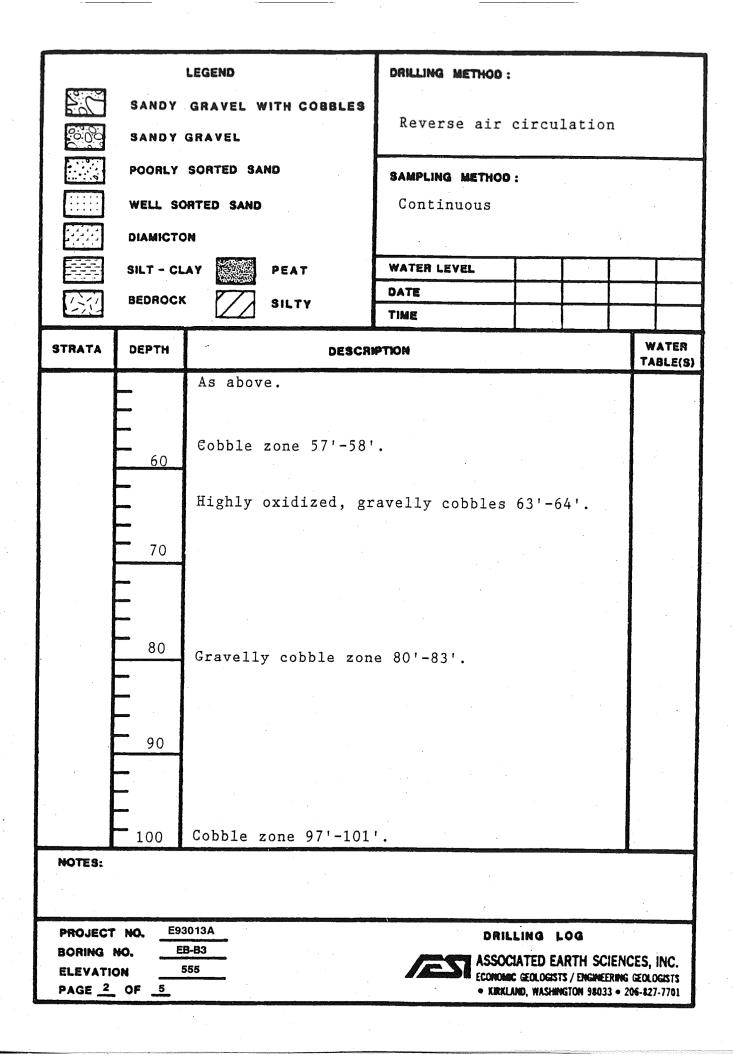
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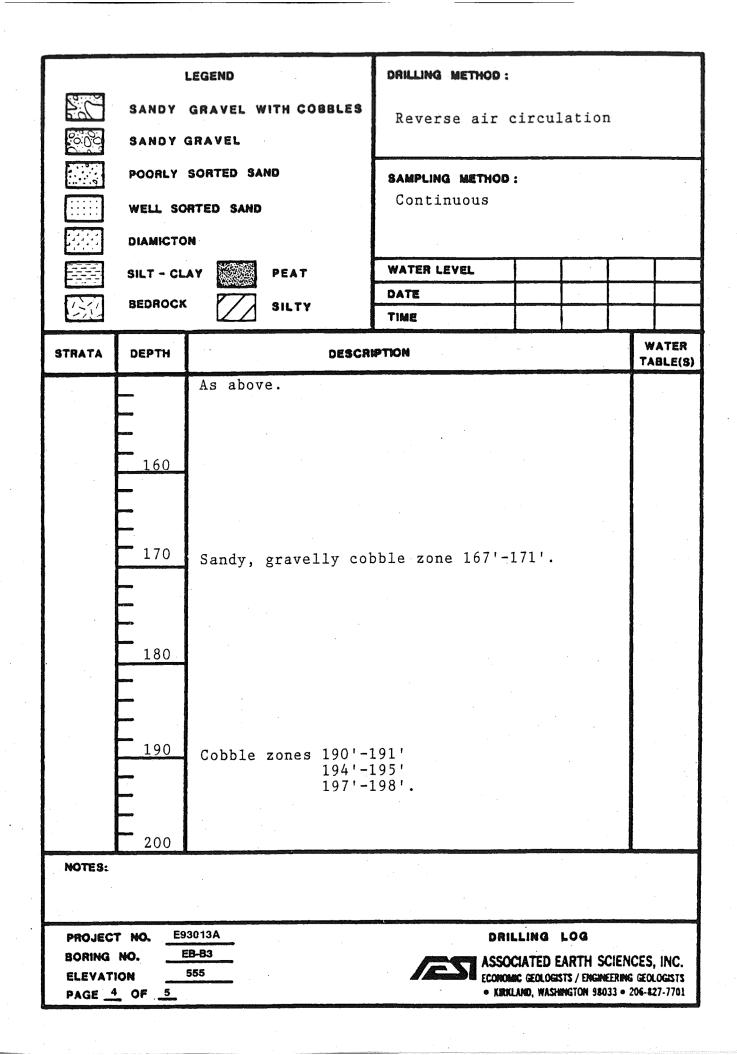
	L	EGEND	DRILLING METHOD:	,	•
SAI SAI	NDY	GRAVEL WITH COBBLES	Reverse air circulation		
SAI	SANDY GRAVEL				
POC	POORLY SORTED SAND WELL SORTED SAND		SAMPLING METHOD		
			Continuous		
					•
	MICTO				
SIL	T - CL	PEAT	WATER LEVEL		
BED	DROCK	SILTY	TIME		
STRATA DEI	РТН	Initiated DESCRI	PTION		WATER TABLE(S)
		Brown, dry, sandy,	gravelly cobbl	es.	
F	· ·				
		Brown, dry, cobbles	s with gravels.		
	10				
	Security of the Security of th				
	20	Boulders and cobble	es 18'-23'.		
	30				
		Brown, dry, sandy	gravel.		
		01	of brown moist	- grave11v	and the second
	40	Grading interbeds of fine to coarse sand	d and sandy gra	evel with	
		occasionalccobbles	•		
	50				1
NOTES:					
PROJECT NO	<b>λ</b> Ε9	3013A	DA	ILLING LOG	
BORING NO. ELEVATION PAGE 1 OF	E	B-B3 555	ASS ECON	OCIATED EARTH SCI DMIC GEOLOGISTS / ENGINEEI INLAND, WASHINGTON 98033	RING GEOLOGISTS

