oreh	ole I	Diam	(in.): 3			To	tal Den	th (ft): 0).5	Boring ID: HZB Project: SSFL ISR	A Sampling - Outfal	l 008 Area						_
orthi				34.35				t): 1796		Job Number: 189161			py Valley Sοι	ıth - I	HVS	-2Δ		_
			07-0					e: 12:0		Logged By: S. Daw			By: M. Milm				.	_
			: 07-0					ne: 12:1		Drilling Contractor: B			umentation: I		w.,,,	,	•	_
		H ₂ O (1			V/A			ne: N/A		Drill Rig Type/Method:		1. 1010 11100						_
			Drillin					ne: N/A		Driller's Name: Mike								_
						•			partial vegetat	tive cover at surface	Well Comp. Date:	N/A	Completion	Time	. N	I/A		_
ampl									steel sleeve		Soil Backfill Date:		Backfill Time			IR.		_
3	be	Recovery (%)		PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			- I		% of	Sand	il
× Šěř	San	Rec (%)	Blo	PID	Wat	O Dep								Gravel	_	Med.	Fine	
	s						•	SM	Silty Sand, sandstone t	yellowish brown (10YR fragments, mica preser	5/4), loose, dry, fine nt [Alluvium]	e gravel consisti	ng of	10	20	20	15	3
							.: 41#144.: 4		Total Depth	n = 0.5 ft; terminated pri	or to refusal.							T
						1-			Collected se	oil sample S001 at 12:1	10.							
									Backfilled v	vith auger cuttings.								
						-												
						2-												
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						3-												
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	MW Diam		,			tal Da-	th /ft\. ^		Boring ID: HZB: Project: SSFL ISRA		100 Auc -						_
Borehole I							th (ft): 0			Sampling - Outfall (41-				_
Northing (101.30				t): 1796		Job Number: 1891614			ppy Valley Sou				_	_
Orill Start							e: 12:18		Logged By: S. Daws			I By: M. Milm		arris	i, P.C	j.	_
Orill Finish							ne: 12:2		Drilling Contractor: B.		Fleid Insti	rumentation: I	N/A				_
Depth 1st		_		N/A			ne: N/A		Drill Rig Type/Method:	_							_
Depth H ₂ C							ne: N/A		Driller's Name: Mike		NI/A	0	T:		1/4		_
									ted gully just to E	Well Comp. Date:		Completion			I/A		_
	Gra	D Sam	ipie co	liec	tea in t	b-inch s		steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Time		Est.	2:23 % of		,il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Silty Sand	rellowish brown (10YR	Description	eandetone arra	avel mica	tr Gravel	Coarse Sand	Med. Sand	Eine Sand	
S					-		SIVI	present [Fill]		<i>514)</i> , 100se, ary, fille s	sandstone gra	ivei, iilica	l I		20	33	
								Total Depth	= 0.7 ft; refusal on Cha	tsworth Formation Sa	andstone.						
					1-	†		Collected so	oil sample S001 at 12:20).							
									ith auger cuttings.								
					-			W	aaga. aatanga.								
					2-												
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			1	1 [1		1					1	1	1		

orehole	Diam	(in \· 3			To	tal Dec	th (ft): 0		Boring ID: HZBS	Sampling - Outfall	008 Ares						_
orthing (30.06				:): 1796		Job Number: 1891614			py Valley Sou	.th	шие	24		_
rill Start			1-2009				: 12:2		Logged By: S. Daws			By: M. Milm					_
rill Finisi							ne: 12:3		Drilling Contractor: B.I			umentation:		aiii	5, F.C	J.	
epth 1st				N/A			ne: N/A		Drill Rig Type/Method:		T leid illisti	umentation.	IV/A				_
epth H ₂ 0							ne: N/A		Driller's Name: Mike I								_
omment									Dillier's Name. Wilke i	Well Comp. Date:	N/A	Completion	Time	· I	N/A		_
								stool sloovo							12:35		_
	Gra	D Sam	ріе сс					steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Tim		Est.	% of		il T
Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	211. 2		Description			Gravel		Med. Sand	Fine Sand	
s					-		SM	Silty Sand, y sandstone fr	rellowish brown (10YR stagments, mica present	6/4), loose, dry, fine [Alluvium]	gravel consisti	ng of	5	10	20	30	;
						<u> </u>		Total Depth	= 0.7 ft; terminated pric	or to refusal.							+
					1-												
								Collected so	il sample S001 at 12:30	J.							
					-			Backfilled wi	th auger cuttings.								
					2-												
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	ИW				T_	4-1.5	41- 750		Boring ID: HZB		1.000.4						—
Borehole					· · · · · · · · · · · · · · · · · · ·										—		
Northing (990.85														_
Orill Start			1-2009								I			arris	, P.C	€.	
Orill Finisl											Field Inst	rumentation: I	N/A				
Depth 1st		•		N/A													_
Depth H ₂ 0								•									
									tion 3 ft to E			Completion	Time		I/A		
	Gra	b sam	ple co	llect	ted in 6	6-inch	stainless	steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Time			2:06		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Description Sm/ML Silty Sand / Sandy Silt, brownish yellow (10YR 6/6), loose, dry, slightly clayey mica present [Alluvium]					, alovov	Gravel	Coarse Sand	Med. Sand	Fine Sand		
S					1-	SM/ML Silty Sand / Sandy Silt, brownish yellow (10YR 6/6), loose, dry, slightly clayey,					y clayey,			20	30	5	
~					2-			Total Depth =	1.8 ft; refusal on Cha	atsworth Formation	Sandstone.						T
					_			Collected soil	sample S001 at 12:0	0.							
										•							
					_			Backfilled with	n auger cuttings.								
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	MW		,			tal Da	th /ft\. 4		Boring ID: HZB		000 Arca						_
Borehole				i			th (ft): 1			Sampling - Outfall			41- 1				_
Northing			211.65				t): 1796		Job Number: 1891614			ppy Valley Sou				_	_
Orill Start							e: 12:5		Logged By: S. Daws			I By: M. Milm		sarrıs	S, P.C	j.	_
Orill Finis							ne: 13:0		Drilling Contractor: B.		Fleid Insti	rumentation: I	N/A				_
Depth 1st				N/A			ne: N/A		Drill Rig Type/Method:								-
Depth H ₂							ne: N/A		Driller's Name: Mike		NI/A	0	T :		1/4		_
									ft boulder nearby	Well Comp. Date:		Completion			N/A		_
	S: Gra	ab sam	тріе со	OHEC	tea in (b-inch s		steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Time		Est.	13:03		 .ii
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Silty Sand k		Description	ocieting of con	datana	rd Gravel	Coarse Sand	Med. Sand	S Fine Sand	
S					1-	-	SIVI	fragments, n	prown (10YR 5/3), loose nica present [Alluvium] = 1.1 ft; refusal on Cha			asione	u	15	15	30	
					-	1		Collected so	oil sample S001 at 13:00	J.							
								Backfilled wi	ith auger cuttings.								
					2-	1											
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	I	I	1	1 1	10-	1		1					1	1	1		

Borehole Diam. (in \· 2		Tot	tal Depth) (ft): 1		oring ID: HZB	A Sampling - Outfall	NNS Area						
Northing (ft):	267214.0	27		sting (ft)			Number: 189161			py Valley Sou	ıth I	UV6	2 ^		
Drill Start Date:				art Time:			gged By: S. Daw			By: M. Milm					
Drill Finish Date:				nish Time			lling Contractor: B			<u>ыу. М. МШТ</u> umentation: I		airis	, r.c	.	
Depth 1st H ₂ O (ff		N/A		te / Time			II Rig Type/Method		Field IIISti	umentation. I	N/A				
Depth H ₂ O After				te / Time			ller's Name: Mike								
						ed wood/organic		Well Comp. Date:	N/A	Completion	Time	· N	N/A		
Samplers: Gra l							s at surface	Soil Backfill Date:		Backfill Time			2:54		
	Sample	Conect	eu III e			Steel Sieeve		Soil Backilli Bate.	07-01-2003	Dackilli Tilli			% of		il
Sample Interval Retained Sample Type Recovery (%)	Blow Count/6" PID (ppm)	Water Level	Depth (feet)	Graphic Log	© USCS Soil ⊠ Classification	Silty Sand vall		Description	a present [Allund	ψω η	Gravel	Coarse Sand	Med. Sand	Pine Sand	Cilt/Cloy
s			1-		SIVI			atsworth Formation S		numj		5	20	40	
						Collected soil s	ample S001 at 12:	50.							
			1			Backfilled with	auger cuttings								
			2												

W	_	ΜW					4-15	41- /ft\ *	_	Boring ID: HZB		000 4						—
			(in.): 3					th (ft): 1		•	Sampling - Outfall							_
Northi				163.78				t): 1796		Job Number: 1891614			opy Valley Sou					
		Date:		1-2009				e: 12:3 8		Logged By: S. Daws		I	By: M. Milm		arris	, P.C) .	
			07-0					ne: 12:4 2	2	Drilling Contractor: B.		Field Inst	rumentation: I	N/A				_
		H ₂ O (f			N/A			ne: N/A		Drill Rig Type/Method:								_
			Drilling					ne: N/A		Driller's Name: Mike								_
									sh, ash at sur	face	Well Comp. Date:		Completion			I/A		_
	lers:	Gra	b sam	iple co	ollec	ted in (6-inch	stainless	steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Time			2:44		_
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Siltv Sand. I	i brown (10YR 5/3), loose	Description	present [Alluv	ium1	Gravel	Coarse Sand	Med. Sand	Fine Sand	
	S					1-		9		= 1.2 ft; terminated pric		p. 555. 1, 114.						
						-			Collected so	oil sample S001 at 12:4) .							
						2-			Backfilled w	ith auger cuttings.								
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		Diam.						th (ft): 0			Sampling - Outfall							
Northi				903.59				t): 1796		Job Number: 1891614			py Valley Sοι					
		Date:		1-2009				e: 08:5		Logged By: S. Valer			By: M. Milm		arris	i, P.C	3.	
		n Date:						ne: 08:5		Drilling Contractor: B.		Field Instr	umentation: I	N/A				
		H ₂ O (f			N/A			ne: N/A		Drill Rig Type/Method:								_
		O After						ne: N/A]	Driller's Name: Paul I								
Comn	nent	s: Tall	grass	and v	weed	ls at su	ırface				Well Comp. Date:		Completion	Time		N/A		
	lers	Gra	b sam	ple co	ollect	ted in 6	3-inch	stainless	steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Time			8:55		
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	0:14/01
	s							CL	Sandy Lean plasticity fine	Clay, dark brown (10Y es, no cementation, trace	R 3/3), soft, moist, s ce rootlets and inse	subrounded sar cts [Alluvium]	nd, low		tr	5	25	7
***						-	7.7.74.7		Total Depth :	= 0.5 ft; terminated price	or to refusal.							$^{+}$
						1-			Collected sol	il sample S001 at 08:5	3.							
									Backfilled wit	th auger cuttings.								
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		Diam.						th (ft): 0	Project: SSFL ISRA Sampling - Ou			.4I.		^		
Northi				916.73				t): 1796			appy Valley Sou					_
		Date:		1-2009				e: 09:0	Logged By: S. Valenzuela		ed By: M. Milm		sarrıs	S, P.C	j.	
		n Date:						ne: 09:0	Drilling Contractor: B.L. Hall	Field Ins	strumentation:	N/A				
		H ₂ O (f	-		N/A			ne: N/A	Drill Rig Type/Method: Hand Auger							_
		O After						ne: N/A	Driller's Name: Paul ller	-4 N/A	0	-		1/4		
							oil at su		Well Comp. D		Completion			N/A	•	
	iers:	Gra	ib sam	ipie co	DIIECT	tea in t	o-inch s		el sleeve Soil Backfill D	ate: 07-01-2009	Backfill Tim			9:05 % o		
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
	s					·		CL	andy Lean Clay, light yellowish brown (10YR 6/4) w plasticity fines, medium dry strength, no cemer	soft, dry, subrou tation, trace root	nded sand, ets [Alluvium]		5	5	20	7
\bowtie						-			otal Depth = 0.5 ft; terminated prior to refusal.							+
						1-	-		ollected soil sample S001 at 09:04.							
									ackfilled with auger cuttings.							
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		Diam.						th (ft): 1			Sampling - Outfall							_
lorth				911.86				t): 179 6		Job Number: 1891614			py Valley Sou					
		Date:						e: 09:1		Logged By: S. Valer		Reviewed	By: M. Milm	an-B	arris	, P.C	€.	
orill F	inish	Date:	07-0	1-2009	9			ne: 09:2		Drilling Contractor: B.		Field Instr	umentation: I	V/A				
		H ₂ O (f	•		N/A			ne: N/A		Drill Rig Type/Method:								_
Depth	H ₂ C) After	Drillin	g (ft): I	N/A	Da	te / Tin	ne: N/A		Driller's Name: Paul I			T					
Comr	nent	s: Tall	grass	and e	expo	sed so	il at su	rface			Well Comp. Date:	N/A	Completion	Time	: N	I/A		_
	lers:	Gra	b sam	ple co	ollect	ed in 6	3-inch s	stainless	s steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Time			9:22		
Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Condy Cilby		Description	um etiff day l	ou placticity	Gravel	Coarse Sand	Med. Sand	Fine Sand	
	S					1-		CL/ML	Sandy Silty fines, low to	Clay, light yellowish bro medium dry strength [/ soft, moist	wn (10YR 6/4), medi Nlluvium]	ium stiff, dry, k	ow plasticity		5	10	20	
××						-	X Y / X /		Total Depth	= 1.5 ft; terminated prid	or to refusal.							T
									Collected so	oil sample S001 at 09:2	2.							
						2-					==							
									Backfilled w	ith auger cuttings.								
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	MW	Н						Boring ID: HZBS0168					_
Borehole							th (ft): 0						
Northing			29.89				t): 1796						
Orill Start							e: 09:2			arris	, P.C	3.	
Orill Finis							ne: 09:3		N/A				
Depth 1st Depth H ₂ 0		-		N/A N/A			ne: N/A	Drill Rig Type/Method: Hand Auger Driller's Name: Paul Iler					
Comment								Well Comp. Date: N/A Completion	Time	· N	l/A		
Samplers								steel sleeve Soil Backfill Date: 07-01-2009 Backfill Time			9:35	 i	
<u> </u>		J Cum	p.o o					Tool Basisin Base. 47 47 2000 Basisin Fine		Est.	% of		il
ype				ē	et)	o-	i į			and	5	_	
ed T	ery	.9/	μď	Fe	(fe	ic I	So	Description	_	e S	San	anc	5
Sample interval Retained Sample Type	00	Blow Count/6"	PID (ppm)	Water Level	pth	Graphic Log	CS		Gravel	Coarse Sand	Med. Sand	Fine Sand	Silt/Clay
Sar Sar	Recovery (%)	នីខិ	딤	Wa	Depth (feet)	Gr	USCS Soil Classification		Ş	ပိ	Me	Fi	1
					0-		CL	Sandy Lean Clay, yellowish brown (10YR 5/4), soft to medium stiff, dry, low to		tr	10	20	
								medium plasticity fines, medium dry strength, trace rootlets [Alluvium]					
s ∣					-								
								Total Depth = 0.8 ft; terminated prior to refusal.	-				\vdash
					1-			Collected soil sample S001 at 09:35.					
					_			Backfilled with auger cuttings.					
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Borehole							th (ft): 1		•	Sampling - Outfall							_
Northing			25.69				t): 1796		Job Number: 1891614			ppy Valley Sοι					_
Orill Start			1-2009				e: 09:4		Logged By: S. Valer		I	d By: M. Milm		Barris	s, P.0	€.	
Orill Finis							ne: 10:0		Drilling Contractor: B.		Field Inst	rumentation: I	N/A				_
Depth 1s				N/A			ne: N/A		Drill Rig Type/Method:								_
Depth H ₂							ne: N/A		Driller's Name: Paul								_
Commen	ts: Tall	grass	and e	expo	sed so	il at su	rface			Well Comp. Date:	N/A	Completion	Time	e: N	N/A		_
	: Gra	b sam	ple co	ollec	ted in 6	6-inch	stainless	steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Time			0:00		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		1	Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
s s	E C	шо		^	1-		ML	Sandy Silt, y dry strength	yellowish brown (10YR , trace rootlets [Alluviur	5/4), medium stiff, d	iry, low plastici	ty fines, low		tr	10	20	
XX						-4.34 -15.4		Total Depth	= 1.6 ft; terminated prid	or to refusal.							t
					2-			Collected so	oil sample S001 at 09:5	3.							
									ith auger cuttings.								
					-	-		Badiamoa W	nur aagor oattingo.								
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	1 1		1	1	10-	1							1	1	i .		

	MW					4-1-5	41- 750		Boring ID: HZBS		000.4						—
Borehole							th (ft): 1			Sampling - Outfall							—
Northing (36.57				t): 1796		Job Number: 1891614			opy Valley Sοι					—
Orill Start	Date:	07-0	1-2009	•			e: 09:5		Logged By: S. Valen		Reviewed	By: M. Milm	an-E	Barris	s, P.C	3.	
Orill Finis	h Date:	07-0	1-2009)			ne: 10:0	5	Drilling Contractor: B.L	Hall	Field Inst	rumentation:	N/A				
Depth 1st				N/A			ne: N/A		Drill Rig Type/Method:								
Depth H ₂ 0							ne: N/A		Driller's Name: Paul I								
Comment	s: Tall	grass	and e	expo	sed so	il at su	rface			Well Comp. Date:	N/A	Completion	Time	e: I	N/A		
Samplers	: Gra	b sam	ple co	llect	ed in 6	6-inch s	stainless	steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Tim	<u>e:</u>	•	10:05)	
₹							_							Est.	% of	So	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
s					1-		ML SP-SM	strength [Allu	rellowish brown (10YR suvium] ed Sand with Silt, yellow						10	90	
					-			Total Depth :	= 1.6 ft; refusal on weat	thered Chatsworth F	ormation San	dstone.					\perp
					_							· · · · · · · · · · · · · · · · · · ·					
					2-			Collected so	il sample S001 at 10:01	l.							
								Backfilled wi	th auger cuttings.								
					-	-											
					3-	1											
					•												
					_												
					4-	1											
					-	1 I											
					5-	ļ											
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					9-	1											
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	- 1		i .	1 I													- 1

	MW				<u> </u>				ID: HZB								
Borehole							th (ft): 1			A Sampling - Outfal							_
Northing			951.44				t): 1796		ber: 18916 1			opy Valley Sou					
Drill Start	Date:	07-0	1-2009	9			e: 10:0		By: S. Vale		Reviewed	By: M. Milm	an-E	Barris	s, P.0	€	
Drill Finis	h Date	: 07-0	1-2009	9	Fir	nish Tin	ne: 10:2	Drilling C	ontractor: B	s.L. Hall	Field Insti	rumentation: I	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig	Γype/Method	: Hand Auger							_
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A	Driller's I	lame: Paul								
Commen	s: Spa	arse ve	egetati	ion a	and exp	posed s	oil at su	ace		Well Comp. Date:	N/A	Completion	Time	e: I	N/A		
	: Gra	b sam	ple co	ollect	ted in (6-inch	stainless	steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Time			10:20		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Silty Sand, yellowish	orown (10VR	Description	a moist		Gravel	Coarse Sand	% on Med. Sand	S Fine Sand S	
s					1-		SIVI	Total Depth = 1.0 ft;	erminated pr	ior to refusal.	r, moist				10		
					2-	_		Backfilled with auger	cuttings.								
					3-	-											
					4-	_											
					5-	-											
					6-												
					7-												
					8-	-											
					9-	-											
					10-	-											

orck -	lo D:	·m /	in \. ^			-	tal D -	th (tt): •) E	Boring ID: HZB		I 000 A						_
orehol								th (ft): 0			A Sampling - Outfal			41- 1		0 D		_
orthing				71.19				t): 1796		Job Number: 189161			ppy Valley Sοι					_
				1-2009				e: 10:1		Logged By: S. Vale			By: M. Milm		arris	s, P.C	٠.	_
				1-2009				ne: 10:3	<u> </u>	Drilling Contractor: B.		Field Inst	rumentation: I	N/A				_
epth 1					N/A			ne: N/A		Drill Rig Type/Method:								_
				g (ft): I				ne: N/A		Driller's Name: Paul								_
							il at su				Well Comp. Date:		Completion					_
ample •	rs:	Grat	sam	ple co	ollect	ed in 6	inch s	stainless	steel sleeve		Soil Backfill Date:	07-01-2009	Backfill Tim			0:30		_
Retained	Sample Type Recovery	(%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
8	3							SM	Silty Sand,	yellowish brown (10YR	5/4), medium dense	e, moist				10	70	2
8				Total Depth	n = 0.5 ft; terminated pri	or to refusal.							H					
						1_			Collected s	oil sample S001 at 10:2	28.							
			1— SM S	Backfilled v	with auger cuttings.													
						2-												
						-												
						3-												
						_												
						4-												
						_												
						5-												
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						6-												
						7												
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						8-												
						-												
						9-												
						-												