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77.0



		LEGEND	Reverse air circulation  SAMPLING METHOD:  Continuous		
	SANDY	GRAVEL WITH COBBLES			
	POORLY	SORTED SAND			
	WELL SO	HTED SAND			
	DIAMICTO		Continuous		
	SILT - CL	(Concession)	WATER LEVEL	<u> </u>	
		(300)5-702	DATE		
537	BEDROCK	SILTY	TIME		
STRATA	DEPTH	DESCR	PTION		WATER TABLE(S)
		Grading interbeds of fine to coarse sand occasional cobbles	d and sandy grave		
	110	Gravelly cobble zon	ne 110'-112'.		
		Cobble zone 114'-1	16'.		
	120	Cobble zone 119'-1:	22'.		
	130				
	140	Becoming brown, mos sand 134'-144'.	ist to wet, fine	to medium	
	150	Grading interbeds of fine to coarse sand cobbles. Cobble zo	l and sandy grave		
NOTES:					
PROJEC	1 100	93013A	DRILL	ING LOG	
BORING ELEVATI PAGE 3		555 555	ECONOMIC	ATED EARTH SCIEN GEOLOGISTS / ENGINEERING D, WASHINGTON 98033 •	G GEOLOGISTS

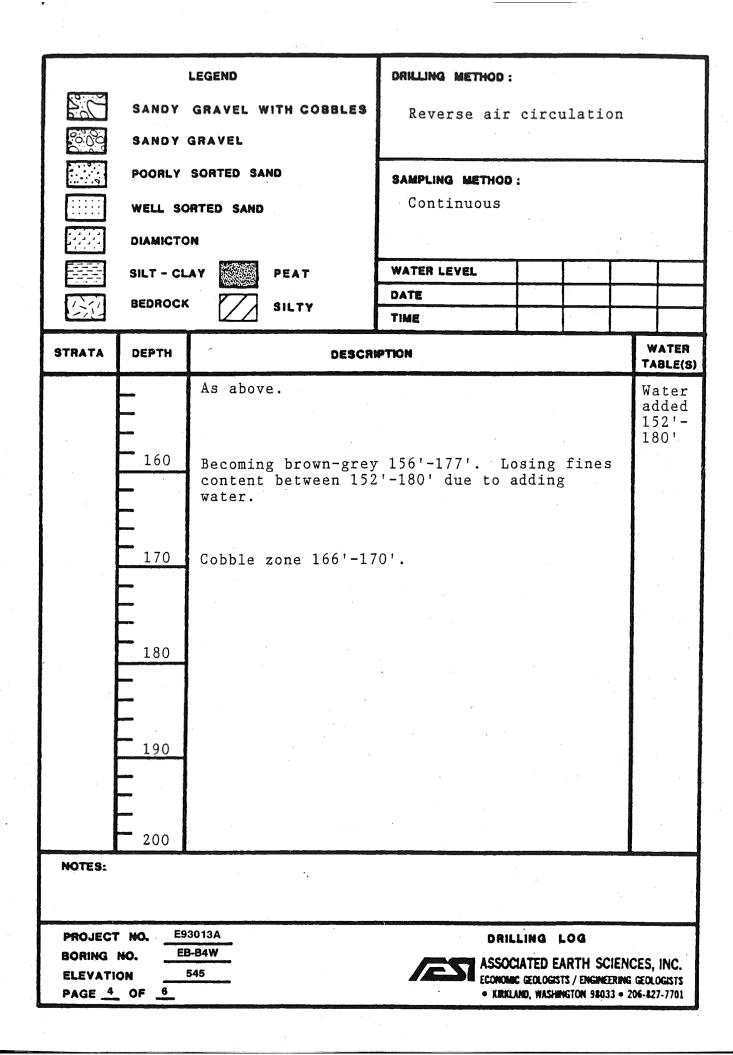


		LEGEND	DAILLING METHOD:				
22.8	SANDY	GRAVEL WITH COBBLES	Reverse air circulation				
50,00°	SANDY	GRAVEL					
	POORLY	SORTED SAND	SAMPLING METHOD:				
:::::	WELL SO	ORTED SAND	Continuous	-			
	DIAMICTO	DN					
	SILT - CL	AY PEAT	WATER LEVEL				
<b>必</b> 征	BEDROCK	SILTY	DATE				
			TIME				
STRATA	DEPTH	DESCR	PTION	WATER TABLE(S)			
	_	As above. Contains silt/clay on grave	ing minor silt clast and ls.				
	- ·						
	210						
	<b>-</b>						
				1			
	220	Becoming moist to w	vet 218'-220'.	1			
	_						
		Gravelly, cobble zo	one 227'-229'.				
	230	Partition 2001 2221					
· · · · · · · · · · · · · · · · · · ·		Brown, moist, cemented (?), sandy, cobbly					
	_	gravels. (Hard dri	illing)				
Pour.	240	Cobble zone 237'-23	38'.				
	_	<del>-</del>					
		TD @ 244' 4/4/91 Refusal					
	250						
NOTES:							
PROJECT	-	3013A B-B3	DRILLING LOG				
ELEVATIO	ELEVATION 555 ASSOCIATED EARTH SCIENCES, INC.						
PAGE 5	PAGE 5 OF 5 • KIRKLAND, WASHINGTON 98033 • 206-827-7701						

		LEGEND	DRILLING METHOD:	
2.6	SANDY GRAVEL WITH COBBLES		Reverse air circulation	
6,05°	SANDY	GRAVEL		•
	POORLY	SORTED SAND	SAMPLING METHOD:	
:::::	WELL SO	ORTED SAND	Continuous	
<b>333</b>	DIAMICTO	ON .	i.	
	SILT - CL	AY PEAT	WATER LEVEL	
127	BEDROCK	SILTY	DATE	
[27]		V Z J	TIME	
STRATA	DEPTH	Initiated 4/8/91 DESCRI	PTION	WATER TABLE(S)
		Brown, wet, sandy g	ravelly cobbles.	
	<b>-</b> 10			<b>!</b> :
	10	Becoming dry with so	ome silt content below 10'.	<b>]</b>
	_	·		
	20			
	-	:		
	30			
		Proven mot anamally	, fine to coarse sand	
		with scattered cobbl	es.	
	40	Brown, moist, sandy,	well sorted sand with	
	_		ly, fine to coarse sand	
	·	with cobbles.	ily, line to coalse sand	
	50	Containing less cobb	les below 48'.	
NOTES:				
PROJECT	NO. E9	3013A	DRILLING LOG	
BORING		3-B4W	ASSOCIATED EARTH SCIEN	
PAGE 1	<b>—</b>		ECONOMIC GEOLOGISTS / ENGINEERING  • KIRKLAND, WASHINGTON 98033 • 1	

			l		
- Rossian		LEGEND	DRILLING METHOD:	:	
22	SANDY	GRAVEL WITH COBBLES	Reverse ai:	r circulati	on
8:00	SANDY	GRAVEL			
	POORLY	SORTED SAND			
			SAMPLING METHOD		
	WELL SC	ORTED SAND	Continuous		
1333	DIAMICTO	OH -		·	N v
	SILT - CL	LAY PEAT	WATER LEVEL		
<b>1237</b>	BEDROCK	K SILTY	DATE		
تنكتا			TIME		
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(S
		As above. Well sort	1" -1" oray	1- of 50!-	
	F	$56\frac{1}{2}$ '.	:eα 2 -1 510.0	ils at Jo	
	h!				
	60	Grading interbeds of	f brown, moist,	, sandy	7
	H 1	gravel and gravelly,	, fine to coars	e sand.	
1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		Well sorted 1" grave	els 60'-63'.		
	70				
	F . 1				
	80				
	H 1				
		1.			
	<b>-</b> 90				
	F 1				
	100				
NOTES:					a
PROJECT	community.	93013A	DRI	ILLING LOG	
BORING I	Valid Carried Land	545	ASSO	CIATED EARTH SC	IENCES, INC.
	OF 6	145	ECONOM	MIC GEOLOGISTS / ENGINEE (LAND, WASHINGTON 9803)	ERING GEOLOGISTS

	ļ	EGEND	DRILLING METHOD:	
223	SANDY	GRAVEL WITH COBBLES	Reverse air circulation	
<b>%</b> 000	SANDY	GRAVEL	· · · · · · · · · · · · · · · · · · ·	
	POORLY	SORTED SAND	SAMPLING METHOD:	
	WELL SO	RTED SAND	Continuous	
0303	DIAMICTO	·		
		v. scottage of the	WATER LEVEL	
	SILT - CL	\$300 M 2000	DATE	
437	BEDROCK	SILTY	TIME	
STRATA	DEPTH	DESCR	NOITHI	WATER TABLE(S)
		As above.		
	110			
	120			
			of brown compared dry	
		I gilty fine to coa	of brown, cemented, dry, rse sand (hard drilling)	
•	130	and brown, moist, varying gravel con	fine to coarse sand with	
	140	<b>]</b> :		
				·
	150			
NOTES:				
		·		
1	C1 140	E93013A	DRILLING LOG	AAIPSIADA
BORING	_	545	ASSOCIATED EARTH ECONOMIC GEOLOGISTS / ENG	INVEERING GEOLOGISTS
	3 OF 6	edinacion medicini de reconstruiri della construiri della	• KIRKLAND, WASHINGTON 9	8033 • 206-827-7701



LE	GEND	· ·		
SANDY G	RAVEL WITH COBBLES	Reverse air ci	rculation	
	•			
POORLY S	ORTED SAND	SAMPLING METHOD:		
WELL SOF	TED SAND	Continuous		
DIAMICTO	•			
	V. Carried Co.	WATER LEVEL		· ·
		DATE		
BEDROCK	SILTY	TIME		1
DEPTH	DESC	RIPTION		WATER TABLE(S)
	As above			Water
				added 205′-
				208'
210				
210				
		•		
220				
220	Brown dry, sandy	$_{ m V}$ , well sorted 1'	' gravels at	
	222'-224'	224'-232'.		
	Limited sample re	etain 224 - 10-		-
230		•		7
	Tot sand	v. well sorted 3	/4"-l" grave	els V
	with minor cobbl	es.	d clavey,	Trace while
	Brown, wet to sa	turated, unsolve	1 - : + b	
240	Brown, dry, silt	y, fine to coars	e sand Willi	
	minor cobbles an	d graveis. become water added. (	Hard	Water
	drilling)			added 246'-
				248'
2.50				
ES:				
		A	RILLING LOG	
JECT NO.	E93013A	A	PRILLING LOG	SCIENCES, INC.
JECT NO.	E93013A EB-B4W 545	ES AS	DRILLING LOG SSOCIATED EARTH ONOMIC GEOLOGISTS / ENG KIRKLAND, WASHINGTON 9	海便EKMAP (呼()(P()()()()()()()()()()()()()()()()()
	SANDY G SANDY G POORLY S WELL SOR DIAMICTOR SILT - CLA BEDROCK  DEPTH  210  220  230	DEPTH DESC.  As above  210  220  Brown, dry, sandy 222'-224'. Limited sample rescaled and with minor cobbl. Brown, wet, sand with minor cobbl. Brown, wet to sa sandy silt.  240  Brown, dry, silt minor cobbles and below 246' where drilling)	SANDY GRAVEL WITH COBBLES  SANDY GRAVEL  POORLY SORTED SAND  WELL SORTED SAND  DIAMICTON  SILT - CLAY BEDROCK  SILTY  DESCRIPTION  As above  210  Brown, dry, sandy, well sorted 1' 222'-224'. Limited sample return 224'-232'.  Brown, wet, sandy, well sorted 3' with minor cobbles. Brown, wet to saturated, unsorted sandy silt.  240  Brown, dry, silty, fine to coars minor cobbles and gravels. Brown 246' where water added. (drilling)	SANDY GRAVEL WITH COBBLES  SANDY GRAVEL  POORLY SORTED SAND  WELL SORTED SAND  DIAMICTON  SILT - CLAY  BEDROCK  SILTY  DEPTH  DESCRIPTION  As above  210  Brown, dry, sandy, well sorted 1" gravels at 222'-224'. Limited sample return 224'-232'.  Brown, wet, sandy, well sorted 3/4"-1" gravels with minor cobbles.  Brown, wet to saturated, unsorted, clayey, sandy silt.  240  Brown, wet, silty, fine to coarse sand with minor cobbles and gravels. Becoming wet below 246' where water added. (Hard drilling)