:	VH			1_			Boring ID: HZBS0173							—
Borehole Dian						th (ft): 4	Project: SSFL ISRA Sampling - Outfall 00							_
lorthing (ft):		079.03				t): 179 6			py Valley Sou					
Orill Start Date		20-2009				e: 09:3	Logged By: M. Milman-Barris		By: S. Valen		a, P.	G.		
Orill Finish Da						ne: 09:5	Drilling Contractor: B.L. Hall		umentation: F	PID				
epth 1st H ₂ O			N/A			ne: N/A	Drill Rig Type/Method: Hand Auger (no slam	n bar)						_
epth H ₂ O Aft						ne: N/A	Driller's Name: Allison Ruotolo							
							ace (vegetation cleared earlier) Well Comp. Date: N		Completion	Time		I/A		
	rab san	ple co	ollecte	ed in 6	3-inch s	stainless	eel sleeve Soil Backfill Date: 08	8-20-2009	Backfill Time			9:59		
Retained Sample Type Recovery	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description			Gravel	Coarse Sand	Med. Sand	N Eine Sand	
amplers: Grab sample collected in 6-inch stainless steel sleeve Soil Backfill Date: 08-20-2009 Backfill Time														
S				4 - 5			Total Depth = 4.0 ft; refusal on Chatsworth Formation San Collected soil samples S001 at 09:40 and S002 at 09:57. Backfilled with auger cuttings.							
				6 - 7										
				8										

Danete !	- D:	/:-	١. ٠			-	4-1 D -	LL /£1\ =	Ducinets CCFLICDA Committee Confestions Confestions					
<u>Borehol</u>				04.40				th (ft): 5						
Northing				84.12				:): 1796						
Orill Sta)-2009			art Time		,		Ia, P	.G.		
Orill Fin								ne: 10:5		PID				
Depth 1					N/A			ne: N/A	Drill Rig Type/Method: Hand Auger (no slam bar)					
Depth F	_							ne: N/A	Driller's Name: Allison Ruotolo					
Comme	nts: I	W e	nd of	fsink	hole	next to	o ruste	d pipelir	e, dry bare soil at surface Well Comp. Date: N/A Completic	n Tim		N/A		
Sample	rs: (Grab :	sam	ple co	llect	ed in 6	S-inch s	tainless	steel sleeve Soil Backfill Date: 08-20-2009 Backfill Ti			NR		
Sample Interval Retained	e i ype		9/1	(mdo	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description		Sand	Med. Sand		
Sample In Retained	Recovery	(%) Blow	Count/6"	PID (ppm)	Wate	Depti	Grap	USCS		Gravel	Coarse	Med.	Fine Sand	
						U		CL	Lean Clay, yellowish brown (10YR 5/4), soft, dry to moist, very weak cementation, no debris [Fill]					100
× s	3			0.5		-								
						1-								
						_								
						2-								
						3-			→ white plastic sheeting debris					
						-		- CL	Lean Clay with Sand, light yellowish brown (10YR 6/4), soft, dry to moist, no cementation, no debris [Weathered Chatsworth Formation?]		-	+-	20	80
						4-								
						_								
S	3			0.5		5-			Total Depth = 5.0 ft; terminated prior to refusal.	_				_
									Collected soil samples S001 at 10:35 and S002 at 10:56.					
									Backfilled with auger cuttings.					
						6-								
						-								
						7-								
						_								
						8-								
						_								
						9-								
						-								

<u> </u>	_	MW				1_				Boring ID: HZBS		200.4						—
		Diam.						th (ft): 1			Sampling - Outfall							_
North				090.14				t): 1796		Job Number: 1891614			ppy Valley Sοι					
Drill S	tart	Date:	10-0	1-2009	9			e: NR		Logged By: A. Golde	-		d By: V. Vatha		in, P	.G.		
Drill F	inis	h Date	: 10-0	6-2009	9			ne: NR		Drilling Contractor: En	virosolve	Field Inst	rumentation: I	N/A				
		H ₂ O (1	-		N/A			ne: N/A		Drill Rig Type/Method:								
		O After						ne: N/A		Driller's Name: A. Gol	_							
Comr	nent	s: Soi	l with	mowe	d ve	getatio	n at su	ırface			Well Comp. Date:	N/A	Completion	Time	e: N	N/A		
	lers	: Gra	b sam	ple co	ollect	ted in 6	6-inch s	stainless	steel sleeve		Soil Backfill Date:	10-06-2009	Backfill Time			9:45		
<u>a</u>	_							_								% of	So	il
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			escription			Gravel	Coarse Sand	Med. Sand	Fine Sand	
	S					1-		SM	Silty Sand, y roots and ro	vellowish brown (10YR 5 otlets, no odor, no staini	i/6), loose to mediu ng [Fill]	m dense, dry t	o moist,	5	5	25	30	3
XX						-	394343		Total Depth	= 1.5 ft; refusal on Chat	sworth Formation S	Sandstone.						H
									·									
						2-			Collected so	oil samples S001 at 13:5	u anu 3002 at 14:1	υ.						
									Backfilled w	ith auger cuttings.								
						_												
						3-	1											
						_												
						4-	1											
						_												
						5	†											
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						8												
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						9												
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יש	MW	/Н							Boring ID: HZB	30177							
Borehole	Diam.	(in.): 3	3		To	otal Dep	th (ft): 2	25.0	Project: SSFL ISRA	Sampling - C	outfall 008 Area						_
Northing (044.49		Ea	asting (f	t): 179	6380.27	Job Number: 1891614		Site: Hap	py Valley Sοι	ıth				
orill Start	Date:	10-0	1-200	9			e: NR		Logged By: A. Gold	enberg	Reviewed	By: V. Vatha	anasi	in, P	G.		
rill Finis							ne: NR		Drilling Contractor: Er		Field Instru	umentation: I	N/A				
epth 1st		_		N/A			ne: N/A		Drill Rig Type/Method:	_							_
epth H ₂ 0					Da	ate / Tin	ne: N/A	L	Driller's Name: A. Go								_
Comment										Well Comp.		Completion			I/A		_
	: Gra	ab san	iple co	ollect	ed in	6-inch	stainles	s steel sleeve		Soil Backfill	Date: 10-06-2009	Backfill Time			9:15		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		ı	escription			Gravel	Coarse Sand	Med. Sand	Fine Sand	
s							SM	Silty Sand, dry to mois	dark yellowish brown (1 t, roots and rootlets, no	OYR 4/4) to brodor, no staini	own (10YR 4/3), med ng [Fill]	ium dense,		10	20	30	4
S					2		SM	no staining	yellowish brown (10YR [Colluvium] ots and rootlets	л+), dense, m	ors, roots and rooted	S, TIO OUOT,		10	20		
					16- -												
					18- -	-		Sandstone, [Chatsworth	, dark yellowish brown ([,] h Formation]	0YR 4/4), wea	athered, hard, friable,	moist					
					20-												

		Ή						Boring ID: HZE	550177						
Borehole	Diam.	(in.): 3			То	tal Dep	th (ft): 2	Project: SSFL ISF	A Sampling - Outfall 0	08 Area					
lorthing ((ft):	2670	44.49		Ea	sting (f	t): 1796	0.27 Job Number: 18916	14	Site: Hap	ppy Valley Sοι	ıth			
Orill Start	Date:	10-0	1-2009)	Sta	art Time	e: NR	Logged By: A. Go	denberg	Reviewed	By: V. Vatha	nas	in, P	.G.	
rill Finisl	h Date:	10-0	6-2009)	Fir	nish Tin	ne: NR	Drilling Contractor: I	Invirosolve	Field Inst	rumentation: I	N/A			
epth 1st	H ₂ O (f	t):	1	N/A	Da	ite / Tin	ne: N/A	Drill Rig Type/Method	: Hand Auger						
epth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ite / Tin	ne: N/A	Driller's Name: A. C	oldenberg						
omment	s: Bar	e soil	at sur	face					Well Comp. Date: N	/A	Completion	Time	e: I	N/A	
amplers	: Gra	b sam	ple co	llect	ed in 6	3-inch s	tainless	eel sleeve	Soil Backfill Date: 1	0-06-2009	Backfill Time	e:	(9:15	
Sample interval Retained Sample Type	/ery	9/1	(mdı	Water Level	(feet)	Graphic Log	USCS Soil Classification		Description				Sand	Sand o	
Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	Water	გDepth (feet) 	Graph	USCS		440/70 4/4			Gravel	Coars	Med. Sand	Fine Sand
					 -			Sandstone, dark yellowish brown Chatsworth Formation] (continue	(10YR 4/4), weathered, ed)	hard, friable	, moist				
					22-										
					-			Fotal Depth = 25.0 ft; terminated	prior to refusal per Ben	Stewart.					
					26-			Collected soil samples S001 at 15							
					_			Backfilled with auger cuttings.							
					28 -										
					30-										
					3U— - -										
					32-										
					34-										
					-										
					36- - -										
					- 38-										
					_										

<u> </u>		ИW					4-1 -	41- /£41 - =	Boring ID: HZBS0178					
		Diam.						th (ft): 5						
Northi)59.79				t): 1796						
		Date:		0-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. '			² .G.		
		n Date:						ne: NR	Drilling Contractor: Envirosolve Field Instrumentation	1: N/A				
		H ₂ O (f	-		N/A			ne: N/A	Drill Rig Type/Method: Hand Auger					
		O After					ate / Tin	ne: N/A	Driller's Name: A. Goldenberg					
		s: Soi l								tion Tim		N/A		
	lers	Gra	b sam	ple co	llect	ted in 6	6-inch	stainless	Steel sleeve Soil Backfill Date: 10-06-2009 Backfill	Time:		09:00		
interval I	Гуре	>	_	<u>-</u>	svel	et)	Log	oil ation				.% o		
Sample Interval	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel			Fine Sand	
	S					-		SM	Silty Sand with Gravel, yellowish brown (10YR 5/8 to 5/4), medium dense, dry, roots and rootlets, no odor, no staining [Fill]	15	5 5	30	25	5 2
						1 2		SM Silty Sand with Gravel, yellowish brown (10YR 5/8 to 5/4), medium dense, dry,						4
	S					3- - 4-								
						-	X888		Siltstone, yellowish brown (10YR 5/4), weathered, hard, thinly bedded [Chatsworth Formation]					
						5-			Total Depth = 5.0 ft; refusal on Chatsworth Formation Siltstone.	+				
									Collected call complex COO4 at 11:15 and COO2 at 11:20					
						-	-		Collected soil samples S001 at 11:15 and S002 at 11:30.					
									Backfilled with auger cuttings.					
						6								
						Ū								
						-	1							
						7-								
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						8-	†							
						-								
						_								
						9-	1							
						-								
							'			- 1				

<u> </u>	WW	••							Boring ID: HZB								
orehole l	Diam.	(in.): 3					th (ft): 3		Project: SSFL ISR	A Sampling - Outfal	l 008 Area						
orthing (ft):	2669	88.79		Ea	sting (f	:): 179 6	475.35	Job Number: 189161	14	Site: Hap	ppy Valley Sou	ıth				
rill Start	Date:	09-3	0-2009	9	- 1	art Time			Logged By: A. Gol	denberg	Reviewed	By: V. Vatha	anas	in, P	.G.		
rill Finish	n Date:	10-0	6-2009	•	Fir	nish Tim	ne: NR		Drilling Contractor: E	invirosolve	Field Instr	rumentation: I	N/A				
epth 1st	H ₂ O (f	t):		N/A	Da	ate / Tim	ne: N/A		Drill Rig Type/Method	: Hand Auger							
epth H ₂ C) After	Drilling	g (ft): I	N/A	Da	ate / Tim	ne: N/A		Driller's Name: A. G	oldenberg							
omment	s: Soi	l with	brush	at su	ırface					Well Comp. Date:	N/A	Completion	Time	e: I	N/A		
amplers:	Gra	b sam	ple co	ollecte	ed in 6	6-inch s	tainless	steel sleeve)	Soil Backfill Date:	10-06-2009	Backfill Time	e:	(8:55	;	
														Est.	% of	So	oil
Retained Sample Type	0 SM S					Description			Gravel	Sand	Med. Sand	Fine Sand	Onio				
S	S SM Si m							Silty Sand, moist, root	, dark yellowish brown (ts and rootlets, no odor,	10YR 4/6), loose to r no staining [Colluviu	nedium dense, m]	dry to		5	30	35	3
s	SM Silt mo				Collected	th = 3.0 ft; refusal on Ch soil samples S001 at 12 with auger cuttings.											
					5-												
					6 7												
					8-												

@) I	ΜW	/H							Boring ID: HZB	S0180							
Boreh	ole	Diam	(in.): 3			To	ntal Dei	oth (ft): 2			Sampling - Outfall	NNR Δrea						
Vorthi				94.47	 7			ft): 1796		Job Number: 1891614			oy Valley Sou	th				
		Date:		1-200				e: NR		Logged By: A. Gold			By: V. Vatha		n P	G		
			: 10-0					ne: NR		Drilling Contractor: En	_		imentation: N		, .			
		H ₂ O (1			N/A			me: N/A		Drill Rig Type/Method:		T TOTA THOU	inontation. I					
			· Drillin					me: N/A		Driller's Name: A. Go								
			re soil							2	Well Comp. Date:	N/A	Completion	Time	: N	I/A		
							6-inch	stainless	s steel sleeve		Soil Backfill Date:		Backfill Time			9:50		
																% of		il
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		ı	Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	Silt/Clay
	s					U-		SM	Silty Sand, d	dark yellowish brown (1	0YR 4/4), loose to m	edium dense, o	dry to		5	20	35	40
××						-			moist, rootie	ets, no odor, no staining	 [FIII]							
						_												
						-		SM	Siltv Sand. v	yellowish brown (10YR	5/6), dense, moist, ro	otlets. no odor	<u> </u>		5	25	35	35
						2-			no staining [[Colluvium]	,,,,		,					
						-												
						_												
\bowtie	S					_												
						4												
						7												
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						16-												
						-												
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						=												
						18-												
						.0												
						-			Sandatana	mottled vallowish brave	n (10VP 5/4) to vo=:	nale brown (40	VD 7/2\					+
						_			weathered, h	mottled yellowish brown hard to very hard, moist	ก (เบา ห อ/4) to very t [Chatsworth Format	paie มเดพท (10 tion]	IK 1/3),					
	- 1				1	_	4	i	1	, .,		-		1	1			1

LOG OF BORING OUTFALL008.GPJ BOEING.GDT 12/16/09

	MW				Π.				Boring ID: HZB								_
Borehole						_	th (ft): 2			A Sampling - Outfal							_
Northing			94.47				t): 1796	5371.18	Job Number: 189161			py Valley Sou					_
Orill Start			1-2009				e: NR		Logged By: A. Gold	-		By: V. Vath		in, P	G.		
Orill Finis			5-2009)			ne: NR		Drilling Contractor: E		Field Instr	umentation:	N/A				_
Depth 1s				N/A			ne: N/A		Drill Rig Type/Method:								_
Depth H ₂	O After	Drillin	g (ft): I	N/A	Da	te / Tin	ne: N/A		Driller's Name: A. Go								_
Commen	ts: Bar	e soil	at sur	face						Well Comp. Date:	N/A	Completion	Time				_
	: Gra	b sam	ple co	llect	ed in 6	inch s	stainless	steel sleeve		Soil Backfill Date:	10-05-2009	Backfill Tim			9:50		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	SDepth (feet) 	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
					22-			weathered, Total Depth	, mottled yellowish brow , hard to very hard, mois n = 21.2 ft; refusal on Cl soil samples S001 at 09:	st [Chatsworth Formation	ation] <i>(continue</i> Sandstone.	JYR 7/3), d)					
					 -				with auger cuttings.								
					24- -												
					26-												
					28-												
					- 												
					30-												
					32-												
					34—												
					36-												
					- 38-												
					-												

	MW				T_	4-15	41- 750		Boring ID: HZBS		200 4						—
Borehole							th (ft): 3		-	Sampling - Outfall 0							
Northing (95.25				t): 1796		lob Number: 1891614			ppy Valley Sοι					
Drill Start			7-2009				e: NR		ogged By: A. Golde			d By: B. Mart a		P.G			
Drill Finish							ne: NR		Orilling Contractor: Env		Field Inst	rumentation: I	N/A				
Depth 1st				N/A			ne: N/A		Orill Rig Type/Method:								
Depth H ₂ 0) After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A	D	Oriller's Name: A. Gol								
Comment	s: Bar	e soil	at sur	face						Well Comp. Date: I	N/A	Completion	Time	e: I	N/A		
Samplers	Gra	b sam	ple co	ollect	ted in (6-inch	stainless	steel sleeve		Soil Backfill Date: '	10-27-2009	Backfill Time	<u>e:</u>	- 1	NR		
<u>a</u>							_								% of	So	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			escription			Gravel	Coarse Sand	Med. Sand	Fine Sand	Silt/Clav
s					1-		SM	rootlets, no od	ark yellowish brown (10 dor, no staining [Fill/Slo rown (10YR 4/3) to dark	ppewash]			10	5	25 25	20	
					2		G	no odor, no st	taining [Colluvium]								
s					-			augered [Cha	ght yellowish brown (10 atsworth Formation] = 3.5 ft at deepest of 8 s	step-outs within 5-15	ft to S. SW.	and SE of					_
					4-	-		depths rangin	; refusal on Chatsworthing from 1.3 ft to 3.5 ft. I samples S001 at 10:3			ocation at					
					-			Backfilled all I	locations with auger cu	ittings.							
					5-	-											
					6-	-											
					7-	-											
					8-												
					9-	-											
					10-												

<u>י</u>	MW	п						<u> </u>	Boring ID: HZBS								
Borehole	Diam. (th (ft): 1			Sampling - Outfa	II 008 Area						_
Northing ((ft):	2669	90.56		Ea	asting (f	t): 1796	6550.95	Job Number: 1891614		Site: Hap	py Valley So	uth				_
Orill Start	Date:	10-2	7-2009	9			e: NR		Logged By: A. Golde	enberg	Reviewed	By: B. Mart	asin,	P.G.			
Orill Finisl	h Date:	10-2	7-2009	9	Fil	nish Tin	ne: NR		Drilling Contractor: En	virosolve	Field Instr	umentation:	N/A				
Depth 1st	H ₂ O (ff	t):		N/A	Da	ate / Tin	ne: N/A		Drill Rig Type/Method:	Hand Auger							
Depth H ₂ 0	O After	Drilling	g (ft): I	N/A	Da	ate / Tin	ne: N/A		Driller's Name: A. Go	denberg							
Comment	s: Bar	e soil	at sur	face						Well Comp. Date	N/A	Completion	Time	e: N	I/A		
Samplers	: No s	sampl	e colle	ected						Soil Backfill Date:	10-27-2009	Backfill Tim	e:	1	IR		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		C	escription				Coarse Sand	Med. Sand	Fine Sand	il
Sam Sam	% %	Blov	PID	Wat	ODep			Oilt. Od.	ith O (40VI	2.5/0) t- d			Gravel				
					1-		SM	and cobble-	vith Gravel, brown (10YF size clasts, roots and ro	otlets, no odor, no	ise, dry to moist staining [Fill/Slo	, gravel- pewash]	20	5	20	20	
					-			Total Depth Formation S	= 1.5 ft; attemped 3 ste Sandstone at each locati	p-outs and met ref	usal on Chatswo	orth					
					2-	_		No sample o	collected.								
					-	-		Backfilled al	ll locations with auger cu	uttings.							
					3-	-											
					4-	_											
					5-	-											
					6-												
					7-												
					8-	-											
					9-												
					-	_											

									Boring ID: HZBS								_
Borehole							th (ft): 3			Sampling - Outfall							_
Northing (ft):		51.35				t): 1796		Job Number: 1891614			ppy Valley Sou					—
Orill Start	Date:	10-2	7-2009)			: NR		Logged By: A. Golde	enberg	Reviewed	By: B. Mart	asin,	P.G			
Orill Finish	Date:	10-2	7-2009	•	Fir	nish Tim	ne: NR		Drilling Contractor: En	virosolve	Field Inst	rumentation:	N/A				
Depth 1st	H ₂ O (f	t):	1	N/A	Da	te / Tim	ne: N/A		Drill Rig Type/Method:	Hand Auger							
Depth H₂C) After	Drillin	g (ft): I	N/A	Da	ite / Tim	ne: N/A		Driller's Name: A. Gol	denberg							
Comment	s: Bar	e soil	at sur	face						Well Comp. Date:	N/A	Completion	Time	e: I	N/A		
Samplers	Gra	b sam	ple co	ollect	ed in 6	3-inch s	tainless	steel sleeve		Soil Backfill Date:	10-27-2009	Backfill Tim	e:	ı	NR		
a														Est.	% of	So	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			escription			Gravel	Coarse Sand	Med. Sand	Fine Sand	Cil+/Clay
S					1— - 2—		SM	Silty Sand, b no staining [orown (10YR 5/3), loose (Slopewash/Colluvium)	to dense, moist, roo	ots and rootle	is, no odor,	5	5	30	25	3:
					-			Sandstone, o	grayish brown (10YR 5/	2) to brown (10YR 4	/3), very weat	thered, hard,					
					_			moist, rootie	to [Chatsworth Formatic	nij							
					3-												
s																	
					-			Total Depth	= 3.5 ft; attemped 3 ste	p-outs to NE and me	et refusal on (Chatsworth					
					4				t each location. amples S001 at 10:55 ar	nd S002 at 11:15.							
									I locations with auger cu								
					_												
					5-												
					6-												
					7-												
					8-												
					9-												
					_												