		LEGEND	DRILLING METHOD:	,	
50	SANDY	GRAVEL WITH COBBLES	Reverse air circ	ulation	
<b>6</b> .00	SANDY	GRAVEL			
	POORLY	SORTED SAND	SAMPLING METHOD:		
	WELL SO	ORTED SAND	Continuous		
	DIAMICTO	)M		, ,	
	SILT - CL	V Carlos April	WATER LEVEL		
	BEDROCK	, 1920 N. TOS.	DATE		
		SILTY	TIME		
STRATA	DEPTH	DESCR	IPTION	Es.	WATER TABLE(S)
		Brown, dry becomin subangular medium	g wet where water a	dded,	Water
			rated, unsorted, sa	ndv silt.	added 251'-
	260		osing some fines co		260'
	200	TD 260' 4/13/91	e de transferio de la comunicació de principio en processo de mejo a que apropria de la grapa de contra de transferio de del Come del Come de  Come del Come de del Come de del Come de		
	-	Refusal			
	270				
	270				
				,	
	280				
	_				
	290				
	300				
NOTES:					
			·		
PROJECT		3013A	DRILLING	rog	
BORING ELEVATION	.444	3-B4W 545	ASSOCIATED FERMINAL CECN OF	EARTH SCIENCESTS / ENGINEERING	ES, INC.
PAGE 6	Contract of the Contract of th	- yana ananan da ana		31515 / EIREBREEKBRU HMYGTON 98033 • 21	

	!	LEGEND	DRILLING METHOD:		
2.0	SANDY	GRAVEL WITH COBBLES	Reverse air c	irculation	
6.0c	SANDY	GRAVEL			
	POORLY	SORTED SAND	SAMPLING METHOD:		
::::::	WELL SO	RTED SAND	Continuous	1	
	DIAMICTO	N			
<b>三</b>	SILT - CL	AY PEAT	WATER LEVEL		
1227	BEDROCK	SILTY	DATE		
			TIME		
STRATA	DEPTH	Initiated <b>DESCR</b>	PTION		WATER TABLE(S)
		Brown, dry to moist	t, oxidized, gra	velly,	
		silty, fine to coa	rse sand with co	bbles.	
	10				
		Cobbles with grave.	ls 13'-22'.		
	-				
					l
	20				
	-	Cobbles 24'-26'.			
		CODDIES 24 - 20.			
					1
	30				
	<del>-</del> 40				
		D : 1:		d: th	
	50	Brown, moist, medi- scattered cobbles.	um to coarse san	CO WILH	
NOTES:					
PROJEC	T NO. 90	06-18E	DRIL	LING LOG	
BORING		B-C1W	ASSOC ECONOM	ATED EARTH SCIE	NCES, INC.
ELEVAT	ION	520	ECONOMA	C GEOLOGISTS / ENGINEERIN	IE GEOLOGISTS

• KIRKLAND, WASHINGTON 98033 • 206-827-7701

PAGE 1 OF 6

						اسموميت		
	1	LEGEND	DRILLING METHOD:					
203	SANDY	Reverse air circulation						
6.00 6.00	SANDY (							
	POORLY	SORTED SAND	SAMPLING METHOD					
	WELL SO	RTED SAND	Continuous					
	DIAMICTO	N						
	SILT - CL	a farmania	WATER LEVEL			<u> </u>		
	BEDROCK	- San 8-25	DATE					
色组	BEDRUCK	SILTY	TIME					
STRATA	DEPTH	DESCR	PTION					ATER BLE(S)
		Brown, moist, sligh	ntly oxidized, s	ilty	to		Louine.	
		slightly silty, gra	evelly, fine to	coars	se			
		52'-54'.						
	60							
	-							
		Becoming gravellier on gravels. Contai	below 64' with	ı silt lense	t/clay es of	7		
	70	silt.			- 3	l		
		Cobble zone at 68'.	•					
		Brown, moist, grave	elly, medium to	coar	se sar	nd.		
<b></b>		Moist, sandy, cobb						
	80			lissa		·		
	-	Brown, dry to moist gravelly, silty to	slightly silty,	, fin	, e to			
		coarse sand with co	obbles.					
	90							
		Gravelly cobbles 90	0'-94'.					
	<del> </del>	Brown, dry becoming	g moist, gravel	ly, f	ine to	0		
	100	medium sand with od silty in areas. S	ccasional cobble ilt/clay on grav	es. vels.	SIIgh	стА		
NOTES:								
PROJEC	T NO 9	006-18E	ne:	LLING	LOG			
BORING	,, ,,,,,,	B-C1W			EARTH S	SCIEN	CES	. INC.
ELEVAT	-	520	ECONO	MC GEOLOG	SISTS / ENGI HINGTON 98	NEERING	GEO	LOGISTS
PAGE _	2 OF 6		- AMA	LAND, MA	1 TO 1 LY 10 10	~~~	4V4*4	-1-//VL