	ΜV	/Н							Boring ID: HZB	S0184							
Borehole	Diam.	(in.): 3	}		Тс	otal Dei	oth (ft): 3	.5	<u> </u>	Sampling - Outfall	008 Area						
Northing			088.40				ft): 1796		Job Number: 1891614			py Valley Sou	uth				
Drill Star			7-200				e: NR		Logged By: A. Gold			By: B. Mart a		P.G.			
Drill Finis	h Date	: 10-2	7-200	9	Fi	nish Ti	me: NR		Drilling Contractor: En	_		umentation:					
Depth 1s	t H ₂ O (ft):		N/A	Da	ate / Tii	me: N/A		Drill Rig Type/Method:								
Depth H ₂			g (ft):	N/A	Da	ate / Tii	me: N/A		Driller's Name: A. Go								
Commen					•				•	Well Comp. Date:	N/A	Completion	Time	: N	I/A		
Samplers	: Gr	ab sam	ple co	ollec	ted in	6-inch	stainless	steel sleeve		Soil Backfill Date:		Backfill Tim			IR		
													1	Est.	% of	Soi	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	ω USCS Soil	Silty Sand	brown (10YR 5/3), medi	Description	moist roots a	nd rootlets	Gravel	Coarse Sand	% Med. Sand	25 Eine Sand	
s					1-		S.W		o staining [Slopewash]	inim uchise to uchise	, moist, roots an	id rodicis,		3		20	40
					-			Siltstone, gi [Chatsworth	rayish brown (10YR 5/2) h Formation]), weathered, hard,	fractured, moist	t, rootlets					
s					3-												
***					4-			locations fo	n = 3.5 ft; refusal on Cha or soil volume. camples S001 at 13:55 a		Sampled at two	o step-out					
					-				all locations with auger c								
					5-												
					6-												
					7-	-											
					8-												
					-	_											
					9-	1											
					10-												

LOG OF BORING OUTFALL008.GPJ BOEING.GDT 12/16/09

	WIV							Boring ID: HZBS0185					
Borehole		(in.): 3					th (ft): 3						_
Northing (ft):	2670	59.77		Ea	asting (f	t): 1796		ıth				_
Orill Start	Date:	10-2	7-2009	•			e: NR	Logged By: A. Goldenberg Reviewed By: B. Mart	asin,	P.G			
Orill Finish	n Date:	10-2	7-2009	•	Fir	nish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st	H ₂ O (f	t):		N/A	Da	ate / Tin	ne: N/A	Drill Rig Type/Method: Hand Auger					
Depth H ₂ C) After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A	Driller's Name: A. Goldenberg					
Comment	s: Bar	e soil	at sur	face				Well Comp. Date: N/A Completion	Time	e: N	N/A		
Samplers	Gra	b sam	ple co	ollect	ted in (6-inch	stainless	steel sleeve Soil Backfill Date: 10-27-2009 Backfill Tim	e:	١	NR		
										Est.	% o	f Sc	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
s					1-		SM	Silty Sand, dark yellowish brown (10YR 4/4), medium dense, moist, roots and rootlets, no odor, no staining [Fill/Slopewash]	10	5	25	20	1
×					2	-	SM	Silty Sand, brown (10YR 4/3) to dark yellowish brown (10YR 4/4), dense, moist, no odor, no staining [Colluvium]		10	25	20	1
S					-	50101016		Sandstone, very pale brown (10YR 7/4), hard [Chatsworth Formation] Total Depth = 3.5 ft; refusal on Chatsworth Formation. Sampled at one step-out					+
					4-			location for soil volume. Collected samples S001 at 12:35 and S002 at 13:00.					
					-			Backfilled both locations with auger cuttings.					
					5-	_							
					6-	_							
					7-	-							
					8-	_							
					9	-							
					-	-							

	MW		,			tal Dec	th (#\: ^		Boring ID: HZ		all 000 A						
Borehole							th (ft): 3			RA Sampling - Outf					_		_
Northing (767.71				t): 1795		Job Number: 1891			: Happy Valley Sou					
Drill Start			1-2009				e: NR		Logged By: A. G	_		viewed By: V. Vath		in, P	.G.		
Drill Finis							ne: NR		Drilling Contractor:			ld Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A			od: Grab (hand sam	pling)						_
Depth H ₂ 0							ne: N/A		Driller's Name: No								
								d gravel at surf	face	Well Comp. Dat		Completion	Time		N/A		
	: Gra	b sam	ple co	ollect	ted in (6-inch s	stainless	steel sleeve		Soil Backfill Dat	e: N/A	Backfill Tim			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ✓ Classification	Silty Sand, d	dark yellowish brow odor, no staining [Fi	Description 1 (10YR 4/4), medium	n dense, dr	y, roots and	o Gravel	10 Coarse Sand	% of Med. Sand	So Pine Sand	
s					1- - 2-				i Log ISRA-HVS-1 f								
					3-				ation Depth = 3.0 ft.	001-RWQCB, and D0	001 at 09:2	5 from excavation					
					4-			sidewall.	backfilled 12-01-200								
					-												
					5-												
					6-	-											
					7-	_											
					8-	-											
					-												
					9-	-											
					10-												

Porobal	o Dio~	(in): 5	<u> </u>			tal Dar	th (ft): 4	1.0	Boring ID: HZE Project: SSFL ISRA		NOS Arco						_
	e Diam.									A Sampling - Outfall		Jammy Vallay Ca	.41.	111/0	_		_
Northing			764.38				t): 1795	5900.47	Job Number: 189161			lappy Valley So					_
	rt Date:		1-200				e: NR		Logged By: A. Gold	_		ved By: V. Vath		ın, P	.G.		
	ish Date						ne: NR		Drilling Contractor: E		_	strumentation:	N/A				_
	st H ₂ O (N/A			ne: N/A		Drill Rig Type/Method:		ng) / Hand	Auger					
	I₂O Afte						ne: N/A		Driller's Name: Not a	*I*							
	nts: So									Well Comp. Date:		Completion	Time		I/A		
	rs: Gr	ab san	ple co	ollect	ted in (6-inch	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			I/A		
Retained Sample Time		Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Silty Sand v subangular	with Gravel, dark yellow gravel, no odor, no sta	Description rish brown (10YR 4/4) ining [Fill]	, dense, dr	y to moist,	Cavel Gravel	Coarse Sand	% of Med. Sand 25	SO Fine Sand	
					2 3			Sandstone,	weathered [Chatswortl	n Formation]							
× s	3								less weathered, hard								
					4			Total Depth									+
					-	-		Collected sa augered ab at 13:10.	amples S001 and S001 out 1 ft below base of 3	3-ft-deep excavation a	nd collecte	d sample S002					
					5	_		Hand auger 12-01-2009	r borehole backfilled wi I.	th auger cuttings. Ex	cavation ba	ckfilled					
					6-												
					7-	-											
					8-	_											
					9-												
					-	_											

	MW								Boring ID: HZE								_
Borehole	Diam.	(in.): 2	<u> </u>		То	tal Dep	th (ft): 1	.3 F	Project: SSFL ISR	A Sampling - Outfall 00	8 Area						_
Northing	(ft):		786.75				t): 1795	5864.61	Job Number: 189161	4	Site: Happy \	/alley Sout	th - I	HVS.	-1		
Orill Star	t Date:	09-2	1-2009	9			e: NR	L	Logged By: A. Gol	denberg	Reviewed By:	V. Vatha	nasi	in, P	G.		
Orill Fini	sh Date	: 09-2	1-2009	9	Fir	nish Tin	ne: NR		Drilling Contractor: E	nvirosolve	Field Instrume	ntation: N	I/A				_
Depth 1s	st H ₂ O (ft):	1	N/A	Da	te / Tin	ne: N/A	1	Drill Rig Type/Method	: Grab (hand sampling)						_
Depth H	O After	Drillin	g (ft): I	N/A	Da	te / Tin	ne: N/A	1	Driller's Name: Not	applicable							
Commer	nts: So i	l cove	red wi	ith cu	ut and	mowed	l brush a	at surface		Well Comp. Date: N/	A C	ompletion 1	Time	e: N	I/A		
Sampler	s: Gra	ab sam	iple co	ollect	ted in 6	3-inch s	stainless	steel sleeve		Soil Backfill Date: N/	A B	ackfill Time):	N	I/A		
iterval VDe	2	9.	om)	Level	(feet)	Graphic Log	USCS Soil Classification			Description				Coarse Sand			
Sample II Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graph	USCS Classi	Fill [See Trer	nch Log ISRA-HVS-1	for lithology]			Gravel	Coars	Med. Sand	Fine Sand	
***					1-		SM		ellowish brown (10YR	t 5/4), dense, dry, roots a	and rootlets, no	odor,		10	25	20	, .
s								Total Depth =									+
					_			Collected soi	il sample S001 along	with MS/MSD at 12:55 f	rom excavation	floor					
											TOTT CACAVATION	11001.					
					2-			Excavation b	packfilled 12-01-2009.								
					-												
					•												
					3-												
					-												
					A												
					4-												
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					5												
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					9-												
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			1	(I													-)

<u> </u>	MW				1_		11 /60		Boring ID: HZ I								
Borehole							th (ft): 4			RA Sampling - C							
Northing			69.46				t): 1795		Job Number: 1891			e: Happy Valley So					
Orill Star			1-2009				e: NR		Logged By: A. Go	_		viewed By: V. Vath		in, P	.G.		
Orill Finis	sh Date:	09-2	1-2009)	Fir	nish Tin	ne: NR		Drilling Contractor:			ld Instrumentation:	N/A				
Depth 1s		•		N/A			ne: N/A		Drill Rig Type/Metho		sampling) / Ha	and Auger					_
Depth H ₂							ne: N/A		Driller's Name: No	-1							
Commer	nts: Soi	cove	red wit	th cu	ıt and	mowed	l brush a	at surface		Well Comp.	Date: N/A	Completion	Time	e: I	N/A		_
Samplers	s: Gra	b sam	ple co	llect	ed in 6	3-inch s	tainless	steel sleeve		Soil Backfill I	Date: N/A	Backfill Tim			N/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
s S	80	8 U	<u>a</u>	<u>N</u>	2— 3— 4—	9	SM	Sandstone, v		taining [Fill]			5	10		20	_
					5— 6— 7— 8— 9—				mple S001 at 12:45 ase of 3-ft-deep exca								

	MW				T_			Boring ID: HZET0104					_
Borehole							th (ft): 2	·					_
Northing			778.29				t): 179 5						_
Orill Start			9-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V.			.G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation	n: N/A				_
Depth 1s		_		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂							ne: N/A	Driller's Name: Not applicable					_
Commen			_						tion Tim		N/A		_
	: Gra	b sam	ple co	ollect	ted in 6	6-inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill	Time:		N/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description Fill [See Trench Log ISRA-HVS-1 for lithology]	Gravel	Sand	Med. Sand	Fine Sand S	
s					1-		SM	Silty Sand, dark yellowish brown (10YR 4/6), medium dense to dense, dry to moist, roots, no odor, no staining [Colluvium]		5	20	35	
					2-	SWARE		Total Excavation Depth = 2.0 ft.					t
								Collected soil sample S001 at 13:20 from excavation sidewall.					
					-			Collected soil sample 500 Fat 15.20 from excavation sidewall.					
								Excavation backfilled 12-01-2009.					
					3-								
					3								
					-	-							
					4-								
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					-	1							
					5-								
					_	1							
					6-	1							
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					7-	†							
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					8-	1							
					-								
					9-								
					3								
					-								1
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	MW Diam		,		T_	4-15	41- /ft\ -		Boring ID: HZE		000 *						—
Borehole							th (ft): 2			Sampling - Outfall					_		_
Northing (782.61				t): 179 5		Job Number: 1891614			e: Happy Valley S					
Orill Start			9-2009				: NR	II.	Logged By: A. Gold	-		viewed By: V. Va		in, P	.G.		
Orill Finis							ne: NR		Drilling Contractor: En			eld Instrumentation	N/A				
Depth 1st		•		N/A			ne: N/A		Drill Rig Type/Method:		ing)						_
Depth H ₂ 0							ne: N/A]	Driller's Name: Not a								
Comment										Well Comp. Date:	N/A	Completi	on Time		N/A		
	: Gra	b sam	ple co	ollect	ted in (6-inch s	tainless	steel sleeve		Soil Backfill Date:	N/A	Backfill T			N/A		
rerval /pe				<u></u>	£	go	Lion								% o		il
Sample interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Fill [See Trer	nch Log ISRA-HVS-1 f	Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	Silf/Clay
s					1-		SM	Silty Sand, da	ark yellowish brown (10 no odor, no staining [C	OYR 4/6), medium d	ense to	dense, dry to		5	20	35	4
					2-	SMSS		Total Excava	tion Depth = 2.0 ft.								+
					_			Collected soi	il sample S001 at 13:3	from excavation si	dewall.						
								Excavation b	ackfilled 12-01-2009.								
					3-	1											
					-												
					4	1											
					-	-											
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	MW				1_		11 /60	Boring ID: HZET0200					_
Borehole							th (ft): 4						_
Northing			181.82				t): 1796						
Drill Start			0-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vat		in, P	.G.		
Drill Finis			0-2009	9	Fir	nish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				_
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂							ne: N/A	Driller's Name: Not applicable					
								at surface Well Comp. Date: N/A Completion	n Time		N/A		_
Samplers	: Gra	b san	ple co	ollect	ted in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Ti			N/A		_
Sample Interval Retained Sample Type	ıry	. .	Ē.	-evel	feet)	c Log	Soil ication	Description			% o		
Sample Interv Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	•	Gravel	Coarse Sand	Med. Sand	Fine Sand	
					1— - 2—			[See Trench Log ISRA-HVS-2A for lithology]					
S					3-	0.000000000000000000000000000000000000	SM	Silty Sand, dark yellowish brown (10YR 4/6), dense, moist, fine subrounded gravel up to 1/2 inch diameter, roots and rootlets, no odor, no staining [Colluvium] Total Depth = 4.0 ft.	5	10	25	20	
					5—			Collected soil sample S001 at 09:40 from excavation floor. Excavation backfilled 12-02-2009.					
					6-								
					7-								
					8-								
					9-								
					10-								

200-1-1	D:	(in): 2	,		1-	4-1-0	41- /ft\ -	Boring ID: HZET0201						—
Borehole							th (ft): 4	Project: SSFL ISRA Sampling - Outfall 008 Area						—
Northing			171.37				t): 1796		appy Valley Sou					
Orill Start			0-2009			art Time			ed By: V. Vatha		in, P	.G.		
Orill Finis							ne: NR		trumentation: N	N/A				
Depth 1st		-		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)						_
Depth H ₂					•		ne: N/A	Driller's Name: Not applicable						
Commen								t surface Well Comp. Date: N/A	Completion	Time		N/A		
Samplers	: Gra	b sam	ple co	llect	ed in 6	inch s	stainless	eel sleeve Soil Backfill Date: N/A	Backfill Time			N/A		
Sample Interval Retained Sample Type							_				_	% o	f So	il
Sample Interv Retained Sample Type				<u></u>	£	og	USCS Soil Classification				Coarse Sand	_	_	
Sample In Retained Sample Ty	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	Soi	Description			Š	Med. Sand	Fine Sand	}
بة بع م الع	6	ış≽	ᅙ	<u>-</u>	ŧ	phi	SSi			Gravel	I S		S	V.C. 10/41:0
san Ret San	%%	્રિકુ	õ	at	Эер	<u>j</u> ra	Slas			3ra	Š	Jec	<u>≅</u> .	7
,, E 0,	ш С	шО	-	-	ნ-			Con Trough Low ICDA LIVE OA for lithology I		\vdash	_	_	-	+
								See Trench Log ISRA-HVS-2A for lithology]						
					7									
					1-									
					2-									
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					3-									
					4									
						建超	SM	Silty Sand, dark yellowish brown (10YR 4/6), dense, moist, fine subr	ounded	5	10	25	20	4
S					4			gravel up to 1/2 inch diameter, roots and rootlets, no odor, no stainir	g [Colluvium]					
						ARHATA		Total Depth = 4.3 ft.						+
					+			·						
								Collected soil sample S001 at 10:00 from excavation floor.						
					5-			Excavation backfilled 12-02-2009.						
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Danii '	D:	(in): 2				4-1-0	41- (ft) -	Boring ID: HZET0202					—
Borehole							th (ft): 4						—
Northing (156.44				t): 1796						
Orill Start			0-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V.		sin, F	P.G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation	on: N/A				
Depth 1st		_		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ 0							ne: N/A	Driller's Name: Not applicable					
Comment	ts: Soi	I cove	red wi	th m	owed (grass a	nd brus	at surface Well Comp. Date: N/A Comp	etion Tim	e:	N/A		
Samplers	: Gra	b sam	ple co	llect	ed in 6	inch s	stainless	teel sleeve Soil Backfill Date: N/A Backfi	Time:		N/A		
Sample Interval Retained Sample Type							_				% o	f So	il_
Sample Interv Retained Sample Type				<u>_</u>	£	og	USCS Soil Classification			Coarse Sand	_		
드호드	Recovery (%)	<u>.</u>	PID (ppm)	Water Level	Depth (feet)	Graphic Log	Soi	Description		တိ	Med. Sand	Fine Sand	>
Sample In Retained Sample Ty	8	Blow Count/6"	g g	<u>-</u>	ţ	ohi	Sif	·	Gravel	_ s	<u>s</u>	Š	Silt/Clay
ar er	9 (S	<u>6</u> 0	₽	/at	eb	<u>la</u>	SC		La l	o	<u>6</u>	ine	1
S E S	R &	m O	Δ.	>	_0_	9	50		9	0	2	ш	_ U
					•			[See Trench Log ISRA-HVS-2A for lithology]					
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					1-								
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					3-								
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					4	9496	CM	City Cond days collection brown (10VD 1/0) dones maint fine subrounded		10	25	20	
∭ s							SM	Silty Sand, dark yellowish brown (10YR 4/6), dense, moist, fine subrounded gravel up to 1/2 inch diameter, organic debris (roots), no odor, no staining	5	10	25	20	4
								[Colluvium]					
					_			Total Depth = 4.5 ft.					T
								O-11t-d111					
					5-			Collected soil sample S001 at 10:45 from excavation floor.					
								Excavation backfilled 12-02-2009.					
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	MW Diam.				T-	tal Dan	oth (ft): 5	Boring ID: HZET0203 Project: SSFL ISRA Sampling - Outfall 008 A	roa					
		`									11/0	24		
Northing			38.64				ft): 1796		ite: Happy Valley Sout					
Orill Start			0-2009				e: NR		Reviewed By: V. Vathar		n, P	.G.		
Orill Finis							ne: NR		ield Instrumentation: N	/A				
Depth 1s		_		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)						
Depth H ₂					•		ne: N/A	Driller's Name: Not applicable	1					
								at surface Well Comp. Date: N/A	Completion T			N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in 6	3-inch	stainless	teel sleeve Soil Backfill Date: N/A	Backfill Time			N/A		_
Sample Interval Retained Sample Type							<u>_</u>		_			% o	r So	Ш
Sample Inter Retained Sample Type				<u>ē</u>	et)	Graphic Log	USCS Soil Classification				Sand	٦	_	
sample II Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	<u> 2</u>	So	Description		_	S	Med. Sand	Fine Sand	
ᅙᇕᄝ	8	v Int	d)	ē	ţ	hd	SS SSİ			Gravel	Coarse	6	S	
Set San	% %	380	ĕ	at	Эер	3ra	JS(3ra	Š	Jec	غ ا	
,, E 0,	ш С	В		-	_0_		7	[Coo Trough Low ICDA LIV/C OA for lithology]		$\overline{}$	_	_	-	+
								[See Trench Log ISRA-HVS-2A for lithology]						
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s					-		SM	Silty Sand, dark yellowish brown (10YR 4/6), dense to very d subrounded gravel up to 1/2 inch diameter, no odor, no stain	ense, moist, fine	5	10	30	25	
× s								Subrounded graver up to 1/2 inter diameter, 110 odor, 110 Stain	ng [Conuvium]					
~					-	1.51-153415		Total Depth = 5.5 ft.						
					6			Collected soil sample S001 at 11:15 from excavation floor.						
					-			Excavation backfilled 12-02-2009.						
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	ИW				T_	4-1.5	41- 750 -	Boring ID: HZET0204					—
Borehole							th (ft): 4	Project: SSFL ISRA Sampling - Outfall 008 Area					—
Northing (18.84				t): 1796						
Orill Start			0-2009			art Time		Logged By: A. Goldenberg Reviewed By: V. Va		in, P	.G.		
Orill Finish							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st		_		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0					•		ne: N/A	Driller's Name: Not applicable					
Comment	s: Soil	cove	red wi	th m	owed g	grass a	nd brus	at surface Well Comp. Date: N/A Completic	n Time	e: I	N/A		
Samplers	Gra	b sam	ple co	llect	ed in 6	inch s	tainless	eel sleeve Soil Backfill Date: N/A Backfill T			N/A		
Sample Interval Retained Sample Type							_				% o	f So	il
Sample Interv Retained Sample Type				<u></u>	ੜ	og	USCS Soil Classification			Coarse Sand	_		
	Recovery (%)		PID (ppm)	Water Level	Depth (feet)	Graphic Log	Soi	Description		လိ	Med. Sand	Fine Sand	>
를 를 릴	8	nt	dd)	<u>-</u>	ŧ.	ohi	Sif	·	∫ e	l Se	<u>s</u>	Š	Silt/Clay
Sample In Retained Sample T	Š.	Blow Count/6"	₽	/at	eb	la l	SC		Gravel	oa	<u> </u>	ine	*
n R n	೭೮	CB	Ь	>	_0_	g	20		၂ၑ	ပ	2	ш	U.
								[See Trench Log ISRA-HVS-2A for lithology]					
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						9999	SM	Silty Sand, dark yellowish brown (10YR 4/6), dense to very dense, moist, fine	5	15	25	20	3
∭ s					-		· · · ·	subrounded gravel up to 1/2 inch diameter, no odor, no staining [Colluvium]					ľ
					5-			Total Depth = 4.8 ft.					
								Collected soil sample S001 at 11:20 from excavation floor.					
					+			Excavation backfilled 12-02-2009.					
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D 1	D:-	H			- I ₋	4-1 D	41- 760 -	Boring ID: HZET0205					
Borehole							th (ft): 5	Project: SSFL ISRA Sampling - Outfall 008 Area					_
Northing (98.02				t): 1796						
Drill Start			0-2009		- 1	art Time		Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Drill Finish	h Date:	: 09-1	0-2009	•			ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st	H ₂ O (f	ft):		N/A	Da	ite / Tin	ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H₂0	O After	Drillin	g (ft): I	N/A	Da	ite / Tin	ne: N/A	Driller's Name: Not applicable					
Comment	s: Soi	I cove	red wi	th m	owed (grass a	and brus	urface Well Comp. Date: N/A Completion	Time	e: I	N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in 6	-inch	stainless	sleeve Soil Backfill Date: N/A Backfill Tim	e:		N/A		
<u>a</u>							_			Est.	% o	f So	il
Sample Interval Retained Sample Type				ᇹ	t	g	USCS Soil Classification			pu			
ا و ا	Recovery (%)	÷.	Ē	Water Level	Depth (feet)	Graphic Log	Soil	Description		Coarse Sand	Med. Sand	Fine Sand	L
Sample In Retained Sample T	8	Blow Count/6"	PID (ppm)	<u> </u>	ų.	Ř	S S sif		ē	Se	ŝ	S	0,41.0
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					·			e Trench Log ISRA-HVS-2A for lithology]					
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					3-								
					4								
							SM	y Sand, dark yellowish brown (10YR 4/6), dense to very dense, moist, fine	5	15	25	20	3
⊗ s								rounded gravel up to 1/2 inch diameter, no odor, no staining [Colluvium]					
					5-								1
								al Depth = 5.0 ft.					
								lected soil sample S001 at 12:45 from excavation floor.					
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								cavation backfilled 12-02-2009.					
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	MW				1_	4-15	41- 760 -		Boring ID: HZE		.00.4						
Borehole							oth (ft): 3		•	A Sampling - Outfall 0							_
Northing (94.50				t): 1796		Job Number: 189161			ppy Valley Sou					
Drill Start			0-2009				e: NR		Logged By: A. Gold	_	1	d By: V. Vath		in, P	G.		
Drill Finisl							ne: NR		Drilling Contractor: E			trumentation:	N/A				
Depth 1st		-		N/A			ne: N/A		Drill Rig Type/Method:		g)						_
Depth H ₂ 0							ne: N/A		Driller's Name: Not a								
Comment										Well Comp. Date: N		Completion	Time		I/A		
	Gra	b sam	ple co	ollec	ted in 6	6-inch	stainless	s steel sleeve		Soil Backfill Date: N	N/A	Backfill Tim			I/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil	Silty Sand,	dark yellowish brown (1	Description	nse, dry, org	ganic debris	Gravel	coarse Sand	% Med. Sand	S Fine Sand	
s s					1 2 3				ets, and grass fragmen		g [Fill]						
					4-			Collected so	ation Depth = 3.8 ft. bil sample S001 at 13:0 backfilled 12-02-2009.	00 from excavation side	ewall.						
					5-	-											
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					7-												
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					9-	-											
					10-												