	L	EGEND	DRILLING METHOD:		
500	SANDY (	GRAVEL WITH COBBLES	Reverse air	circulation	
% 0°C	SANDY G	RAVEL			
	POORLY S	SORTED SAND	SAMPLING METHOD:	:	
	WELL SO	RTED SAND	Continuous		
	DIAMICTO	N			
	SILT - CL	AY PEAT	WATER LEVEL		
	BEDROCK	- 10 miles	DATE		
			TIME		WATER
STRATA	DEPTH	DESC	RIPTION		TABLE(S)
		As above.			
	110				
	120				
	-				
	130				
		Brown, dry to moi	st, sandy, cobbl	Ly gravels.	
	H				
	<b>—</b> 140				
	_	1			
	-			ing to goar	se sand.
	150	Grading into cobb	oly, gravelly, foly, sandy grave	1.	
NOTES					
	ECT NO.	9006-18E		RILLING LOG	
BORI	NG NO	EB-C1W 520	CC CC	SOCIATED EARTH ONOMIC GEOLOGISTS / EN	CINEERING GEOLUGIS
	ATION .			KIRKLAND, WASHINGTON	98033 • 206-827-77

	LI	EGEND	DRILLING METHOD:				
25	SANDY G	RAVEL WITH COBBLES	Reverse air ci	irculat	ion		
60°00	SANDY G	RAVEL					
	POORLY S	ORTED SAND	SAMPLING METHOD:	1			
	WELL SOF	RTED SAND	Continuous				
	DIAMICTO	4					
	SILT - CL	PEAT	WATER LEVEL				
	3161 - 067		DATE				
<b>少</b> 公	BEDROCK	SILTY	TIME			-	
STRATA	DEPTH	DESC	RIPTION				WATER ABLE(S)
		Brown, dry, cobbly	, sandy gravels.				
						_	
	Brown, moist, slightly silty, fine to medium					7500050	
	Brown, moist, slightly sitty, rind sand less sand. Containing scattered gravels and less silt with depth. Cobble zone 158'-159'.						
1	<u></u>	•					

STRATA	DEPTH	DESCRIPTION	TABLE(S)	
		Brown, dry, cobbly, sandy gravels.		
	160	Brown, moist, slightly silty, fine to medium sand. Containing scattered gravels and less silt with depth. Cobble zone 158'-159'.		
	E			
	170			THE RESIDENCE OF THE PERSON.
	E			
	180			
	F			
	190			
	E	Increase gravel content 194'-195'. Cobbles and boulders 195'-197'.		
	200			

NOTES:

 PROJECT NO.
 9006-18E

 BORING NO.
 EB-C1W

 ELEVATION
 520

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 6

DRILLING LOG



						in research	androis and a second
	1	.EGEND	DRILLING METHOD:				
202	SANDY	GRAVEL WITH COBBLES	Reverse air c	irculatio	n		
6.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00	SANDY C	BRAVEL					
	POORLY	SORTED SAND	SAMPLING METHOD				
:::::	WELL SO	RTED SAND	Continuous				
	DIAMICTO	N					
	SILT - CL	AY PEAT	WATER LEVEL				
	BEDROCK	99.49.200	DATE				
<b>位</b> 组	BEDROCK	SILTY	TIME				
STRATA	DEPTH	DESCR	IPTION				ATER BLE(S)
		As above.					
		Slightly silty 206	5'-208'.				
	210						
	E-	Brown, dry, cement	ted (?). gravell	y, fine	t o		
	_	coarse sand with	cobbles.	• •			
	220				0 0 <i>l</i> . t		
	_	Brown, dry, sandy	, gravelly cobbl	Les 220'-	424'		
		Brown, dry, sandy some boulders.	, cobbly gravels	s with		A	
	230	Brown moist, fin	e to medium sand	i with			
		occasional gravel			_		
		Brown, moist, cem	well sorted gray	vels. Co	n –		
	240	coarse sand with well sorted gravels. Containing silt lenses. Sandy, gravelly cobbles and boulders 233'-235'.					
		and bourders 255	20) .				
						-	
		Grading into brow medium sand with	n, moist, silty gravels.	, fine to			
	250	mediam pand with	0				
NOTES:							
1							

 PROJECT NO.
 9006-18E

 BORING NO.
 EB-C1W

 ELEVATION
 520

PAGE 5 OF 6

DRILLING LOG



		LEGEND	DRILLING METHOD:		
	SANDY SANDY	GRAVEL WITH COBBLES	Reverse air o	circulation	
200	POORLY	SORTED SAND	SAMPLING METHOD:		
	WELL SO	RTED SAND	Continuous		
33333 ====	DIAMICTO	(MARIOCARITA		-	
	SILT - CL	CANAL SECTION	WATER LEVEL		
	BEDROCK	SILTY	TIME		
STRATA	DEPTH	DESCR	PTION		WATER TABLE(S)
		As above.			
					_
-	260	Drown point and			$\frac{\mathbf{V}}{259.3}$
	_	Brown, moist, sandy bedded, fine sand l	enses.	ith inter-	3/28/91
					266'
	270				While drillin
	_	Becomes wet at 274' sand below 278'. I	. Grading into	silty, fir	ne 2/8/91
	280	lost due to addition		ire of fille;	Water
	200				added while
					drilli: at 281
	290	·			
		TD @ 291'			1
	_	3/28/91			
	300				
NOTES:					
PROJECT BORING		006-18E B-C1W		LING LOG	
ELEVATI		520	THE ECONOM	TATED EARTH SCI C GEOLOGISTS / ENGINEE LND, WASHINGTON 9803:	RING GEOLOGISTS

	LEGEND	DRILLING METHOD:			
2,2	SANDY GRAVEL WITH COBBLES				
5000 5000	SANDY GRAVEL  SANDY GRAVEL  REVERSE air circulation				
	POORLY SORTED SAND				
	WELL SORTED SAND	WELL SORTED SAND			
	DIAMICTON	Continuous			
	SILT - CLAY PEAT	WATER LEVEL			
公司	BEDROCK SILTY	TIME			
			WATER		
STRATA	DEPTH Initiated 2/6/91 DESC TOPSOIL	RPTON	TABLE(S)		
	200 dobble zone 16	52-38, drill bit pushing			
NOTES:					
PROJEC	T NO. 9006-18E	DRILLING LOG			
BORING ELEVAT	NO. EB-C2	ASSOCIATED EARTH SCIE ECONOMIC GEOLOGISTS / ENGINEERI • KIRKLAND, WASHINGTON 98033 •	NG GEOLOGISTS		