	MW						11 /60	Boring ID: HZET0207						
Borehole							th (ft): 4							_
Northing (080.04				t): 1796							
Orill Start			0-2009			art Time		Logged By: A. Goldenberg Reviewed By			n, P	G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrume	entation: N	/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)						_
Depth H ₂ 0							ne: N/A	Driller's Name: Not applicable						
Comment	ts: Soi	l cove	red wi	ith m	owed	grass a	t surfac	Well Comp. Date: N/A	completion T	ime	: N	I/A		
Samplers	: Gra	b sam	ple co	ollect	ted in 6	3-inch	stainless	teel sleeve Soil Backfill Date: N/A B	ackfill Time	:	N	I/A		
ا م <u>ا</u>							_			E		% of	So	il
Sample Interval Retained Sample Type			_	<u>ē</u>	£	Graphic Log	USCS Soil Classification				Coarse Sand	-	_	
Sample In Retained Sample Ty	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	C	Soi	Description			Š	Med. Sand	Fine Sand	}
혈호회	ŏ	nt,	ğ	<u>-</u>	ŧ	phi	Sif	·		Gravel	rse	<u>.</u>	Š	<u>ر</u> -
ar etc	Š.	<u>6</u> 5	₽	at l	eb	l a	SC			ā	oa	<u> </u>	ju	Silt/Clay
n E O	R &	m O	<u> </u>	>	_0_	9				9	0	2	ш	<u>σ</u>
								[See Trench Log ISRA-HVS-2A for lithology]						
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					3-									
					-		SM	Silty Sand, dark yellowish brown (10YR 4/6), dense to very dense, moist,	fine	5	10	30	25	3
⊗ s								subrounded gravel up to 1/2 inch diameter, roots and rootlets, no odor,						
					4-			no staining [Colluvium]						+
								Total Depth = 4.0 ft.						
								Collected soil sample S001 at 13:10 from excavation floor.						
								Excavation backfilled 12-02-2009.						
								Excavation backlined 12-02-2009.						
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	MW				1_			Boring ID: HZET0208						
Borehole							th (ft): 3	1						_
Northing ()58.95				t): 1796							_
Drill Start			0-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V.			, P.C	3.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentat	on: N /	١				_
Depth 1st		-		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)						_
Depth H ₂ 0							ne: N/A	Driller's Name: Not applicable						_
Comment									etion Tir	ne:	N/			_
	: Gra	b sam	iple co	ollect	ed in 6	inch s	stainless	teel sleeve Soil Backfill Date: N/A Backf	I Time:		N/		_	_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	-		<u> </u>	Med. Sand of	Fine Sand	il
S R S	డ్ల	<u> </u>		Š	ے	อั	รีธั	[See Trench Log ISRA-HVS-2A for lithology]	- 0	5 0	ပ	ž	Ē	
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s					3- 4- 5-	200000000	SM	Silty Sand, dark yellowish brown (10YR 4/6), dense to very dense, moist, no o no staining [Colluvium] Total Depth = 3.8 ft. Collected soil sample S001 at 13:20 from excavation floor. Excavation backfilled 12-02-2009.	lor,	1	10	30	25	;
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	MW		,			tal D =	th (#\): 4	Boring ID: HZET0209					—
Borehole							th (ft): 4	·	41-				_
Northing (040.22				t): 1796						_
Orill Start			0-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Va		in, P	'.G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation	N/A				_
Depth 1st		-		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0					•		ne: N/A	Driller's Name: Not applicable					_
								at surface Well Comp. Date: N/A Completi			N/A		_
Samplers	: Gra	b sam	iple co	ollect	ted in 6	S-inch s	stainless	teel sleeve Soil Backfill Date: N/A Backfill T			N/A		-
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description [See Trench Log ISRA-HVS-2A for lithology]	Gravel	Coarse Sand	Med. Sand	Fine Sand	
**					1— 2— 3—								
s					4 - 5		SM	Silty Sand, dark yellowish brown (10YR 4/6), dense to very dense, moist, fine subrounded gravel up to 1/2 inch diameter, no odor, no staining [Colluvium] Total Depth = 4.3 ft. Collected soil samples S001 and S001SP at 13:30 from excavation floor. Excavation backfilled 12-02-2009.	5	10	30	25	
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					10-								

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Borehole							th (ft): 5	Project: SSFL ISRA Sampling - Outfall 008 Area					
Northing			19.32				t): 1796						
Drill Start			0-2009			art Time		Logged By: A. Goldenberg Reviewed By: V.			P.G.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentat	on: N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ 0							ne: N/A	Driller's Name: Not applicable					
Commen	ts: Soil	cove	red wi	th m	owed g	grass a	nd brus	t surface Well Comp. Date: N/A Comp	etion Tim	ne:	N/A		
Samplers	: Gra	b sam	ple co	llect	ed in 6	-inch	stainless	eel sleeve Soil Backfill Date: N/A Backf	Il Time:		N/A		
Sample Interval Retained Sample Type							_				. % (of So	oil
Sample Interv Retained Sample Type				<u></u>	ਦੂ	og	USCS Soil Classification			Coarse Sand			
드루드	Recovery (%)		PID (ppm)	Water Level	Depth (feet)	Graphic Log	Soi	Description		ű	Med. Sand	Fine Sand	; ا
Sample II Retained Sample T	8	Blow Count/6"	dd)	<u>-</u>	Ę.	ohi	Sif	•	Gravel	ַ עַ	ျှ	Š	Cil+/Clay
ar teta	% Sec	(Son)	₽	/at	eb	<u>a</u>	SC		Į	3 6	<u> </u>]ie	1
S E S	R 5	В О	Ь	>	-0-	9	50) (2	Щ.	٥
								[See Trench Log ISRA-HVS-2A for lithology]					
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s							SM	Silty Sand, dark brown (10YR 3/3), medium dense, moist, subrounded gravel, roots and rootlets, no odor, no staining [Colluvium]	5	10	20	35	5 3
× s								oots and rootiets, no odor, no staining [Condvidin]					
					5			Total Depth = 5.0 ft.	-			+	
								Collected soil sample S001 at 13:40 from excavation floor.					
					1			Excavation backfilled 12-02-2009.					
								EXCAVALION DACKIIIIEU 12-02-2009.					
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Borehole Diam.	(in.): 2			Tot	al Dep	th (ft): 4	.5	Project: SSFL ISRA	A Sampling - Outfall	008 Area						
Northing (ft):	2670	02.27		Eas	sting (f	:): 1796	282.31	Job Number: 189161	4	Site: H	appy Valley Sοι	ıth -	HVS	-2A		
Orill Start Date:	09-10	0-2009		Sta	rt Time	: NR		Logged By: A. Gold	denberg	Review	ed By: V. Vatha	anasi	in, P	.G.		
Drill Finish Date	: 09-10	0-2009		Fin	ish Tim	ne: NR		Drilling Contractor: E	nvirosolve	Field In:	strumentation: I	N/A				
Depth 1st H ₂ O (ft):	N	I/A	Dat	te / Tim	ne: N/A		Drill Rig Type/Method:	Grab (hand sampl	ing)						
Depth H₂O After	r Drilling	g (ft): N	I/A	Dat	te / Tim	ne: N/A		Driller's Name: Not a	applicable							
Comments: So	il cover	ed wit	h mo	wed g	ırass a	nd brus	h at surface		Well Comp. Date:	N/A	Completion	Time	e: 1	N/A		
Samplers: Gra	ab sam	ple co	llecte	d in 6	-inch s	tainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Time	e:	١	N/A		
												I	Est.	% of	f So	oil
Retained Sample Type Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	ISee Trenc	h Log ISRA-HVS-2A fo	Description			Gravel	Sand	Med. Sand	Fine Sand	
				1- 2- 3-												
s				5-		SM	no odor, no Total Depth Collected s	dark yellowish brown (* o staining [Colluvium] n = 4.5 ft. oil sample S001 at 13:5 backfilled 12-02-2009.	50 from excavation fl		debris (roots),		10	25	30	
				6- 7- 8-												

Borehole	Diam	(in). a			т.	tal Dan	th (ft): 3		Boring ID: HZET Project: SSFL ISRA	Sampling - Outfall 00	g Aroa					
			92.65						ob Number: 1891614			-41-		24		_
Northing (t): 1796				Site: Happy Valley Sou					
Orill Start			0-2009				: NR		ogged By: A. Golde	-	Reviewed By: V. Vath		ın, P.	.G.		
Orill Finis							ne: NR		Orilling Contractor: En		Field Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A		Orill Rig Type/Method:	_)					
Depth H ₂ 0							ne: N/A	D	Oriller's Name: Not ap							
Comment										Well Comp. Date: N/	,			I/A		
	: Gra	b sam	ple co	llect	ed in 6	5-inch s	stainless	steel sleeve		Soil Backfill Date: N/	A Backfill Tim			1/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		D	escription		Gravel	Coarse Sand	Med. Sand	Fine Sand 6	11 (17)
Sar Sar	% % %	윤징	吕	Ma	Det	Gra	US					Gra	ပ္ပိ	Me	Ë	3
			_	-	- 0-			[See Trench I	Log ISRA-HVS-2A for I	ithology]		Ť	Ť	_	_	Ť
⊗ s					1- - 2-		SM	Silty Sand, da no staining [C	ark brown (10YR 3/3), (Colluvium]	dense, moist, organic o	debris (roots), no odor,		5	30	25	44
					3			Collected soil	tion Depth = 3.3 ft. sample S001 at 14:00 ackfilled 12-02-2009.	from excavation sides	wall.					
					9- 10-											

	MW							Boring ID: HZET0213					
Borehole							th (ft): 4						—
Northing			005.56				t): 1796						
Orill Start	Date:	09-1	4-2009	9			e: NR	Logged By: A. Goldenberg Reviewed By: V. V.	thanas	in, F	.G.		
Orill Finis	h Date:	: 09-1	4-2009	9			ne: NR	Drilling Contractor: Envirosolve Field Instrumentation	: N/A				
Depth 1st		-		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ 0							ne: N/A	Driller's Name: Not applicable					
Comment	ts: Soi	I cove	red wi	th gr	rass an	nd brus	h at surl	ce Well Comp. Date: N/A Complet	on Tim	e:	N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill	ime:		N/A		
Sample Interval Retained Sample Type							_			Est.	% o	f So	<u>il</u>
Sample Interv Retained Sample Type				 	t	g	USCS Soil Classification			밀	l_		
اً و ا	Recovery (%)	÷.	PID (ppm)	Water Level	Depth (feet)	Graphic Log	Soil	Description		Coarse Sand	Med. Sand	Fine Sand	>
Sample In Retained Sample Ty	96	Blow Count/6"	dd)	<u></u>	ᇁ	, ř	SS		ভূ	Se	ů.	S	1 2
am eta am	Š ©	<u> </u>	₽	at l	ebi	la la	SC		Gravel	oa	eq	ine	Silt/Clay
n ex o	೭೮	က ပ	Δ.	>	_0_	g)		ေ	ပ	Σ	ш	U.
					·			[See Trench Log ISRA-HVS-2A for lithology]					
					_								
					1-								
					•								
					-								
					2-								
					-								
					3-								
					-								
					4								
					•		SM	Silty Sand, dark brown (10YR 3/3) to strong brown (7.5YR 4/6), organic debris		5	25	35	3
s								(rootlets), pore space possibly due to bioturbation, no odor, no staining [Colluvium]					
					-	RANGER		Total Depth = 4.5 ft.					\vdash
								·					
					5			Collected soil sample S001 at 12:39 from excavation floor.					
					3			Excavation backfilled 12-02-2009.					
								EXCUTATION DUCKNING 12 OF 2000.					
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					0								
					9-	1							
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			1							1			1
	- 1												1

	MW								Boring ID: H										_
Borehole	Diam.	(in.): 2			Tot	tal Dep	oth (ft): 4	l.5	Project: SSFL	ISRA Sa	ampling - Outfall	008 Are	a						_
Northing	(ft):	2670	23.92		Ea	sting (f	ft): 1796	6259.06	Job Number: 189	91614		Site	e: Happ	y Valley So	uth -	HVS	-2A		_
Orill Start	Date:	09-1	4-2009	9		art Tim				Goldeni	_	Rev	viewed E	By: V. Vath	anas	in, P	.G.		_
Orill Finis	h Date	: 09-1	4-2009	9	Fin	nish Tir	ne: NR		Drilling Contractor	r: Envir	osolve	Fiel	ld Instru	mentation:	N/A				_
Depth 1st	t H ₂ O (1	ft):	1	N/A	Da	te / Tir	ne: N/A		Drill Rig Type/Met	thod: G	rab (hand sampl	ling)							
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	te / Tir	ne: N/A		Driller's Name:	Not appl	licable								
Commen	ts: Soi	l cove	red wi	th m	owed g	grass a	and brus	h at surface		W	Vell Comp. Date:	N/A		Completion	Time	e: N	N/A		
Samplers	: Gra	ıb sam	ple co	ollect	ed in 6	inch s	stainless	steel sleeve		s	oil Backfill Date:	N/A		Backfill Tim	e:	١	N/A		
																Est.	% of	Soi	il
Sample interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	[See Trenc	ch Log ISRA-HVS-2		scription				Gravel	Sand	Med. Sand	Fine Sand	
					1 2 3														
S					4-			Sandstone, cementatio	, light yellowish bro n, organic debris, r	own (10Y no odor,	R 6/4), highly we no staining [Cha	athered, tsworth F	friable, ormatio	weak n]					_
					5-			Collected s	sample S001 at 12:4		excavation floor.								
					6-														
					7-														
					8-														
					9-														
					10														

	MV	И						Boring ID: HZET0215					
Borehole	Diam	(in.): 2	2		To	tal Dep	th (ft): 4	Project: SSFL ISRA Sampling - Outfall 008 Area					_
Northing			041.97	,			t): 1796		uth - I	HVS	-2A		
Drill Star		09-1	4-200	9			e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath					
Orill Finis	sh Date	e: 09- 1	4-200	9	Fin	nish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:					
Depth 1s	st H ₂ O	(ft):		N/A	Da	te / Tin	ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂	O Afte	r Drillir	ıg (ft): I	N/A	Da	te / Tin	ne: N/A	Driller's Name: Not applicable					
Commen	nts: So	il cove	red w	ith m	owed (grass a	and brus	at surface Well Comp. Date: N/A Completion	Time	e: 1	N/A		
Samplers	s: Gr	ab san	nple co	ollect	ed in 6	inch s	stainless	teel sleeve Soil Backfill Date: N/A Backfill Tim			N/A		_
sample interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	T
					0			[See Trench Log ISRA-HVS-2A for lithology]			_	_	1
					1— 2— 3—	列南京	SM	Silty Sand, dark yellowish brown (10YR 4/6), dense, moist, subrounded sand.		10	20	30	
s					4-		O.III	Silty Sand, dark yellowish brown (10YR 4/6), dense, moist, subrounded sand, weak to moderate cementation, no odor, no staining [Colluvium]					
					_			Total Depth = 4.0 ft. Collected soil sample S001 at 12:55 from excavation floor.					
					5-			Excavation backfilled 12-02-2009.					
					6-								
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					7								
					8-								
					-								
					9-								
					10-						heet		

	MW				- I	4-15	4L /ft\ -	Boring ID: HZET0216					
Borehole							th (ft): 4						_
Northing)64.35				t): 1796						_
Drill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				_
Depth 1st		-		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂							ne: N/A	Driller's Name: Not applicable					
								at surface Well Comp. Date: N/A Completion			N/A		
Samplers	: Gra	b sam	iple co	ollect	ted in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Time			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
Sass	88	<u></u>	귭	Š	ے م	<u>อ</u> ี	รือ		้อ	ರ	ž	這	
					1— 2—			[See Trench Log ISRA-HVS-2A for lithology]					
S					3		SM	Silty Sand, dark yellowish brown (10YR 4/4) to yellowish brown (10YR 5/4), dense, moist, roots and rootlets, no odor, no staining [Colluvium] Total Depth = 4.0 ft. Collected soil sample S001 at 13:07 from excavation floor.		10	20	35	
					5 —			Excavation backfilled 12-02-2009.					
					6-								
					7								
					8-								
					9—								
					10-								

	MW				1_	4-15	41- 750	Boring ID: HZET0217					_
Borehole							oth (ft): 4						—
Northing			083.62				t): 1796						_
Orill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				_
Depth 1s				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂					•		ne: N/A	Driller's Name: Not applicable					
								at surface Well Comp. Date: N/A Completion	Time		N/A		
Samplers	: Gra	ıb sam	ple co	ollect	ted in 6	S-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tir			N/A		_
Sample Interval Retained Sample Type							_			_	% o	So	۱iد
Sample Interv Retained Sample Type				ē	et)	Graphic Log	USCS Soil Classification			Coarse Sand	0	_	
Sample Ir Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	<u>.</u>	Ęć So	Description	1_	S	Med. Sand	Fine Sand	
ra Parid Parid	8	≥¥	ತಿ	후	λţh	d	CS ssi		Gravel	ars	6	တ	
Sar Sar	88 8	읊	문	8	Del	Gr	US		9	Ö	Me	뜶	
	-			H	_0-	_		[See Trench Log ISRA-HVS-2A for lithology]	Ť	Ť		⊢	$^{+}$
								[Coo Tronon Log Terret Tree Extra minology]					
					_								
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					1-								
					-								
					2-								
					_								
					-								
					3-								
					-								
							SM	Silty Sand, yellowish brown (10YR 5/4), dense, moist, subrounded sand, roots		5	20	35	,
s								and rootlets, no odor, no staining [Colluvium]					
X					4-	racifelté		Total Depth = 4.0 ft.		\vdash			+
								·					
					_			Collected soil sample S001 at 13:28 from excavation floor.					
								Excavation backfilled 12-02-2009.					
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	MW				1_	4-15	41- 750	Boring ID: HZET0218					_
Borehole							oth (ft): 4						—
Northing			102.57				t): 1796						_
Orill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				_
Depth 1s				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂					•		ne: N/A	Driller's Name: Not applicable					
								at surface Well Comp. Date: N/A Completion	Time		N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in 6	S-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tin			N/A		_
Sample Interval Retained Sample Type							_			_	% of	So	il
Sample Interv Retained Sample Type				<u>ē</u>	et)	Graphic Log	USCS Soil Classification			Coarse Sand	7	_	
Sample Ir Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	ic I	So	Description	1_	S	Med. Sand	Fine Sand	
ᅙᄚ	8	≱ t	٩	호	th	ph	SSi		Gravel	ı.S	6	S	
Sar Sar	% %	읊	문	Ş	Эек	Gra	Sla		Gra	ဂ္ဂ	Me	٩	
·				\vdash	- 0-	_		[See Trench Log ISRA-HVS-2A for lithology]	+	-	_	_	+
								[Occ Treffelt Log TortA-1170-224 for intriblogy]					
					_								
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					2-								
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					-								
					3-								
					-								
							SM	Silty Sand, dark yellowish brown (10YR 4/4), dense, moist, subrounded sand,		10	25	30	
s								roots and rootlets, no odor, no staining [Colluvium]					
X					4-	racialità		Total Depth = 4.0 ft.					+
								·					
					_			Collected soil sample S001 at 13:35 from excavation floor.					
								Excavation backfilled 12-02-2009.					
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	MW				T.			Boring ID: HZET0219					_
Borehole							th (ft): 4.	Project: SSFL ISRA Sampling - Outfall 008 Area					_
Northing (23.17				t): 1796						—
Orill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. V		in, P	.G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentatio	1: N/A				_
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0							ne: N/A	Driller's Name: Not applicable					_
								t surface Well Comp. Date: N/A Comple	ion Tim		N/A		_
Samplers	: Gra	b sam	ple co	llect	ted in 6	inch s	stainless	eel sleeve Soil Backfill Date: N/A Backfill			N/A		_
nterval Type			(1	vel	et)	Log	ation			_	% o		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
					0-			[See Trench Log ISRA-HVS-2A for lithology]					Ī
					-								
					1-								
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					2								
					=								
					3								
					J								
s					_		SM	Silty Sand, dark yellowish brown (10YR 4/4), dense, moist, subrounded sand, roots and rootlets, no odor, no staining [Colluvium]		10	20	25	4
					4			Total Depth = 4.0 ft. Collected soil samples S001 and S001SP at 13:40 from excavation floor.					
					_			Excavation backfilled 12-02-2009.					
					5-								
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	MW				1_		(1 /*)	Boring ID: HZET0220					_
Borehole							oth (ft): 4						_
Northing			143.89				t): 1796						_
Drill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂					•		ne: N/A	Driller's Name: Not applicable					
								at surface Well Comp. Date: N/A Completion			N/A		
Samplers	: Gra	ıb sam	ple co	ollect	ted in 6	3-inch	stainless	teel sleeve Soil Backfill Date: N/A Backfill Tin			N/A		_
e Va						_	<u>_</u>			_	% o	So	Ш
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
n E O	R &	m O	Δ.	>	0-	9		[See Trench Log ISRA-HVS-2A for lithology]	9	0	2	<u> </u>	+
					1 2								
s					3		SM	Silty Sand, dark yellowish brown (10YR 4/4), dense, moist, no odor, no staining [Colluvium] Total Depth = 4.0 ft. Collected soil sample S001 at 13:45 from excavation floor.		10	20	25	i
					5-			Excavation backfilled 12-02-2009.					
					6-								
					7 —								
					8-								
					9-								
					10-								

_	n, P.0 : N N Est. %	.G. N/A N/A	Fine Sand
Start Time: NR Logged By: A. Goldenberg Reviewed By: V. Vathanasin Finish Date: 09-15-2009 Finish Time: NR Drilling Contractor: Envirosolve Field Instrumentation: N/A h 1st H ₂ O (ft): N/A Date / Time: N/A Drill Rig Type/Method: Grab (hand sampling) h H ₂ O After Drilling (ft): N/A Date / Time: N/A Driller's Name: Not applicable ments: Soil covered with mowed grass and brush at surface olers: Grab sample collected in 6-inch stainless steel sleeve Description Soil Backfill Date: N/A Backfill Time: Description [See Trench Log ISRA-HVS-2A for lithology]	n, P.0 ∴ N. Est. %	.G. N/A N/A % of	-
Finish Date: 09-15-2009 Finish Time: NR Drilling Contractor: Envirosolve Field Instrumentation: N/A In 1st H ₂ O (ft): N/A Date / Time: N/A Date / Time: N/A In 1st H ₂ O (ft): N/A Dat	: N N Est. %	N/A N/A % of	-
h 1st H ₂ O (ft): N/A Date / Time: N/A D	N Est. %	N/A % of	-
H. J. O After Drilling (ft): N/A Date / Time: N/A Driller's Name: Not applicable Ments: Soil covered with mowed grass and brush at surface Well Comp. Date: N/A Completion Time: Soil Backfill Date: N/A Backfill Time: Description Descri	N Est. %	N/A % of	-
ments: Soil covered with mowed grass and brush at surface Soil covered with mowed grass and brush at surface Soil Backfill Date: N/A	N Est. %	N/A % of	-
Soil Backfill Date: N/A Backfill Time: Description D	N Est. %	N/A % of	-
Becovery (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	Est. %	% of	-
Bount/6" Blow Count/6" Blow Count/6" Blow Count/6" Nater Level Classification Graphic Log Graphic Log Gravel Gravel			-
[See Trench Log ISRA-HVS-2A for lithology]	Coarse Sand	Med. Sand	Fine Sand
[See Trench Log ISRA-HVS-2A for lithology]	Coarse Sa	Med. Sanc	Fine Sand
[See Trench Log ISRA-HVS-2A for lithology]	Coarse	Med. S	Fine Sa
[See Trench Log ISRA-HVS-2A for lithology]	Coa	Med	Fine
[See Trench Log ISRA-HVS-2A for lithology]	3	2	LL L
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		'	
2-	1		
	, 1		
CM City Cond ded vellowish brown (40VD 4/4) dance posist rootlets no oder	10	25	25
SM Silty Sand, dark yellowish brown (10YR 4/4), dense, moist, rootlets, no odor, no staining [Colluvium]	10	25	25
Total Depth = 4.3 ft.			
Collected soil sample S001 at 07:50 from excavation floor.			
5— Excavation backfilled 12-02-2009.			
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()	MW	Н						Boring ID: HZET0222					
Borehole	Diam.	(in.): 2	2		Tot	tal Dep	th (ft): 4						_
lorthing			182.23				t): 1796		uth -	HVS	-2A		_
Orill Start							e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath					
rill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:					_
epth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0			g (ft): I	N/A			ne: N/A	Driller's Name: Not applicable					
								at surface Well Comp. Date: N/A Completion	Time	e: 1	N/A		
Samplers	: Gra	ab sam	iple co	ollecte	ed in 6	inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tin	ne:	1	N/A		
tervar rpe				le l	ĵ.	og	l tion		-		% of		il
Sample interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
, _ ,,			_	 	- 0-			[See Trench Log ISRA-HVS-2A for lithology]	+	<u> </u>	_	_	ŀ
					1- 2- 3-								
s					4-		SM	Silty Sand, dark yellowish brown (10YR 4/6), dense to very dense, moist, roots and rootlets, no odor, no staining [Colluvium] Total Depth = 4.0 ft.		10	25	30	
					5-			Collected soil sample S001 at 08:05 from excavation floor. Excavation backfilled 12-02-2009.					
					6-								
					-								
					7 -								
					8-								
					9-								
					10-								

	MW								Boring ID: HZE								_
orehole		(in.): 2	2				th (ft): 1			Sampling - Outfall (_
lorthing	(ft):	2671	187.71		Ea	sting (ft	t): 1796	271.23	Job Number: 189161	4	Site:	Happy Valley Sοι	ıth -	HVS	-2A		_
rill Start	Date:	09-1	5-2009	9	Sta	art Time	: NR		Logged By: A. Gold	enberg	Revi	iewed By: V. Vatha	anasi	in, P	.G.		
rill Finis	h Date	: 09-1	5-2009	9	Fir	nish Tim	ne: NR		Drilling Contractor: E	nvirosolve	Field	d Instrumentation:	N/A				_
epth 1s	t H ₂ O (1	ft):		N/A	Da	te / Tim	ne: N/A		Drill Rig Type/Method:	Grab (hand samplin	ng)						
epth H ₂	O After	Drillin	g (ft): I	N/A	Da	ite / Tim	ne: N/A		Driller's Name: Not a	pplicable							
ommen	ts: Nea	ar Cha	tswort	th Fo	rmatio	n outc	rops, so	il covered with	brush at surface	Well Comp. Date:	N/A	Completion	Time	e: N	N/A		
amplers	: Gra	ıb sam	iple co	ollect	ted in 6	3-inch s	tainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Time	e:	1	N/A		
5														Est.	% o	f So	il
Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
s	E 0	шо_		>	1-		SM	Silty Sand, d and rootlets,	lark yellowish brown (1 no odor, no staining [ເ	0YR 3/4), medium de Colluvium]	ense, dry	to moist, roots		5	20	30	
					-	(S)(45)(3)		Total Depth	= 1.5 ft.								\dagger
					_			Collected so	il sample S001 at 08:1	5 from excavation flo	or.						
					2-				•								
								Excavation b	packfilled 12-02-2009.								
					_												
					3-												
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					9-												
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	MW					4-15	.4h /ft\ •	Boring ID: HZET0224					
Borehole		`					oth (ft): 4						_
Northing			166.21				t): 1796						
Drill Start							e: NR	Logged By: A. Goldenberg Reviewed By: V. Va		sin, F	P.G.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ 0					•		ne: N/A	Driller's Name: Not applicable					
Commen	ts: Soi	I cove	red wi	ith m	owed	grass a	and brus	at surface Well Comp. Date: N/A Completion	n Tim	e:	N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill T	me:		N/A		
Sample Interval Retained Sample Type							_				% o	f So	il
Sample Inter Retained Sample Type				<u></u>	Ð	og	USCS Soil Classification			Coarse Sand	_		
드 및 드	Recovery (%)		PID (ppm)	Water Level	ĘĘ	Graphic Log	Soi ica	Description		ြတ္တိ	Med. Sand	Fine Sand	>
혈혈혈	ŏ	ıţ.	ď	<u>-</u>	£	j.	SS	•	_ ⊚	Se	S.	ဖွဲ	۳.
Sample In Retained Sample Ty	ě Ç	Blow Count/6"	₽	at l	ebi	a	SC		Gravel	oa	<u> e</u>	i.	Silt/Clav
S E S	re e⊃	шО	Δ.	>	Depth (feet)	G	<u></u> ⊃ ບ	70 T 11 10D1 100 01 7 100 1	၂ၓ	၂၀	2	ш	S
					•			[See Trench Log ISRA-HVS-2A for lithology]					
					-								
					1-								
					-								
					_								
					2-								
					-								
					3-								
					-	200	SM	Silty Sand, dark yellowish brown (10YR 3/4), dense, moist, organic debris					
∭ s								(rootlets), no odor, no staining [Colluvium]					
					4	Mada		T. I.D. II. 100					
								Total Depth = 4.0 ft.					
								Collected soil sample S001 at 08:20 from excavation floor.					
					_								
								Excavation backfilled 12-02-2009.					
					5-								
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rerval	267147.72 09-15-2009 09-15-2009 :): N Drilling (ft): N covered with	2 Ea 29 St 29 Fi N/A Da N/A Da N/A Da vith mowed collected in	asting (fit tart Time nish Tim ate / Tim ate / Tim grass a	ne: NR ne: N/A ne: N/A no: N/A	h at surface steel sleeve	Job Number: 188 Logged By: A. O Drilling Contractor Drill Rig Type/Met Driller's Name: N	SRA Sampling - O 1614 Goldenberg Envirosolve hod: Grab (hand s lot applicable Well Comp. [Soil Backfill [Description	Site: Ha Reviewe Field Ins ampling) Date: N/A	appy Valley Soted By: V. Vathistrumentation: Completion Backfill Tim	nasi N/A Time	in, P		Fine Sand	il Silt/Olax
Samble Interval Samble Interval Samble Type Samplers: Grab Samplers: Grab Samplers: Grab Samplers: Grab	267147.72 09-15-2009 09-15-2009 :): N Drilling (ft): N covered with	2 Each Day St Da	asting (fl tart Time nish Tim ate / Tim ate / Tim grass a 6-inch s	t): 1796 e: NR ne: NR ne: N/A ne: N/A and brush	h at surface steel sleeve	Job Number: 188 Logged By: A. Drilling Contractor Drill Rig Type/Met Driller's Name: N	n1614 Goldenberg Envirosolve nod: Grab (hand s lot applicable Well Comp. [Soil Backfill [Description	Site: Ha Reviewe Field Ins ampling) Date: N/A	ed By: V. Vathestrumentation:	Time	e: N Est.	I/A I/A % of		
Samplers: Grab Becovery Sample Type Samplers: Grab Samplers: Grab Samplers: Grab Samplers: Grab Samplers: Grab	09-15-2009 09-15-2009 (b): N Drilling (ft): N covered with	N/A Dawith mowed collected in Debth (teet)	tart Time nish Tim ate / Tim ate / Tim grass a 6-inch s	e: NR ne: NR ne: N/A ne: N/A nd brush stainless	h at surface steel sleeve	Logged By: A. On Drilling Contractor Drill Rig Type/Met Driller's Name: N	Goldenberg Envirosolve mod: Grab (hand s lot applicable Well Comp. [Soil Backfill [Description	Reviewe Field Ins ampling)	ed By: V. Vathestrumentation:	Time	e: N Est.	I/A I/A % of		
Sample Interval Sample Interval Scample Interval Scample Interval Scample Type Comments: Soil Comments: Grab Sample Type (%) (%) (%) (%) (%) (%) (%) (%) (%) (%)	09-15-2009 b): N Drilling (ft): N covered with sample co	N/A Dawith mowed collected in Debth (teet)	nish Tim ate / Tim ate / Tim grass a 6-inch s	ne: NR ne: N/A ne: N/A nnd brush	steel sleeve	Drilling Contractor Drill Rig Type/Met Driller's Name: N	: Envirosolve hod: Grab (hand s lot applicable	Field Insampling) Date: N/A	completion	Time e:	e: N Est.	I/A I/A % of		
Sampler: Graph Sample Metained Samplers: Graph (%) (%) (%)	covered with sample co	N/A Davith mowed collected in Debth (feet)	ate / Tim ate / Tim grass a 6-inch s	ne: N/A ne: N/A and brush	steel sleeve	Drill Rig Type/Met Driller's Name: N	nod: Grab (hand s lot applicable Well Comp. [Soil Backfill [Description	ampling) Date: N/A	Completion	Time e:	Sand Sand	I/A % of		
Samplers: Graph Recovery Recovery (%) (%)	Drilling (ft): N	vith mowed collected in Popularies (see 1) Populari	ate / Tim grass a 6-inch s	ne: N/A and brush stainless	steel sleeve	Driller's Name: N	Nell Comp. [Soil Backfill [Description	Date: N/A		e:	Sand Sand	I/A % of		
Sample Type Sample Type Sample Type (%) (%)	covered with sample co	Water Level Water Level O Depth (feet)	grass a 6-inch s	nd brush	steel sleeve	,	Well Comp. [Soil Backfill [Description			e:	Sand Sand	I/A % of		
Retained Sample Type Sample Type (%) (%)	b sample co	Mater Level O Depth (feet)	6-inch s	stainless	steel sleeve		Soil Backfill [e:	Sand Sand	% of		
	Blow Count/6"	1-	Graphic Log	USCS Soil Classification	[See Trenc	ch Log ISRA-HVS-2	Description				Sand			
	Blow Count/6"	1-	Graphic Log	USCS Soil Classification	[See Trenc	ch Log ISRA-HVS-2	·			Gravel	Coarse Sand	Med. Sand	Fine Sand	
s		1-	-		[See Trenc	ch Log ISRA-HVS-2	A for lithology]							
		5- 5-		SM	Total Depth Collected s	, dark yellowish brow otlets), no odor, no s th = 3.8 ft. soil sample S001 at n backfilled 12-02-20	taining [Colluvium] 08:30 from excavat		noist, organic		10	30	25	
		9-	-											

	MW				1_			Boring ID: HZET0226					
Borehole							th (ft): 4						_
Northing			129.30				t): 1796						_
Drill Start			5-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vatha		n, P	.G.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				_
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0					•		ne: N/A	Driller's Name: Not applicable					_
								at surface Well Comp. Date: N/A Completion			N/A		
Samplers	: Gra	b sam	iple co	ollect	ted in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tim			N/A		_
Interval 1 Type	>	_	<u></u>	evel	eet)	Log	oil ation		E	_	% of E		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
					_0-			[See Trench Log ISRA-HVS-2A for lithology]	<u> </u>		_		t
					1								
s					3— 4—		SM	Silty Sand, dark yellowish brown (10YR 4/4), dense, moist, organic debris (rootlets), no odor, no staining [Colluvium] Total Depth = 4.0 ft.		5	20	35	
					5—			Collected soil sample S001 at 08:35 from excavation floor. Excavation backfilled 12-02-2009.					
					_								
					6-								
					7-								
					8-								
					9-								
					10-								

	MW				1_	4-15	41- 750	Boring ID: HZET0227					
Borehole							oth (ft): 4						_
Northing (108.54				t): 1796						
Orill Start			5-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Va	hanas	in, P	.G.		
Orill Finis	h Date:	: 09-1	5-2009	9			ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st		-		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ 0	O After	Drillin	g (ft): N	N/A	Da	ite / Tin	ne: N/A	Driller's Name: Not applicable					
Comment	ts: Soi	l cove	red wi	th m	owed (grass a	and brus	at surface Well Comp. Date: N/A Completic	n Tim	e: l	N/A		
Samplers	: Gra	b sam	ple co	llect	ed in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill T	me:		N/A		
<u> </u>							_			Est.	% o	f So	il
Sample Interval Retained Sample Type				 	£	g	USCS Soil Classification			P	l_		
בֿ ק בֿ	Recovery (%)	-	Ē	Water Level	Depth (feet)	Graphic Log	Soil	Description		Coarse Sand	Med. Sand	Fine Sand	;
Sample In Retained Sample Ty	Š	Blow Count/6"	PID (ppm)	声	E.) Š	S S		<u> </u>	Se	ů.	S	Silt/Clay
am eta am	Š @	<u> </u>	₽	at	ebi	Lag	SC		Gravel	oa	ed	ine	1,41
<u>ა</u> ლ თ	೭೮	စာပ	Δ.		_0_	g	n o		<u> </u>	ပ	Σ	ш	v.
					·			[See Trench Log ISRA-HVS-2A for lithology]					
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					1-								
					•								
					_								
					2-								
					_								
					-								
					3-								
					-								
×					4		CM	City Cand days valleyish hyayya (40VD 4/C), dance maist arranic debris		_	20	25	
∭ s							SM	Silty Sand, dark yellowish brown (10YR 4/6), dense, moist, organic debris (rootlets), no odor, no staining [Colluvium]		5	30	25	40
								(rootate), no ottoming [containing					
<u> </u>					_	1.11,71.1.1		Total Depth = 4.5 ft.					
								Collected call comple 2004 at 00:40 from avecyation floor					
					5			Collected soil sample S001 at 09:48 from excavation floor.					
								Excavation backfilled 12-02-2009.					
					_								
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					7								
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<u>w</u>	MW				1				ID: HZE								_
	e Diam.						th (ft): 4.			A Sampling - Outfall							—
Northing			088.09				t): 1796		er: 18916			Happy Valley So					_
	rt Date:		5-2009		- 1		e: NR		y: A. Gol	-		wed By: V. Vath		in, P	.G.		
	ish Date						ne: NR			Envirosolve		nstrumentation:	N/A				
	st H ₂ O (N/A			ne: N/A			: Grab (hand sampl	ing)						_
	I₂O Afte						ne: N/A		ame: Not								
								at surface		Well Comp. Date:		Completion	Time		N/A		
Sample	rs: Gr a	ab sam	ple co	llect	ed in 6	inch s	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			N/A		_
Sample Interval Retained	,						_							Est.	% o	So	Ш
Sample Interv Retained	2			[ĕ]	et)	Graphic Log	USCS Soil Classification							Coarse Sand	٦	_	
Sample II Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	<u>i</u>	S Lici			Description			_	S	Med. Sand	Fine Sand	
ain Tain	칠	r ¥	<u>e</u>	Į.	oth	hdı	CS SSi						Gravel	ars	9	e S	
Ret	§ & 8	80	문	S	Del	Gra	US						5	ပ္ပိ	Me	ᇤ	
	+		_	H	_0-			[See Trench Log ISR	-HVS-2Δ fc	or lithology]			┿	+		-	$^{+}$
								[OOO TOHO!! LOG TO!!	27.110	or minology]							
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					1-												
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					2-												
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					3-												
					1												
					4	2010	SM	Silty Sand, dark yello	ish brown (10YR 4/6), dense. mo	oist, roots a	ind rootlets.		5	30	25	
S	3							no odor, no staining [Colluvium]		,					_	
\otimes					4	M3545		Total Death 1 5 6					-	1			4
								Total Depth = 4.5 ft.									
					_			Collected soil sample	S001 at 10:	00 from excavation flo	oor.						
					5-			Excavation backfilled									
								Excavation Dackiiiled	12-02-2009	•							
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	MW					4-15	.4h /ft\ •		Boring ID: HZE		1000 *							
Borehole						•	oth (ft): 4			Sampling - Outfal								—
Northing			049.69				t): 1796		Job Number: 189161				Valley Sou					
Orill Start							e: NR		Logged By: A. Gold	_			: V. Vatha		in, P	.G.		
Orill Finis							ne: NR		Drilling Contractor: E			eld Instrum	nentation: I	N/A				
Depth 1st		-		N/A			ne: N/A		Drill Rig Type/Method:		ling)							
Depth H ₂							ne: N/A		Driller's Name: Not a									
Commen	ts: Soi	I cove	red wi	ith m	owed	grass a	and brus	h at surface		Well Comp. Date:	N/A	(Completion	Time	e: I	N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in 6	3-inch	stainless	steel sleeve		Soil Backfill Date:	N/A	I	Backfill Time	e:	- 1	N/A		
Sample Interval Retained Sample Type							_									% of	So	il
Sample Interv Retained Sample Type				<u></u>	Ð	og	USCS Soil Classification								Coarse Sand	_		
= p ←	Recovery (%)	<u>.</u>	PID (ppm)	Water Level	Depth (feet)	Graphic Log	Soi ica			Description					ŝ	Med. Sand	Fine Sand	>
Sample In Retained Sample Ty	8	Blow Count/6"	ď	<u>-</u>	Ē	j.	SS			•				Gravel	Se	σ.	ű	Cil+/Clay
am eta am	Š.	<u> </u>	₽	at	eb	la l	SC							ğ	oa	<u>led</u>	ine	*
n E O	೭೮	<u>ш</u> С	Δ.	>	_0_	Ö	_ာပ							ဗ	ပ	2	ч	U
					Ū			[See Trench	Log ISRA-HVS-2A for	lithology]								
					-													
					1-													
					_													
					2-													
					-													
					3-													
					-			Sandstone,	yellowish brown (10YF	5/6) to dark yellowi	sh browi	n (10YR 4	/6),					
∭ s								weathered,	hard, no odor, no stain	ng [Chatsworth For	mation]	`	,,					
					4													1
								Total Depth	= 4.0 ft.									
								Collected sa	ample S001 at 10:10 fro	om excavation floor.								
					-													
								Excavation	backfilled 12-02-2009.									
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orehole Dia lorthing (ft):	am (in)·	2		I Tak	4-1 D							
orthing (ft):						th (ft): 3.	·					_
		145.16				t): 1796						
rill Start Da	ate: 09- 2	29-2009	9			e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath	anasi	in, P	G.		
rill Finish D		29-2009	•	Fin	ish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				_
epth 1st H ₂			N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
epth H ₂ O A				•		ne: N/A	Driller's Name: Not applicable					_
omments:								Time		I/A		
	Grab sar	nple co	llect	ed in 6	inch s	tainless	steel sleeve Soil Backfill Date: N/A Backfill Tim			I/A		_
Retained Sample Type Recovery	(%) Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description [See Trench Log ISRA-HVS-2A for lithology]	Gravel	Coarse Sand	Med. Sand	Fine Sand 6	T
S				1- 2-	00000000 0000000000 000000000000000000	SM	Silty Sand, dark yellowish brown (10YR 4/4), medium dense to dense, dry to moist, subangular to subrounded gravel, roots, no odor, no staining [Colluvium]	5	10	25	20	
				3 —	20020000000000000000000000000000000000		Total Excavation Depth = 3.3 ft. Collected soil sample S001 at 10:25 from excavation sidewall. Excavation backfilled 12-02-2009.					
				5-								
				6-								
				7-								
				8-								
				9-								