		SANDY G SANDY G POORLY S WELL SON	SORTED SAND	DRILLING METHOD: Reverse  SAMPLING METHOD  Continue  WATER LEVEL  DATE  TIME		circ	ulatin
	STRATA	DEPTH	DESCR	IPTION			WATER TABLE(S)
		-	As above				
77'		- 10	Brown, dry, sou				
		- 40 - 90	Brown, moist, fine scattered graves occassional still combles with d	lenses and epth.	le		
	NOTES:	100	gravelly cobbles	and boulders	98-10	06	<u> </u>
	PROJECT BORING N ELEVATION PAGE 2	)N	06-18E -C2	ASS ECON	MIC GEOLOGIS	ARTH SCIE	INCES, INC. ING GEOLOGISTS  206-827-7701

	ı	LEGEND	DRILLING METHOD:	,			
300	SANDY	GRAVEL WITH COBBLES	Reverse air circulation				
6000 6000	SANDY (	GRAVEL	r)everse cui	ciraxiair			
	POORLY	SORTED SAND	continuous				
	WELL SO	RTED SAND					
	DIAMICTO	N					
	SILT - CL	PEAT	WATER LEVEL				
公沙	BEDROCK	SILTY	TIME				
STRATA	DEPTH	DESC	RIPTION		WATER		
		s: 30			TABLE(S)		
		Gravelly cobbles	und boulders	78-106			
		Brown moist fine	e to coarge some	x w/ cobbre	3		
	110	Grading into fi	ne said w/ c	lepth			
		Burns mast from	e to medium s	sand w/			
	-	Brown, moist, find occassional arau	els. Containing	sint/clay on			
	120	occassional arau on gravels. Grading into fine Clasts	sand, a Contain	ino, clay	1		
		Clasts	W( 110 .				
	F						
	130	TD 128 2/6/91	kada karan na Amerika an makarina samai ahin salahi sara manan asaan sa karan manan karan sama sa sa sa sa sa	Manadarti vati vati vati anti en persona esta el de la constitució de la constitució de la constitució de la c	esti Pitronia. Esti della compilazioni con esti con		
	_			Section 1985			
	_						
	140						
	-						
	- 150						
NOTES:	100						
PROJEC	T NO. 911	206-18E	DR	ILLING LOG			
		5-03	<b>J</b>				

	1	LEGEND	DRILLING METHOD:					
2.5	SANDY	GRAVEL WITH COBBLES	Reverse air circulation					
6: 0c	SANDY (	GRAVEL	Acverse all circulation					
	POORLY	SORTED SAND	SAMPLING METHOD:					
:::::::	WELL SO	RTED SAND	Continuous					
333	DIAMICTO	N						
	SILT - CL	AY PEAT	WATER LEVEL					
1737	BEDROCK	SILTY	DATE					
1577			TIME					
STRATA	DEPTH	Initiated DESCR	IPTION		WATER TABLE(S)			
		Brown, moist, sil	ty, gravelly, fi	ine to	/			
	coarse sand with cobbles. Containing silt/							
	10							
		Brown, moist, sandy, cobbly gravels.						
	20	Increase in sand	content 18'-19'.					
		Brown, dry to mois	st. siltv. grave	elly, fine				
	30	to coarse sand wit	th cobbles.					
		Brown, moist, sand	ly, cobbly grave	els.				
	_							
	<del>-</del> 40	Cobble zone 38'-4(	) ' .					
		John Jone 30 1	•					
	<b>-</b> 50	Cobble zone 48'-50	)' <b>.</b>					
NOTES:								
PROJEC	T NO. 90	006-18E	DRIL	LING LOG				
BORING	NO.	B-C3	ASSOC	MATED EARTH S				
e.	ELEVATION 545  ECONOMIC GEOLOGISTS / ENGINEERING GEOLOGISTS  PAGE 1 OF 3  • XIRKLAND, WASHINGTON 98033 • 206-827-7701							

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		LEGEND		DRILLING METHO	D:			
22	SANDY GRAVEL WITH COBBLES SANDY GRAVEL			Reverse air circulation				
:00°								
	POORLY	SAMPLING METH	OD :					
	WELL SORTED SAND			Continuous				
		U. Carrott-Surfe	25.5	WATER LEVEL		T		<del></del>
	SILT - CL	49.99.15.79.	PEAT	DATE				
经过	BEDROCK		SILTY	TIME				
STRATA	DEPTH		DESCR	PTION			4	WATER
		Brown	moist sand	ly, cobbly gra	uvels		7.	ABLE(S)
		DI OWII,	morse, same	ly, cobbly give	IVCIB.			
	60			htly silty, g			-	
			to coarse san clay on grave	d with scatte	ered co	bbles.		
	-	Cobble	zone 61'-65	; · .				
					e)à		l	
	70	Cobble	zone 69'-75	3 t .			n n	
							į	
	_	Brown,	dry, silty,	sandy gravel	s with	cobbl	les.	
	80	Brown,	dry, gravel	ly cobbles.				
	-						İ	
	- ₉₀							
	_							
	100							
NOTES:								
PROJECT	r <b>NO.</b> 900	06-18E		D	RILLING	LOG		
BORING ELEVATI		B-C3 545			SOCIATED			
i	OF 3				NOMIC GEOLOG (IRKLAND, WAS			

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		LEGEND		DRILLING METH	OD:				
SANDY GRAVEL WITH COBBLES			Reverse air circulation						
POORLY SORTED SAND  SAMPLING METHOD:  Continuous									O:
	DIAMICTO	N			<del></del>	<del></del>	· · · · · · · · · · · · · · · · · · ·		
=====	SILT - CL.	AY	DATE				<del> </del>		
公汉	BEDROCK		SILTY	TIME			<del>                                     </del>	+	
STRATA	DEPTH		DE 9.C	RIPTION				WATER	
J. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	DEFIN						T	ABLE(S	
		As abo	ve. Boulde	r 101'-102'.					
		Brown,	dry, cemen	ted (?), sand	y grav	els.(Ha	ard di	rilli	
	110	Brown,	moist, fin	e to medium s . Containing	and wi	th			
	_	with d	epth. Silt	/clay on grav	els.	gravers			
							į		
	120								
	120	Becomi	ng slightly	silty 120'-1	30'.				
	_								
							l		
	130	Prom	moiat ali	ghtly silty,	finos	and			
		DIOWII,	morse, sir	gitty Sirty,	TIME 5	anu.			
	_	Becomi	ng very sil	ty 135'-137'.					
	140								
	_	TD @ 1 2/7/91							
		_,,,,,							
	 150								
NOTES:									
PROJEC	T NO. 90	006-18E		38 38 38 38 38 38 38 38 38 38 38 38 38 3	DRILLIN	a Loa			
BORING	-	В-С3				D EARTH S Logists / Engl	SCIENCE	S, INC.	
ELEVAT	ION	545			COMOUNE CEN	OCISTS / FINCH	AKEEDING OF		