	MW				1_		11 /60 -		g ID: HZE								_
Borehole							th (ft): 3			Sampling - Outfall 00							—
Northing (93.60				t): 1796		mber: 189161			ppy Valley Sou					
Drill Start			9-2009				e: NR		By: A. Gold	-		d By: V. Vatha		in, P	G.		
Drill Finish							ne: NR		Contractor: E			rumentation: I	N/A				
Depth 1st		•		N/A			ne: N/A			Grab (hand sampling	g)						_
Depth H ₂ 0							ne: N/A	Driller's	Name: Not a								
Comment										Well Comp. Date: N		Completion	Time		I/A		
	Gra	b sam	ple co	ollect	ed in 6	6-inch	stainless	steel sleeve		Soil Backfill Date: N	//A	Backfill Time			I/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	[See Trench Log ISF		Description			Gravel	Coarse Sand	Med. Sand	Fine Sand 8	
⊗ ∎ s					1 2		SM	Silty Sand, dark yell	owish brown (1	0YR 4/4), medium der ravel, roots and rootlet	nse to dense is, no odor,	e, dry to no staining	5	10	30	20	3
					- 4 -	-		Total Excavation De Collected soil sampl Excavation backfilled	e S001 at 10:1	5 from excavation side	wall.						
					5-												
					6-												
					7-												
					8-												
					9-												
					10-												

	MW				1_				Boring ID: HZE		•						_
Borehole							th (ft): 2			Sampling - Outfall 00							_
Northing			219.49				t): 1796		Job Number: 189161		Site: Happy Va						_
Orill Start			9-2009		- 1		e: NR		Logged By: A. Gold	_	Reviewed By:			n, P	G.		
Orill Finis							ne: NR		Drilling Contractor: E		Field Instrumen	tation: N	I/A				_
Depth 1st				N/A			ne: N/A			Grab (hand sampling)						_
Depth H ₂ 0					•		ne: N/A		Driller's Name: Not a								_
Commen										Well Comp. Date: N/		mpletion 1	Γime		I/A		_
	: Gra	b sam	ple co	ollect	ted in 6	6-inch	stainless	steel sleeve		Soil Backfill Date: N/	A Bac	ckfill Time			I/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Silty Sand, d	dark vellowish brown (1	Description OYR 4/4), loose to med	ium dense, dry,		0 Gravel	coarse Sand	Med. Sand 0	So Eine Sand	
S					- 1- -			subangular g	gravél, no odor, no stài	ning [Colluvium]	, ,,						
					2-			Total Excava	ation Depth = 2.0 ft.								ł
									·								
					-	-		Collected so	oil sample S001 at 10:0	5 from excavation side	vall.						
								Excavation b	oackfilled 12-02-2009.								
					3-												
					3												
					-	-											
					4												
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	MW				Ι.	=			Boring ID: HZ								_
orehole							th (ft): 1			SRA Sampling - Out							_
lorthing (189.78				t): 1796		Job Number: 189			lappy Valley So					_
rill Start							e: NR		Logged By: A. C	_	I	ved By: V. Vath		in, P	.G.		
rill Finisl							ne: NR		Drilling Contractor:			strumentation:	N/A				_
epth 1st				N/A			ne: N/A			od: Grab (hand san	npling)						_
epth H ₂ 0							ne: N/A		Driller's Name: N								_
comment	s: Loc	ated u	ınder	oak t	ree; so	oil surfa	ace, san	dstone outcro	p nearby	Well Comp. Da	e: N/A	Completion	Time		N/A		_
	: Gra	b sam	ple co	ollecte	ed in 6	6-inch s	tainless	steel sleeve		Soil Backfill Dat	e: N/A	Backfill Tim			N/A		_
Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Silty Sand o	dark brown (10YR S	Description (3/3), medium dense, o	try to moist ro	ots and	o Gravel	Coarse Sand	% one Sand 20	S Fine Sand	
S S					1-		SM	rootlets, no o	odor, no staining [C	is), meaium aense, d	iry to moist, rod	ots and	0	5	20	35	
										11:10 from excavation	floor						
					2-	-					1 11001.						
								Excavation I	backfilled 12-02-20	09.							
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Sample Interv Retained Sample Type Recovery (%) Blow Count/6" PID (ppm) Water Level Classification USCS Soil Classification Graphic Log USCS Soil Graphic Log Graphic Log Graphic Log Gravel		24	_		
Drill Start Date: 09-29-2009 Start Time: NR Logged By: A Goldenberg Reviewed By: V. Vathanasin Drill Finish Date: 09-29-2009 Finish Time: NR Drilling Contractor: Envirosolve Field Instrumentation: NA Depth 14,0 (ft): NVA Date: Time: NIA Drilling TypeMethod: Grab (hand sampling) Depth 14,0 After Drilling (it): NIA Date: Time: NIA Drilling TypeMethod: Grab (hand sampling) Depth 14,0 After Drilling (it): NIA Date: Time: NIA Driller's Name: Not applicable Well Comp. Date: NIA Completion Time: Samplers: Grab sample collected in 6-inch stainless steel sleeve Well Comp. Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Description Description Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Engage of the collected in 6-inch stainless steel sleeve Well Comp. Date: NIA Backfill Time: NIA Backfill Time: NIA Soil Backfill Date: NI				_	_
Drill Finish Date: 09-29-2009 Finish Time: NR Drilling Contractor: Envirosolive Field Instrumentation: N/A Depth 15t H.J.O.(ft): N/A Date / Time: N/A Drill rig Type/Nethod: Grab (Anna sampling) Driller's Name: Not applicable Compenses: Soil a surface Samplers: Grab bample collected in 6-Inch stainless steel sleeve Soil Backfill Date: N/A Backfill Time: N/A Backfill Time: N/A Backfill Time: N/A Driller's Name: Not applicable Compenses: N/A Compellent Time: N/A Backfill Time:	P.G.		_	_	_
Depth H_O After Drilling (ft): N/A Date / Time: N/A Driller's Name: Not applicable Well Comp. Date: N/A Completion Time: Soil at surface Samplers: Grab sample collected in Grab fixed sample sample sample sample collected in Grab fixed sample sa		G.			_
Depth H.O. After Drilling (ft): N/A Comments: Soil at surface Well Comp. Date: N/A Completion Time: Soil Backfill Date: N/A Backfill Time: Backfill Time: Backfill Time: Backfill Time: Backfill Time: Backfill Date: N/A Backfill Time: Completion Time: Backfill Time: Backfil			_	_	_
Comments: Soil at surface Samples: Grab sample collected in 6-inch stainless steel sleeve Soil Backfill Date: NIA Backfill Time: Fig.			_	_	_
Samplers: Grab sample collected in 6-inch stainless steel sleeve Soil Backfill Date: N/A Backfill Time: Example of Land Backfill Date: N/A Backfill Time: Description Description Description Description Silty Sand. dark brown (10YR 3/3), medium dense to dense, dry to moist, subangular to subrounded gravel, roots, no odor, no staining [Colluvium] Soll Backfill Date: N/A Backfill Time: Example of Land Backfill Date: N/A Description Description Silty Sand. dark brown (10YR 3/3), medium dense to dense, dry to moist, subangular to subrounded gravel, roots, no odor, no staining [Colluvium] Soll Backfill Date: N/A Description Description Description Soll Backfill Date: N/A Description Description Description Description Soll Backfill Date: N/A Description					_
Popular Popu	N/A	/A			_
SM Silty Sand, dark brown (10YR 3/3), medium dense to dense, dry to moist, subangular to subrounded gravel, roots, no odor, no staining [Colluvium] 1— [See Trench Log ISRA-HVS-2A for lithology] 2— Total Excavation Depth = 2.8 ft. Collected soil sample S001 at 11:20 from excavation sidewall. Excavation backfilled 12-02-2009. 4— 5— 6— 6—	N/A				
SM Sitly Sand, dark brown (10YR 3/3), medium dense to dense, dry to moist, subangular to subrounded gravel, roots, no odor, no staining [Colluvium] 1— 1— Total Excavation Depth = 2.8 ft. Collected soil sample S001 at 11:20 from excavation sidewall. Excavation backfilled 12-02-2009. 4— 6— 6—	t. % Pool See Sall Med Sept Me	Med. Sand	Τ	Fine Sand 0	
Total Excavation Depth = 2.8 ft. Collected soil sample S001 at 11:20 from excavation sidewall. Excavation backfilled 12-02-2009. 5- 6-		20		330	
Collected soil sample S001 at 11:20 from excavation sidewall. Excavation backfilled 12-02-2009. 5- 6- -					
4 — 5 — 6 — -	+		_	_	_
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6- -					
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7 _					
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		H			1_	4-15	41- 750 -	Boring ID: HZET0235					_
Borehole							oth (ft): 3	i i					—
Northing			068.59				t): 1796						_
Drill Start			9-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		—
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂				N/A	Da	ite / Tin	ne: N/A	Driller's Name: Not applicable					
Commen								Well Comp. Date: N/A Completion			N/A		
	: Gra	b sam	iple co	ollect	ted in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tim			N/A		
, <a< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td>_</td><td>% of</td><td>So</td><td>1</td></a<>							_			_	% of	So	1
Sample Interval Retained Sample Type			=	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Coarse Sand	ᅙ	5	
Sample Ir Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	4	Ę.	ျှေ	Scific	Description	_	e co	Med. Sand	Fine Sand	
m tair m	6 _	ڃ ڏ	9	힐	pth	aph	CS		Gravel	ars	р	ē	
Sa Sa	88	ಹೆಂ	뭅	8	De	ี อี	US Cla		ື້ອ	ပိ	ĕ	ᇤ	
				\Box	0-			[See Trench Log ISRA-HVS-2A for lithology]					Ť
					-								
					4								
					1-								
					-								
					2-								
					-								
					_								
					3-								
							SM	Silty Sand, dark yellowish brown (10YR 4/4), dense, moist, roots and rootlets,		10	20	35	
⊗ s							Civi	no odor, no staining [Colluvium]		'	20		
						ordele		Total Depth = 3.8 ft.					t
					4			·					
								Collected soil sample S001 at 11:00 from excavation floor.					
					-			Excavation backfilled 12-02-2009.					
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orehole							th (ft): 3						_
lorthing (33.98				t): 1796		_				
rill Start			9-2009				e: NR	Logged By: A. Goldenberg Reviewed By:			'.G.		
rill Finisl							ne: NR	Drilling Contractor: Envirosolve Field Instrument	tion: N/A				_
epth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
epth H ₂ 0					•		ne: N/A	Driller's Name: Not applicable					
								-	oletion Tim		N/A		
	Gra	b sam	ple co	llect	ed in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Back	fill Time:		N/A		
Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	ravel	Sand	Med. Sand	Fine Sand	
▼ •		<u></u>		_	- 0-			Fill [See Trench Log ISRA-HVS-2A for lithology] Silty Sand, vellowish brown (10VR 5/4), dense to very dense, moist, motlets					
S					2- - 3-		SM	Silty Sand, yellowish brown (10YR 5/4), dense to very dense, moist, rootlets, no odor, no staining [Colluvium]		10	25	20	
					_			Total Excavation Depth = 3.0 ft. Collected soil sample S001 at 11:30 from excavation sidewall.					
								Excavation backfilled 12-02-2009.					
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					5-								
					6								
					-								
					7 -								
					8-								
					9								
					_								

י ש	MW	П							Boring ID: HZE								_
Borehole	Diam. (oth (ft): 7			A Sampling - Outfal							_
Northing (086.06		Ea	sting (f	t): 1796	210.63	Job Number: 189161	4	Site: Haj	opy Valley Sou	ıth -	HVS	-2A		_
Orill Start	Date:	10-0	5-2009	•			e: NR		Logged By: A. Gold	denberg	Reviewed	By: V. Vath	anas	in, P	.G.		_
Orill Finisl	h Date:	10-0	5-2009	•	Fin	ish Tin	ne: NR		Drilling Contractor: E	nvirosolve	Field Inst	rumentation:	N/A				_
Depth 1st	H ₂ O (f	t):	1	N/A	Da	te / Tin	ne: N/A		Drill Rig Type/Method:	Grab (hand samp	ling)						_
Depth H ₂ 0	O After	Drilling	g (ft): N	N/A	Da	te / Tin	ne: N/A		Driller's Name: Not a	applicable							_
Comment	s: Fill	soil at	surfa	се						Well Comp. Date:	N/A	Completion	Time	e: N	N/A		_
	: Gra	b sam	ple co	llect	ed in 6	-inch	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			I/A		_
<u> </u>							_								% of	So	اiد
Sample Interval Retained Sample Type			_	<u></u>	ੜ	Graphic Log	USCS Soil Classification							Coarse Sand	-	_	
ed =	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	CL	Soi			Description				Š	Med. Sand	Fine Sand	
Sample II Retained Sample T	ŏ	ınt√	d)	ē	ŧ	phi	SSif			-			Gravel	ız.	S	ŝ	
Set;	% %	30	٥	Aat)ep	<u>ra</u>	Slas						ā	Soa	Jec	<u>=</u>	
, E 0	ш 🖰			-	_0−			ICan Transl	b Log ISDA HIVE 2A for	r lithology/l			+-	۳	_	-	+
								[See Trenci	h Log ISRA-HVS-2A for	r iitriologyj							
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8 s								Sandstone,	, very pale brown (10YF oressure, no odor, no sta	K //4), moderately w	eathered, hard	triable with					
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~					7			Total Depth	n = 7.0 ft.								-
								•		2001 DWOOD -+ 40	EE from over	ation floar					
					4			Collected s	oil samples S001 and S	OUU I-RWQUB AT 13	vsoxa mon cc.	สแบท ทิ 00 ที.					
								Excavation	backfilled 12-02-2009.								
					8-												
					0												
					+												
					9-												
					3												
					+												
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Drill Start Date: 10-05-2009 Start Time: NR Logged By: A. Goldenberg Reviewed	ppy Valley Sout	th -	шуу			_
Drill Start Date: 10-05-2009 Start Time: NR Logged By: A. Goldenberg Reviewed Drill Finish Date: 10-05-2009 Finish Time: NR Drilling Contractor: Envirosolve Field Instr Depth 1st H ₂ O (ft): N/A Date / Time: N/A Drill Rig Type/Method: Grab (hand sampling) Depth H ₂ O After Drilling (ft): N/A Date / Time: N/A Driller's Name: Not applicable		<u>th - </u>	H//S			
Drill Finish Date: 10-05-2009 Finish Time: NR Drilling Contractor: Envirosolve Field Instruction: Depth 1st H ₂ O (ft): N/A Date / Time: N/A Drill Rig Type/Method: Grab (hand sampling) Depth H ₂ O After Drilling (ft): N/A Date / Time: N/A Driller's Name: Not applicable	d Bv: V. Vathar					
Depth 1st H ₂ O (ft): N/A Date / Time: N/A Drill Rig Type/Method: Grab (hand sampling) Depth H ₂ O After Drilling (ft): N/A Date / Time: N/A Driller's Name: Not applicable	,	nas	in, F	P.G.		
Depth H ₂ O After Drilling (ft): N/A Date / Time: N/A Driller's Name: Not applicable	trumentation: N	I/A				_
						_
Comments: Fill soil at surface Well Comp. Date: N/A						
	Completion T	Time	e:	N/A		
Samplers: Grab sample collected in 6-inch stainless steel sleeve Soil Backfill Date: N/A	Backfill Time	e:		N/A		
		l	Est.	. % c	of S	ioi
Retained Sample Interval Retained Sample Type (%) (%) Blow Count/6" DID (ppm) USCS Soil Classification uscs Soil Classification uscs Soil Classification USCS Soil Classification		vel	Coarse Sand	Med. Sand	Fine Cand	rine Sand
Rec San Net Sa		Gravel	ပိ	Mec	i i	É
[See Trench Log ISRA-HVS-2A for lithology]						
2-						
3-						
4-						
Sandstone, yellowish brown (10YR 5/4), moderately weathered, hard, staining [Chatsworth Formation]	, no odor, no					
Total Depth = 6.3 ft.						-
Collected soil samples S001 and S001-RWQCB at 14:00 from excava	ration floor.					
LACAVALIOTI DACKIIIIEU 12-02-2009.						
9-						

	ИW							Boring ID: HZET0239					
Borehole							oth (ft): 5	• •					
Northing (ft):		75.21				t): 179 6		uth -	HVS	-2A		
Orill Start	Date:	10-0	5-2009	9			e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath	anas	in, P	.G.		
Orill Finish	n Date:	10-0	5-2009	9	Fir	nish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st	H ₂ O (f	t):	1	N/A	Da	ate / Tin	ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ C) After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A	Driller's Name: Not applicable					
Comment	s: Fill	soil at	t surfa	се				Well Comp. Date: N/A Completion	Time	e: 1	N/A		
Samplers	Gra	b sam	iple co	ollect	ted in 6	6-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tin	ie:	1	N/A		
ਰ ∣							_			Est.	% o	f So	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description [See Trench Log ISRA-HVS-2A for lithology]	Gravel	Coarse Sand	Med. Sand	Fine Sand	Cil+/Clay
S					1		SM	Silty Sand with Gravel, yellowish brown (10YR 5/4), medium dense, dry to moist, subangular gravel, wood debris, roots and rootlets, no odor, no staining [Fill]	15	5	30	25	2:
					_								
					6			Total Excavation Depth = 5.8 ft.					T
					3			Collected soil sample S001 at 14:18 from excavation sidewall.					
					-	-		Excavation backfilled 12-02-2009.					
					7-								
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Site: Happy Valley South - HVS-2A Site: Happy Valley South - H	Northing of the Comments Comm	₩ MW							Boring ID: HZET0240					_
Start Time: NR Logged By: A Goldenberg Reviewed By: V. Vathanasin, P.G.	Description San Times NR Loaced By. A Goldenberg Reviewed By. V. Vathanasain, P.G. Description Piers American Processory Pier India Times NR Description Piers NR Description Pi								• •					_
prill Finish Date: 10-05-2009 Finish Time: NR Drilling Contractor: Envirosolve Field Instrumentation: N/A	Description Section S	Northing (ft):												_
Pepth H.O. After Drilling (ft): NA Date / Time: N/A Drill Rig Type/Method: Grab (hand sampling)	Sept Sept H.D. (Ph. M.A. Date / Times N.A. Date / Ti	Orill Start Date:	10-0	5-2009)	- 1				anas	in, P	.G.		_
Description	Septiments: Fill politing (II); MA Septiments: MA Septiments	Drill Finish Date	e: 10-0	5-2009)	Finis	sh Tim	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				_
Comments Fill soil at surface Well Comp. Date: N/A Backfill Time: N/A	Sommers: Fill soll at surface Well Comp. Date: NIA Soll Backfill Date: NIA Backfill Time: NIA Soll Backfill Date: NIA Backfill Time: NIA Bac	Depth 1st H ₂ O	(ft):	N	N/A	Date	e / Tim	ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Test. % of Soil Backfill Date: N/A Backfill Time: N/A Backfill Time: N/A Est. % of Soil Backfill Date: N/A Backfill Time: N/A Backfill Time: N/A Est. % of Soil Backfill Date: N/A Backfill Time: N/A Est. % of Soil Backfill Date: N/A Backfill Time: N/A Est. % of Soil Backfill Date: N/A Backfill Time: N/A Est. % of Soil Date: N/A Backfill Time: N/A Est. % of Soil Date: N/A Backfill Time: N/A Backfill Time: N/A Est. % of Soil Date: N/A Backfill Time: N/A Est. % of Soil Date: N/A Backfill Time: N/A Backfi	Samples Grab sample collected in 6-inch stainless steel sleeve Sail Backfill Date: N/A Backfill Time: N/A	Depth H ₂ O Afte	r Drillin	g (ft): N	N/A	Date	e / Tim	ne: N/A	Driller's Name: Not applicable					_
Est. % of Soil plant and the sample Type and s	SM Silly Sand, yellowish brown (10YR 5/6), dense, moist, roots and rootlets, no odor, no staining [Colluvium] Solution (10 of 10 of	Comments: Fil	l soil a	t surfa	се				Well Comp. Date: N/A Completion	Time	: N	N/A		
Description Sample Type Sand Plot Plo	Bull purps and produce and pro	Samplers: Gr	ab san	ple co	llecte	d in 6-i	inch s	tainless	steel sleeve Soil Backfill Date: N/A Backfill Tim	e:	N	N/A		
1— 2— 3— 4—	SM Silly Sand, yellowish brown (10YR 5/6), dense, moist, roots and rootlets, no odor, no staining [Colluvium] Total Depth = 6.5 ft. Collected soil sample S001 at 14:10 from excavation floor. Excavation backfilled 12-02-2009.	g						_			_	% of	So	اiد
[See Trench Log ISRA-HVS-2A for lithology] 1— 2— 3— 4— —	SM Silty Sand, yellowish brown (10YR 5/8), dense, moist, roots and rootlets, no odor, no staining [Colluvium] Total Depth = 6.5 ft. Collected soil sample \$001 at 14:10 from excavation floor. Excavation backfilled 12-02-2009.	Sample Interv Retained Sample Type Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
	SM Silty Sand, yellowish brown (10YR 5/6), dense, moist, roots and rootlets, no odor, no staining [Colluvium] Total Depth = 6.5 ft. Collected soil sample S001 at 14:10 from excavation floor. Excavation backfilled 12-02-2009.					2- 3- 4-								
						7-			Collected soil sample S001 at 14:10 from excavation floor.					
7— Collected soil sample S001 at 14:10 from excavation floor.						8- 9-								