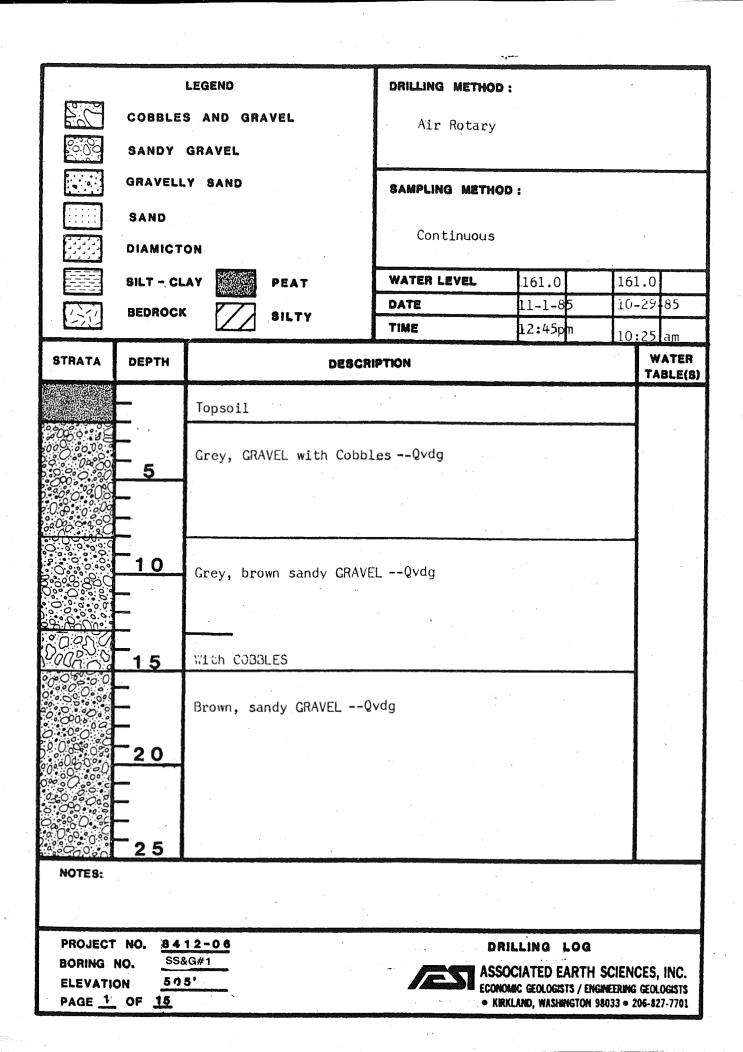
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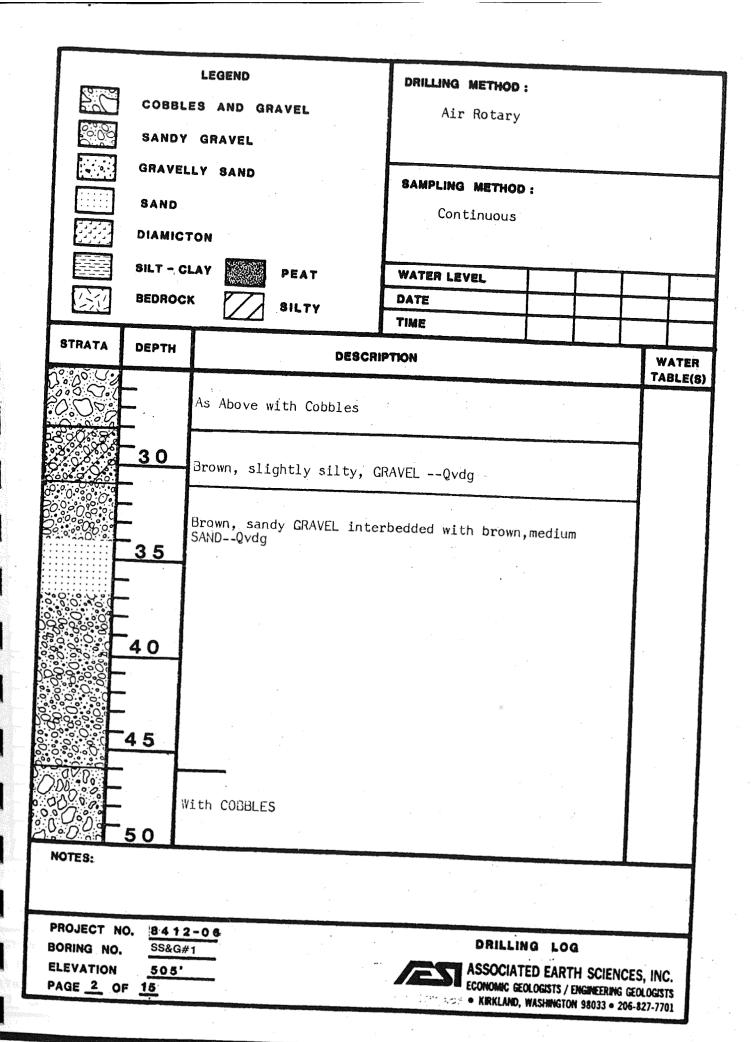
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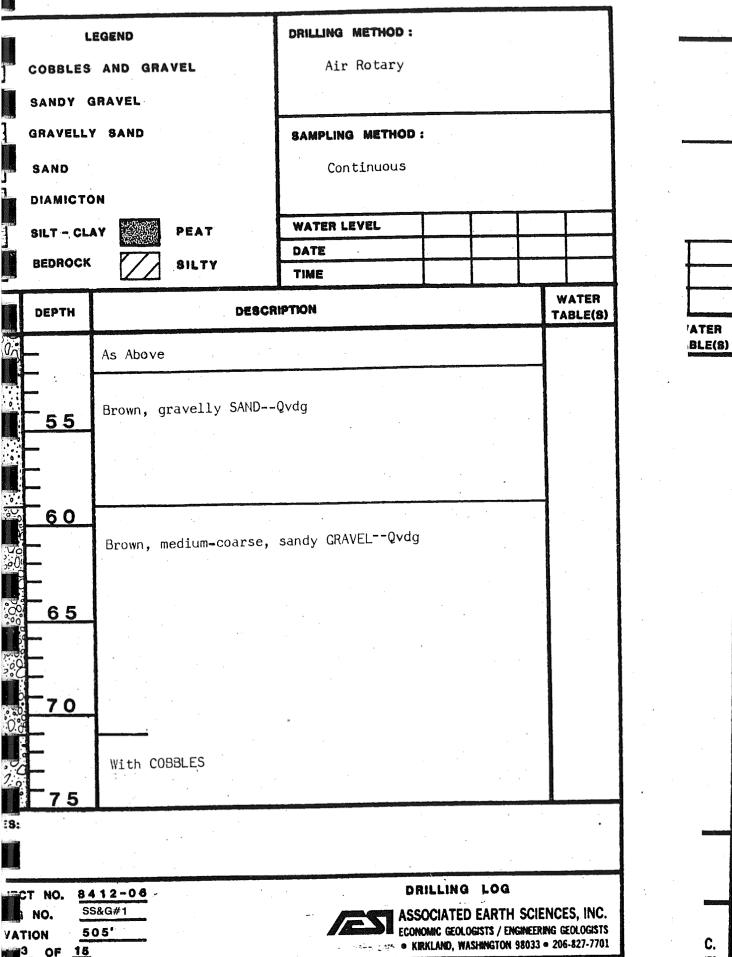
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CAROLINA CONTRACTOR

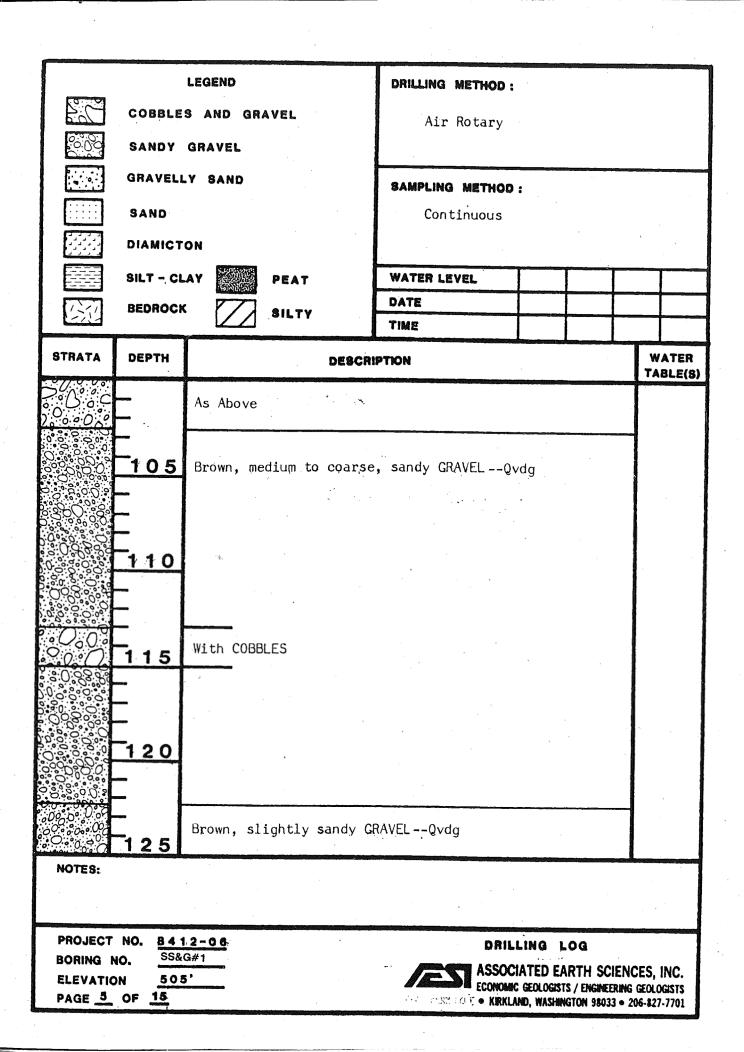
Walter Vote







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	!	LEGEND	DRILLING METHOD:					
264	COBBLES	S AND GRAVEL	Air Rotary					
50.00°	SANDY	GRAVEL						
	GRAVELL	Y SAND	SAMPLING METHOD:					
::::::	SAND		Continuous					
	DIAMICT	ON	·					
	SILT - CL	AY PEAT	WATER LEVEL					
737	BEDROCK	(850),520	DATE					
			TIME					
STRATA	DEPTH	DESCR	IPTION		WATER TABLE(8)			
		As Above						
	_	Brown, medium to coars	e sandy GRAVELQvdg	, , , , , , , , , , , , , , , , , , , ,				
	130			·. ·				
		J.						
	135							
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	140							
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000000								
	145							
:0:0:0:0:0	-							
	150	Brown, gravelly SAND-	-Qvdg					
NOTES:								
	•							
PROJEC	T NO. 84	12-06	DRIL	LING LOG				
BORING	NO. SS	&G#1	ASSOC	IATED EARTH SC	IENCES, INC.			
B	ELEVATION 505'  ECONOMIC GEOLOGISTS / ENGINEERING GEOLOGISTS  PAGE 8 OF 15  KIRKLAND, WASHINGTON 98033 • 206-827-7701							