	ИW							Boring ID: HZET0241					
Borehole							th (ft): 4						
Northing (70.21				t): 1796						
Orill Start	Date:	10-0	5-2009	9			e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Orill Finisl	n Date:	10-0	5-2009	9			ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ 0) After	Drillin	g (ft): N	N/A	Da	ite / Tin	ne: N/A	Driller's Name: Not applicable					
Comment	s: Fill	soil at	t surfa	се				Well Comp. Date: N/A Completion	Time	e: I	N/A		
Samplers	Gra	b sam	ple co	llect	ed in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tin	ne:		N/A		
<u> </u>							_			Est.	% o	f So	il
Sample Interval Retained Sample Type				 	t	g	USCS Soil Classification			pu			
= ₇	Recovery (%)	<u>.</u>	Ē	Water Level	Depth (feet)	Graphic Log	Soil	Description		Coarse Sand	Med. Sand	Fine Sand	>
	Š	ž	dd)	闏	<u>با</u>	Ř	S S sif		<u>ē</u>	Se	ŝ	S	ان ا
Sample In Retained Sample T	Š @	Blow Count/6"	PID (ppm)	at	ebl	Lag	SC		Gravel	oa	ed	ine	Silf/Clay
n ex o	ಜಲ	ကာ ပ	_		_0_	g	n o		၂	ပ	Σ	ш	S
					·			[See Trench Log ISRA-HVS-2A for lithology]					
					-								
					1-								
					•								
					-								
					2-								
					-								
					3-								
					-								
					4								
X					•		SM	Silty Sand, yellowish brown (10YR 5/4), dense, moist, no odor, no staining		10	30	25	3
s								[Colluvium]					
					_	5464445		Total Depth = 4.5 ft.					
								·					
					5			Collected soil sample S001 at 14:05 from excavation floor.					
								Excavation backfilled 12-02-2009.					
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	MW				1_	4-15	41- 750 -		Boring ID: HZE1		.					_
Borehole							oth (ft): 6			Sampling - Outfall 008						—
Northing (92.24				t): 1796		Job Number: 1891614		Site: Happy Valley Sou					—
Orill Start			6-2009				e: NR		_ogged By: A. Golde	_	Reviewed By: V. Vath		in, P	.G.		
Orill Finisl							ne: NR		Orilling Contractor: En		Field Instrumentation:	N/A				_
Depth 1st				N/A			ne: N/A			Grab (hand sampling)						_
epth H ₂ 0					Da	ate / Tin	ne: N/A		Oriller's Name: Not ap							
Comment										Well Comp. Date: N/	A Completion	Time		N/A		
	: Gra	b sam	ple co	ollect	ted in 6	6-inch s	stainless	steel sleeve		Soil Backfill Date: N/	A Backfill Tim			N/A		
Sample Interval Retained Sample Type							_							% o	f So	<u>il</u>
Sample Interv Retained Sample Type			_	<u>ē</u>	et)	Graphic Log	USCS Soil Classification						Sand	-	_	
= p ⊢	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	C L	Soi			Description			ŝ	Med. Sand	Fine Sand	
Sample II Retained Sample T	ò	ış≽	ᅙ	<u>-</u>	ŧ	Ph	SS					Gravel	Coarse	S	S	
Set;	%ec	<u>Š</u> Š	Ō	\at	d o(ra	JSC Slas					la la	oa	Jec	<u> </u>	
n IE 0	E 5	шО	п.	>	_0_	U	70	=::: ro =				10	0	2	ш	⊥'
								Fill [See Fren	nch Log ISRA-HVS-2A	for lithology]						
					-	1										
					1-											
					-	1										
					2-	-										
					_	1										
					3-	-										
					_		SM	Silty Sand, da	ark yellowish brown (10	OYR 3/6), dense, moist,	roots and rootlets,		5	25	35	
× .								no odor, no s	staining [Colluvium]							
⊗ s					4-											
					5											
					_											
					6-											
					_											
								Total Excava	tion Depth = 6.5 ft.							
								Collected soil	I sample S001 at 10:10) from excavation sidew	vall					
					7-	1										
								Excavation b	ackfilled 12-02-2009.							
					_]										
					8-	†										
					_											
					9-	†										
					_											
	r		l .		10-			l .				1		1	I	

	ΝW								Boring ID: HZE								
Borehole [th (ft): 4		•	Sampling - Outfall							_
Northing (1			930.03				t): 179 6		Job Number: 189161			appy Valley Sou				1	
Drill Start I	Date:	09-0	1-2009	9			e: NR		Logged By: A. Gold	_	Reviewe	ed By: V. Vath	anasi	in, P	.G.		
Drill Finish	Date:	09-0	1-2009	9	Fi	nish Tin	ne: NR		Drilling Contractor: E			trumentation:	N/A				
Depth 1st		-		N/A			ne: N/A		Drill Rig Type/Method:		ng)						
Depth H₂C							ne: N/A		Driller's Name: Not a								
Comments										Well Comp. Date:		Completion	Time		N/A		
	Gra	b sam	ple co	ollect	ted in (6-inch	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			N/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil	Silty Sand, b	brown (10YR 4/3), dens	Description se, dry to moist, straw	v debris [Fill]		Gravel	Sand	% of Med. Sand	So pue Saud	
					1												
s	s		3-		SM	coarse subro	vith Gravel, light yellow ounded sandstone and ope, asphalt, glass, cop	granitic gravel to 2-1	, dense, moi /2 inches dia	st, fine to ameter, debris	15	10	20	25			
	s			4 5	-		floor.	= 4.0 ft. bil samples S001, S001 backfilled 11-23-2009.	-RWQCB, and D001	at 11:50 fro	m excavation						
					-	-											
					6-												
					7 -	-											
					8-	_											
					9-	-											
					10-												

₩ MWH				Boring ID: HZET0							_
Borehole Diam. (in.	,		epth (ft): 4.0		ampling - Outfall 008 Ar						_
• • • • • • • • • • • • • • • • • • • •	66926.92		(ft): 179612 2			e: Happy Valley Sou				1	
	9-01-2009		ne: NR	Logged By: A. Goldeni	-	viewed By: V. Vatha		in, P	G.		
Drill Finish Date: 0			ime: NR	Drilling Contractor: Envir	•	eld Instrumentation:	N/A				_
Depth 1st H ₂ O (ft):	N/A		ime: N/A	Drill Rig Type/Method: G							_
Depth H ₂ O After Dr		•	ime: N/A	Driller's Name: Not appl							_
Comments: Soil w					/ell Comp. Date: N/A	Completion	Time		I/A		
Samplers: Grab s	sample collec	ted in 6-inch	stainless ste	el sleeve S	oil Backfill Date: N/A	Backfill Time			I/A		_
Sample Interval Retained Sample Type Recovery (%)	Count/6" PID (ppm) Water Level	Depth (feet)	M Classification	De s ilty Sand, brown (10YR 4/3), medium	scription dense, dry to moist, sub	pangular gravel,	o Gravel	Coarse Sand	% O Med. Sand	S Line Sand	
	2- 3-			otlets, no odor, no staining [Fill] becomes light yellowish brown (10Y dense, moist, angular to subrounde	R 6/4) to yellowish brow	n (10YR 5/6),	5		25	30	
		4—————————————————————————————————————		otal Depth = 4.0 ft. ollected soil samples S001 and S000 xcavation backfilled 11-23-2009.	I-RWQCB at 11:38 from	excavation floor.					

orobal- D	om /! `			- I	tal D -	th (#\\ •	_	Drainate COFLICE	A Sampling - Outfall 00	Q Augo					_
orehole Di						th (ft): 3									_
orthing (ft)		66915				t): 1796		Job Number: 189161		Site: Happy Valley S				1	
rill Start D						: NR		Logged By: A. Gold	-	Reviewed By: S. Va		ia, P	G.		
rill Finish I		9-15-2				ne: NR		Drilling Contractor: E		Field Instrumentation:	PID				
epth 1st H			N/A			ne: N/A			: Grab (hand sampling)					—
epth H ₂ O /	After Dril	lling (ft): N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not a							
omments:									Well Comp. Date: N/		on Time		N/A		
	Grab s	ampl	e colle	ted in	6-inch s	stainless	steel sleeve		Soil Backfill Date: N	A Backfill T			N/A		
Retained Sample Type	(%) Blow	Count/6"	PID (ppm) Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Silty Sand h		Description se, dry to moist, subang	ular gravel rootlets	9 Gravel	Coarse Sand	Med. Sand	Fine Sand	
s			0.0	1- 2- 3-		ЭІИ	no odor, no s	staining [Fill]		ulai gravei, rooliets,	5		20	23	1 4
	4-						Collected so sidewall.	ation Depth = 3.5 ft. bil samples S001 and State backfilled 11-23-2009.	6001-RWQCB at 09:15	from excavation					
				5-	-										
				6-	-										
	7-														
					-										
				9-	-										

	D:	/H			Π_			Boring ID: HZET0303					
Borehole							th (ft): 4						—
Northing			26.55				t): 1796					1	
Drill Star			5-2009				e: NR	Logged By: A. Goldenberg Reviewed By: S. Va		la, P	.G.		
Orill Finis	sh Date	: 09-1	5-2009)			ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	PID				
Depth 1s				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂	O Afte	r Drillin	g (ft): N	N/A	Da	te / Tin	ne: N/A	Driller's Name: Not applicable					
Commer	nts: So i	il with	cut br	ush a	t surfa	ace		Well Comp. Date: N/A Completion	n Tim	e: l	N/A		
Samplers	s: Gra	ab sam	ple co	llecte	ed in 6	-inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill T			N/A		
Val							_				% o	f So	il
Sample Interval Retained Sample Type				<u></u>	ਦੂ	og	USCS Soil Classification			Coarse Sand	_		
드	Recovery (%)		PID (ppm)	Water Level	Depth (feet)	Graphic Log	Soi	Description		တိ	Med. Sand	Fine Sand	>
Sample In Retained Sample Ty	. 8	Blow Count/6"	g g	<u>-</u>	<u>۽</u>	ohi	Sif	·	Gravel	l Se	S.	Š	[
ar eta	Sec.	<u> </u>	₽	/at	eb	ā	SC		ā	o	<u>[6</u>	<u>i</u>	Silt/Clav
n E O	R &	m O	Δ.	>	- 0-	9	50		၂ၑ	0	2	ш	ဟ
								[See Trench Log ISRA-HVS-2B-1 for lithology]					
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					1-								
					-								
					+								
					2-								
					1								
					3-								
					-								
					1								
XX					4-	edkradered		0111 0 111 11 11 11 11 11 11 11 11 11 11	_				
⊗ s			0.0		-		SM	Silty Sand, light yellowish brown (10YR 6/4), dense, moist, subrounded gravel, no odor, no staining [Possible Fill]	5	10	25	30	30
			0.0					The odor, the staining [i ossible i iii]					
					†	.51-0-15-40-5		Total Depth = 4.5 ft; terminated on Chatsworth Formation bedrock.					
					5-			Collected soil samples S001 and S001-RWQCB at 09:00 from excavation floor.					
								Excavation backfilled 11-23-2009.					
					1								
					6-								
					+								
					7-								
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	MW Diam					tal D -	4b /44\- *		Boring ID: HZE		00 A						_
Borehole							th (ft): 3		•	A Sampling - Outfall 0							_
Northing (48.69				t): 1790		Job Number: 189161			lappy Valley So				1	
Orill Start			9-2009				e: NR		Logged By: A. Gold	_		ved By: V. Vath		ın, P	.G.		
Orill Finish							ne: NR		Drilling Contractor: E			nstrumentation:	N/A				_
Depth 1st		•		N/A			ne: N/A		Drill Rig Type/Method:		(g)						_
Depth H ₂ C							ne: N/A		Driller's Name: Not a			0 1 11	_				
Comment										Well Comp. Date:		Completion			1/A		
	Gra	b sam	ple co	ollec	ted in	6-inch	stainless	s steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil	Silty Sand w	vith Gravel, very pale b ubangular gravel, rootl	Description rown (10YR 7/4), med ets, no odor, no stainir	ium dense ng [Fill]	e, dry to moist,	OS Gravel	coarse Sand	Med. Sand	S Fine Sand	0:14/0101
∑ s					1- 2- 3-				n Log ISRA-HVS-2B-1		(i. 1)						
					4-				ation Depth = 3.8 ft. bil sample S001 at 08:4	L5 from excavation side	ewall						
					-	_			backfilled 11-23-2009.	ro nom excavation sid	owan.						
					5-												
					6-	_											
					7-												
					8-												
					9-	-											
					-	_											

	MW								Boring ID: HZE								
Borehole	Diam.	`					th (ft): 5		Project: SSFL ISRA	Sampling - Outfall							
Northing (ft):	2669	22.20		Ea	sting (ft	t): 1796	6100.26	Job Number: 189161	l .	Sit	te: Happy Valley Sou	uth -	HVS	-2B-	1	
Drill Start	Date:	09-2	9-2009	9		art Time			Logged By: A. Gold	enberg	Re	eviewed By: V. Vath	anas	in, P	.G.		
Drill Finish	h Date:	09-2	9-2009	9	Fir	nish Tim	ne: NR		Drilling Contractor: E	virosolve	Fie	eld Instrumentation:	N/A				
Depth 1st	H ₂ O (f	t):		N/A	Da	ite / Tim	ne: N/A		Drill Rig Type/Method:	Grab (hand sample	ling)						
Depth H₂0	O After	Drilling	g (ft): I	N/A	Da	ite / Tim	ne: N/A		Driller's Name: Not a	pplicable							
Comment	s: Soi l	at su	rface							Well Comp. Date:	N/A	Completion	Time	e: I	N/A		
Samplers	Gra	b sam	ple co	ollect	ed in 6	3-inch s	tainless	s steel sleeve		Soil Backfill Date:	N/A	Backfill Tim	e:	ı	N/A		
														Est.	% o	f So	il
<u>8</u>				<u></u>	₽	g	<u>.io</u>							pu			Т
ᆂᇴᄼ	2	=_	Ē	ĕ	ee	ן ב	cat		ı	Description				Sa	pu	힏	١,
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		'	2000 IPU011			<u>-</u>	Coarse Sand	Med. Sand	Fine Sand	Silt/Clay
am eta) (9 (9	ov	<u> </u>	ate	ept	Гар	SC						Gravel	Jar	ed.	ne	1+1
တို့ ဆို တိ	& €	回び	ᇫ	>	۾	้	ວິ ຕິ						୍ର	ပ	Ž	证	
				П	U-		SM	Silty Sand, d	lark yellowish brown (1	0YR 4/6), medium o	dense to	dense, moist,		10	30	35	2
								concrete deb	oris, rootlets, no odor,	no staining [Fill]							
					-												
					1-												
					2-												
					_												
					3-												
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					4												
					4-												
×× -																	
∭ s					_												
								[See Trench	Log ISRA-HVS-2B-1 f	or lithology]							
					_												
					5-			Total Excava	ation Depth = 5.0 ft.								T
					_			Collected so	il sample S001 at 08:5	0 from excavation s	idewall.						
								Excavation b	packfilled 11-23-2009.								
					6-												
					_												
					7-												
					_												
					8-												
					_												
					9-												
					-												
					-												

	WW								Boring ID: HZE								
Borehole	Diam.	(in.): 2	<u> </u>		То	tal Dep	th (ft): 5	5.5	Project: SSFL ISRA	Sampling - Outfall							
Northing (ft):	2668	395.75		Ea	sting (f	t): 1796	6185.37	Job Number: 1891614	•	Si	te: Happy Valley So	uth -	HVS	-2B-2	2	
Orill Start	Date:	09-0	3-2009	9	Sta	art Time	e: NR		Logged By: A. Gold	enberg	Re	eviewed By: S. Vale	nzuel	a, P	G.		
Orill Finish	n Date:	09-0	3-2009	9	Fir	nish Tin	ne: NR		Drilling Contractor: En	virosolve	Fi	eld Instrumentation:	N/A				
Depth 1st	H ₂ O (f	t):		N/A	Da	ate / Tin	ne: N/A		Drill Rig Type/Method:	Grab (hand sampl	ing)						
Depth H ₂ 0) After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not a	oplicable							
Comment	s: Rip	-rap ro	ock at	surfa	ace					Well Comp. Date:	N/A	Completion	Time	e: I	N/A		
Samplers	Gra	b sam	nole co	ollect	ted in 6	6-inch s	stainless	s steel sleeve		Soil Backfill Date:		Backfill Tim	e:	-	N/A		
															% o	f So	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		1	Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
					1— 2— 3—		SM	Silty Sand, d rootlets, no d	lark yellowish brown (1 odor, no staining [Fill]	OYR 4/4), medium d	ense, c	ry to moist,	5	5	20	30	
S					4— - 5—		SM	yellow (10YF	rith Gravel, mottled dark R 6/6), dense, moist, fir les diameter, trace deb Fill]	e to coarse subang	ular to	subrounded gravel	15	5	25	30	2
					-			Total Depth	= 5.5 ft				+				+
					6-			Collected so	il samples S001 and S	001-RWQCB at 08:	03 from	excavation floor.					
					•			Excavation h	oackfilled 11-23-2009.								
								LXCavation	Jackillica 11-25-2005.								
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					7												
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	D:-	\ C			Π_	4-15	41- 750 -		Desirate OCT IST		0.4						_
Borehole							th (ft): 3			A Sampling - Outfall 00							_
lorthing (39.33				t): 1796		Job Number: 189161			ppy Valley Sοι				2	—
orill Start			3-2009				e: NR		Logged By: A. Gold	-		d By: V. Vatha		in, P	G.		
orill Finish							ne: NR		Drilling Contractor: E		•	rumentation:	N/A				
epth 1st		•		N/A			ne: N/A			Grab (hand sampling	1)						_
epth H ₂ C						ate / Tin	ne: N/A		Driller's Name: Not a								
Comment										Well Comp. Date: N/		Completion	Time		I/A		
	Gra	b sam	ple co	ollect	ed in (6-inch	stainless	steel sleeve		Soil Backfill Date: N	<u>'A</u>	Backfill Tim			I/A		
Sample interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand 's	Med. Sand	Fine Sand	
s s	E C	ВО		^	0- 1-	9	SM	Silty Sand, li bioturbation	ight yellowish brown (1 observed, roots and ro	0YR 6/4), loose to med potlets, no odor, no stair	ium dense, ning [Fill]	dry,	5	15	25	20	
					_	21:1:1:		Sandstone [Chatsworth Formation	1							+
					2-												
					_												
					3			Total Excava	ation Depth = 3.0 ft.								T
					-			Collected so sidewall.	oil samples S001 and S	6001-RWQCB at 08:18	from excav	ation					
					4-			Excavation b	backfilled 11-23-2009.								
					5-												
					-	_											
					6-												
					7-												
					8-												
					9-												
					-	-											

	ИW							Boring ID: HZET0502					
Borehole							oth (ft): 4	, ,					
Northing (384.84				t): 1796					2	
Orill Start			3-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vathan		1, P.	G.		
Orill Finish							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation: N /	Α				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0					Da	ate / Tir	ne: N/A	Driller's Name: Not applicable					
Comment								Well Comp. Date: N/A Completion T	me:		I/A		
	Gra	b sam	ple co	ollect	ted in	6-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Time:			I/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description		Coarse Sand	Med. Sand	Fine Sand	oil
San Reta San	Rec (%)	Sou	G G	Wat	O Dep	Gra	Clas	Silty Sand, yellowish brown (10YR 5/4), medium dense, dry to moist, few rootlets,	5 Gravel	Coa	Wed	30	
						-	SIVI	no odor, no staining [Fill]	5	5	20	30	4
					1-		GP	Poorly Graded Gravel, subrounded gravel 3/4 inch to 1-1/4 inches diameter, between layers of filter fabric above and below	100				
					2-		SM	yellow (10YR 6/6), dense, moist, fine to coarse subangular to subrounded gravel	15	10	25	20	;
s	s		3-			to 2 inches diameter, asphalt debris observed, no odor, no staining [Fill]							
	s					-		Total Depth = 4.0 ft. Collected soil samples S001 and duplicate D001 at 09:45 from excavation floor. Excavation backfilled 11-23-2009.					
					5-								
					6-	-							
					7-	-							
					8-	-							
					9-	-							
					10-	1							

	MW								Boring ID: HZ I		<u> </u>							
Borehole							th (ft): 4			RA Sampling	ı - Outfall (
Northing (382.94				t): 179 0		ob Number: 1891				Happy Valley So				2	_
Drill Start			3-2009				e: NR		ogged By: A. Go	_			wed By: V. Vatl		in, P	.G.		
Drill Finis							ne: NR		Orilling Contractor:				nstrumentation:	N/A				
Depth 1st				N/A			ne: N/A		orill Rig Type/Metho		nd samplir	ıg)						
Depth H ₂ 0							ne: N/A	D	Oriller's Name: No									
Comment											np. Date: I		Completion	n Time		N/A		
Samplers	: Gra	b san	ple co	ollec	ted in (6-inch	stainless	steel sleeve		Soil Back	fill Date: I	N/A	Backfill Tir			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	© USCS Soil ⊠ Classification	Cit. Cond. vol.	Wasiah kasasa (40)	Descriptio		d	14 Guy A	Gravel	Sand	Med. Sand	So Fine Sand	
⊗ s					1 2 3		ЭМ	coarse subrou no staining [Fi	ellowish brown (10Y unded gravel to 1-1 ill]	/2 inches dia	meter, root	s and roo	tlets, no odor,	5		30		
					4-			Total Excavati	tion Depth = 4.1 ft.									1
					-				sample S001 at 10	:10 from exc	avation sid	ewall.						
								Excavation ba	ackfilled 11-23-2009	9								
					5-				2000									
					6-	-												
					-													
					7	-												
					8-	-												
					-	-												
					9-	-												
					10-													

	MW				1_	-4-15	41- 750	Boring ID: HZET0504						
Borehole							th (ft): 3	Project: SSFL ISRA Sampling - Outfall 008 Are						_
Northing (373.45				t): 1796		: Happy Valley Sou				2	
Drill Start						tart Time			iewed By: V. Vatha		in, P	.G.		
Drill Finisl						nish Tin			d Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)						
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	D	ate / Tin	ne: N/A	Driller's Name: Not applicable						
Comment	s: Rip	-rap a	t surfa	ace				Well Comp. Date: N/A	Completion	Time	e: 1	N/A		
Samplers	: Gra	b san	ple co	ollect	ted in	6-inch	stainless	eel sleeve Soil Backfill Date: N/A	Backfill Time	e:	1	N/A		
ka							_					% o	f So	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description		Gravel	Coarse Sand	Med. Sand	Fine Sand	Sil+/Clay
					U-		SM	Silty Sand, dark yellowish brown (10YR 4/4), medium dense, dr no odor, no staining [Fill]	y, rootlets,	5	5	20	30	4
					1-		GP	Poorly Graded Gravel, subrounded gravel 3/4 inch to 1-1/4 inch between layers of filter fabric above and below	es diameter,	100				
				2-		SM	Silty Sand with Gravel, dark yellowish brown (10YR 4/4) to light (10YR 6/4), dense, moist, fine to coarse subangular gravel to 3 asphalt and glass debris observed, no odor, no staining [Fill]		20	10	30	10	30	
s	S				3-	_								
					•			Total Depth = 3.5 ft.						
					4-			Collected soil sample S001 at 10:00 from excavation floor. Excavation backfilled 11-23-2009.						
					5-	-								
					6-									
					7-									
					8-									
					9-	-								
					10-									

	WW				1.				Boring ID: HZE		••						
Borehole							th (ft): 6			Sampling - Outfall							
Northing (ft):		380.44				t): 179 6	6170.07	Job Number: 1891614		Si	te: Happy Valley Sou	ıth -	HVS	-2B-2	2	
Orill Start	Date:	09-0	3-200	9		art Time		L	Logged By: A. Gold	enberg	Re	eviewed By: V. Vath	anas	in, P	.G.		
Orill Finish	n Date:	09-0	3-200	9	Fir	nish Tin	ne: NR]	Drilling Contractor: En	virosolve	Fie	eld Instrumentation:	N/A				
Depth 1st	H₂O (f	t):	l	N/A	Da	ite / Tin	ne: N/A	[Drill Rig Type/Method:	Grab (hand sampl	ing)						
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ite / Tin	ne: N/A	1	Driller's Name: Not a	pplicable							
Comment	s: Soi	l and p	oossik	ole rij	p-rap a	t surfa	се			Well Comp. Date:	N/A	Completion	Time	e: I	N/A		
Samplers	Gra	b sam	ple co	ollect	ted in 6	S-inch s	tainless	s steel sleeve		Soil Backfill Date:	N/A	Backfill Tim	e:	1	N/A		
<u>.</u>							_						1	Est.	% o	f So	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		ι	Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	Cil+/Clay
n er o	೭೮	m O	Δ.	>	_0_	Ö	SM	0.11 0 1 1	ark yellowish brown (1	2)(D 4/4)			5	5	≥	25	
					1— 2— 3— 4—			gravel, roots	and rootlets, no odor,	no staining [Fill]			5	10	30	20	3
s					5-		SM	Silty Sand wi yellow (10YR no odor, no s	ith Gravel, mottled dark R 6/6), dense, moist, su staining [Fill]	s yellowish brown (1 bangular gravel, m	0YR 4/4 etal deb	4) to brownish ris (pipe) observed,	15	10	25	20	3
					6-			Total Depth =	= 6.0 ft				-				\vdash
					_			Collected soi	il sample S001 at 09:50	from excavation fl	oor.						
								Excavation h	ackfilled 11-23-2009.								
					_												
					7-												
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					8-												
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					9												
					9-												
					-												
1			1		10-										1		

∰ MW			T	41- 750		ID: HZE		200.6						_
orehole Diam. (pth (ft): 4			A Sampling - Outfall (_
orthing (ft):	266864.7			(ft): 1796		ber: 189161			ppy Valley Sou				2	_
rill Start Date:	09-03-200			ne: NR	Logged I		denberg		d By: S. Vale		ıa, P	.G.		_
rill Finish Date:				me: NR		ontractor: E			trumentation:	PID				_
epth 1st H ₂ O (ff	-	N/A		me: N/A			: Grab (hand sampli	ng)						_
epth H ₂ O After				me: N/A	Driller's I	lame: Not								_
omments: Soil							Well Comp. Date:		Completion			N/A		
	sample o	collected	in 6-inch	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			N/A		
90			_	ion								% of	f So	il T
Retained Sample Type Recovery (%)	Blow Count/6" PID (ppm)	Water Level	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
			1-		[See Trench Log ISR	A-HVS-2B to	r lithology]							
s	0.0		3- 4- 5- 6-	SM	yellow (10YR 6/6), de Total Depth = 4.1 ft.	ense, moist, s	rk yellowish brown (10 subangular gravel, no o	odor, no stai	rownish ning [Fill]	15	10	25	20	
			7-8-9-											

	VIW							Boring ID: HZET0507					
Borehole							th (ft): 3						_
Northing (869.40				t): 1796					2	
Drill Start			3-200				e: NR	Logged By: A. Goldenberg Reviewed By: V. Va		in, F	P.G.		
Drill Finish	n Date:	09-0	3-200	9	Fi	nish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation	N/A				
Depth 1st		-		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ C							ne: N/A	Driller's Name: Not applicable					
Comment								· · · · · · · · · · · · · · · · · · ·	n Tim		N/A		
	Gra	b sam	ple c	ollec	ted in	6-inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill T			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand		Fine Sand	
∑ s					1- 2- 3-		SM	Silty Sand, dark yellowish brown (10YR 4/4), medium dense, dry to moist, subangular to subrounded gravel, rootlets, asphalt debris observed, no odor, no staining [Fill]	10	5	25	30	3
							SM	Silty Sand with Gravel, yellowish brown (10YR 5/6), dense, moist, subangular to subrounded gravel, no odor, no staining [Fill]	15	5	20	30	3
								Total Excavation Depth = 3.8 ft.		\vdash			+
					4-			Collected soil sample S001 and MS/MSD at 09:15 from excavation sidewall.					
					-	-		Excavation backfilled 11-23-2009.					
					5-	-							
					6-	_							
					7-								
					8-	_							
					-	-							
					9-	-							
					10-								

₩ MV				Π_	4-15	41- 750		Boring ID: HZE		.00.4						
Borehole Diam						oth (ft): 4			A Sampling - Outfall 0							_
Northing (ft): 266911.23 Easting (ft): 1796187.23 Job Number: 1891614 Site: Happy Valley Drill Start Date: 09-29-2009 Start Time: NR Logged By: A. Goldenberg Reviewed By: V. V. Drill Finish Date: 09-29-2009 Finish Time: NR Drilling Contractor: Envirosolve Field Instrumentation															2	
							I		-				in, P	.G.		
								•			rumentation:	N/A				
										10						
											Completion			1/A		_
	rab san	iple co	ollect	ed in (6-inch s	stainless	s steel sleeve		Soil Backfill Date: N	N/A	Backfill Tim			1/A		
Sample Interval Retained Sample Type Recovery	Blow Count/6"	PID (ppm)	Water Level	- 0 Depth (feet)	Graphic Log	USCS Soil Glassification	moist, subar [Fill]	vith Gravel, yellowish bi ngular to subrounded g	gravel, slightly clayey fi	ium dense to nes, no odo	o dense, r, no staining	15 Gravel	t. Coarse Sand	20 Med. Sand	20 Fine Sand	0:14/0101
	[See Trench Log ISRA-HVS-2B for lithology] 4 Total Excavation Depth = 4.0 ft. Collected soil sample S001 at 09:00 from excavation sidewall. Excavation backfilled 11-23-2009.															
				5 6	-											
				8-	-											
				9	-											

	MW				1_		11 /60 -		Boring ID: HZE								_
Borehole							th (ft): 2			A Sampling - Outfall (
Northing (99.09				t): 1796		Job Number: 189161			appy Valley So					_
Orill Start			1-2009				e: NR		Logged By: A. Gold	_		ed By: V. Vath		in, P	.G.		
Orill Finis							ne: NR		Drilling Contractor: E			strumentation:	N/A				_
Depth 1st		•		N/A			ne: N/A			: Grab (hand samplir	ng)						_
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not			T					
Comment	s: Soi l	with	brush	at s	urface					Well Comp. Date:		Completion	Time	e: 1	N/A		
	: Gra	b sam	ple co	ollect	ted in (6-inch	stainless	s steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ✓ Classification	Silty Sand, d	dark yellowish brown (Description 10YR 4/4), medium de	ense to dens	se, dry to	01 Gravel	Coarse Sand	Med. Sand	Fine Sand 6	
s					1			moist, subar	ngular gravel, roots an	d rootlets, no odor, no	staining [F	ilij					
	Tota					-		Total Depth	= 2.3 ft.								Γ
Collected soil samples S					il samples S001, S00	1-RWQCB, and D001	at 09:00 fro	m excavation									
					•			floor.									
					3-			Excavation b	oackfilled 11-30-2009.								
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					4												
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	ИW								Boring ID: HZE								_
Borehole							th (ft): 2			A Sampling - Outfall							_
Northing (00.10				t): 179 5		Job Number: 18916			lappy Valley So					—
Orill Start			1-2009				e: NR		Logged By: A. Gol	-		ved By: V. Vath		in, P	G.		
Orill Finish							ne: NR		Drilling Contractor: E			nstrumentation:	N/A				
Depth 1st		•		N/A			ne: N/A			: Grab (hand sampli	ng)						_
Depth H ₂ 0) After	Drillin	g (ft): N	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not								
Comment										Well Comp. Date:		Completion	Time		I/A		
	Gra	b sam	ple co	llect	ted in 6	6-inch s	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			I/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Silty Sand v	vellowish brown (10YF	Description R 5/4), medium dense	to dense d	rv to moist	g Gravel	Coarse Sand	% Med. Sand 6	So Pine Sand	
s					1		SM	subangular ç	gravel, roots and root	R 5/4), medium dense lets, no odor, no stainii	to dense, d	ry to moist,	5	10	30	25	
										Γ							
Collected soil sample S001 at 10:40 from excavation floor.																	
					•			Evenuation b									
					3-	1		Excavation b	backfilled 11-30-2009								
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	MW								Boring ID: HZET							
Borehole							th (ft): 6			Sampling - Outfall 00						
Northing (999.25				t): 1795		Job Number: 1891614		Site: Happy Valley So					
Orill Start			1-200				e: NR		Logged By: A. Golde	-	Reviewed By: V. Vath	anas	in, P	.G.		
Orill Finisl	h Date:	09-2	1-200	9	Fi	nish Tin	ne: NR		Drilling Contractor: En	virosolve	Field Instrumentation:	N/A				
Depth 1st	H ₂ O (f	t):		N/A	Da	ate / Tin	ne: N/A		Drill Rig Type/Method:	Grab (hand sampling)					
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not ap	plicable						
Comment	s: Soi	with	brush	at s	urface					Well Comp. Date: N/	A Completion	Time	e: 1	N/A		
Samplers	: Gra	b sam	ple co	ollec	ted in (6-inch s	stainless	steel sleeve		Soil Backfill Date: N/	A Backfill Tin	ne:	1	N/A		
<u>a</u>							_							% o	f So	il_
Sample Interval Retained Sample Type				<u>-</u>	Ð	og	USCS Soil Classification						Sand	_		
	Recovery (%)	÷0	PID (ppm)	Water Level	Depth (feet)	Graphic Log	Soil		D	escription			Sa	Med. Sand	Fine Sand	١,
	8	, E	d)	<u> </u>	Ē	jë	SS					<u> </u>	Se	Š.	S	2
Sample Ir Retained Sample T	် မေ	Blow Count/6"	₽	ate	ebt	Z Z	SC las					Gravel	Coarse (ed	ine.	Silt/Clay
N E N	₹	в О	۵		_0_											
					·		SM	Silty Sand w	rith Gravel, light yellowis	h brown (10YR 6/4), do	ense, dry, angular to	15	10	25	20	30
								subangular (gravel, no odor, no stair	ing [Fili]						
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∭ s					2-											
						4 -										
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								[See Trench	Log ISRA-HVS-2C for	lithology]						
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					6-			Total Excava	ation Depth = 6.0 ft.							T
										004 DWOOD -1 00 07 1	ina na augari Mi					
					-			Collected so sidewall.	il samples S001 and S0	10 1-RVVQCB at 09:05 f	rorn excavation					
								Excavation b	oackfilled 11-30-2009.							
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	ИW								Boring ID: HZE								_
3orehole							th (ft): 2			A Sampling - Outfall 0							
Northing (07.23				t): 179 5		Job Number: 18916			appy Valley Sou					
Orill Start			1-2009				e: NR		Logged By: A. Gol	-	I	ed By: V. Vath		in, P	G.		
Orill Finish							ne: NR		Drilling Contractor: E			strumentation:	N/A				
Depth 1st				N/A			ne: N/A			: Grab (hand samplin	g)						_
Depth H ₂ C) After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not								
Comment										Well Comp. Date: I		Completion	Time		I/A		
	Gra	b sam	ple co	ollect	ted in (6-inch s	stainless	steel sleeve		Soil Backfill Date:	I/A	Backfill Tim			I/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Silty Sand v	vellowish brown (10VE	Description	iet eubang	ular to	Gravel	Coarse Sand	Med. Sand	Fine Sand	.0711.0
S					1		SM	subrounded	gravel, roots and root	95/4), dense, dry to mo lets, no odor, no stainii	ist, subang g [Fill]	ular to	10	10	25	20	3
					_			Total Depth	= 2.3 ft.								
								Collected so	oil sample S001 at 10:	50 from excavation floo	r.						
					•			Everyation h	backfilled 11-30-2009.								
					3	1		Excavation	Dackilled 11-30-2009.								
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	MW								Boring ID: HZE								_
	e Diam.						th (ft): C		_	A Sampling - Outfall							_
lorthing			34.82				t): 179 !		Job Number: 1891614			py Valley Sou					
	t Date:					art Time			Logged By: A. Gold			By: V. Vatha		n, P	G.		
	sh Date		1-2009	9	Fin	ish Tin	ne: NR		Drilling Contractor: Er			umentation: N	N/A				
	st H ₂ O (N/A			ne: N/A		Drill Rig Type/Method:		ing)						_
epth H	₂ O Afte	r Drillin	g (ft): I	N/A	Da	te / Tin	ne: N/A		Driller's Name: Not a								
commer	nts: So i	il with	grass	and	brush	at surf	ace			Well Comp. Date:		Completion	Time		I/A		
ampler	s: Gra	ab sam	ple co	ollect	ted in 6	inch s	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Time			I/A		
Retained Sample Type		Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
S							SM	Silty Sand, o	dark yellowish brown (1	0YR 4/4), loose, dry	, subangular to	o otoining _	10	5	25	30	3
								[Colluvium]	I gravel up to 1 inch dia	imeter, roots and roo	ueis, no odor, r	io staining					
					1			Total Depth	= 0.2 ft.								
								Collected	oil sample S001 at 11:0	18 from excavation of	dewall						
	1				1-				·	o nom excavation si	acwaii.						
	1							Excavation	backfilled 11-30-2009.								
	1				4												
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	MW Diam		,			tal D -	th /#\· ·	Boring ID: HZET0605	000 Area					
Borehole							th (ft): 4	Project: SSFL ISRA Sampling - Outfall 0						
Northing ()49.62				t): 179		Site: Happy Valley Sou					
Drill Start			1-2009			art Time		Logged By: A. Goldenberg	Reviewed By: V. Vath		in, P	.G.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve	Field Instrumentation:	N/A				
Depth 1st	H ₂ O (f	t):		N/A	Da	ate / Tin	ne: N/A	Drill Rig Type/Method: Grab (hand samplin	ng)					
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A	Driller's Name: Not applicable						
Comment	s: Soi	with	brush	at s	urface			Well Comp. Date:	N/A Completion	Time	e: I	N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in (6-inch s	stainless	eel sleeve Soil Backfill Date: I	N/A Backfill Tim	e:	ı	N/A		
terval 'pe							USCS Soil Classification	Description		I		% of		
Sample Interv Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log		•		Gravel	Coarse Sand	Med. Sand	Fine Sand	Silt/Clay
s s					1-		SM	Silty Sand with Gravel, brownish yellow (10YR 6/6), med subangular to subrounded gravel, trace cobbles, no odor Colluvium] See Trench Log ISRA-HVS-2C for lithology]	fium dense, dry to moist, r, no odor, no staining	20	10	25	15	30
					2-									
					3-									
					4-			Fotal Excavation Depth = 4.0 ft.						
					-	-		Collected soil sample S001 at 11:00 from excavation sidexcavation backfilled 11-30-2009.	lewall.					
					5-									
					6-									
					7-									
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					10-									

	MW				<u> </u>			Boring ID: HZET0700					
Borehole		(in.): 2	!				th (ft): 3						
Northing	(ft):		95.25				t): 179 5						
Drill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vatl		in, P	.G.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st		_		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ 0						ite / Tin	ne: N/A	Driller's Name: Not applicable					
Comment								Well Comp. Date: N/A Completion			N/A		
	: Gra	b sam	iple co	ollect	ted in 6	S-inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tir			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description [See Trench Log ISRA-HVS-3 for lithology]	Gravel	Sand	Med. Sand	Fine Sand	
					1— - 2—								
s					3	20000000000000000000000000000000000000	SM	Silty Sand, dark yellowish brown (10YR 4/4), medium dense, moist, rootlets, no odor, no staining [Colluvium] Total Depth = 3.5 ft. Collected soil sample S001 at 13:39 from excavation floor. Excavation backfilled 12-02-2009.		5	25	30	4
					5— -								
					6-								
					7 8-								
					9-								
					10								

	MW					4-1.5	41- (6) -		Boring ID: HZE		000 -						
Borehole							th (ft): 3		•	Sampling - Outfall							_
Northing			998.57				t): 179		Job Number: 1891614			e: Happy Valley So					
Drill Start							e: NR		Logged By: A. Gold	-		viewed By: V. Vath		in, P	.G.		
Drill Finis							ne: NR		Drilling Contractor: En			eld Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A		Drill Rig Type/Method:		ing)						_
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not a								
Commen	ts: Soi	l with	grass	at s	urface					Well Comp. Date:	N/A	Completion	Time	e: I	N/A		
Samplers	: Gra	b sam	ple co	ollec	ted in (6-inch s	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim	e:		N/A		
terval /pe				<u>ā</u>	ĵ.	go	- tion								% of		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	_	Med. Sand	Fine Sand	
S					- 1–		SM	no odor, no	dark brown (10YR 3/3), staining [Colluvium] n Log ISRA-HVS-3 for lit		ist, roots	s and rootlets,	10	5	25	35	25
					2- - 3-			Total Excav	ation Depth = 3.3 ft.								
					-	1			oil sample S001 at 13:34	1 from execution si	dowall						
								Collected Sc	on sample 3001 at 13.34	+ IIOIII EXCAVALIOII SI	uewaii.						
					4-			Excavation I	backfilled 12-02-2009.								
					5-												
					6-	-											
					7-												
					8-	-											
					9-	-											
					10-												

	ИW								Boring ID: HZE								—
Borehole [in.): 2					th (ft): 3		Project: SSFL ISRA	A Sampling - Outfall 0							_
Northing (1	t):	2669	80.37		Ea	sting (f	t): 1795	5576.56	Job Number: 189161		Site: Happy	/ Valley Sou	ıth - I	HVS	-3		_
Orill Start I	Date:	09-2	4-2009)			e: NR		Logged By: A. Gold	-	Reviewed By	y: V. Vatha	ınasi	in, P	.G.		
Orill Finish	Date:	09-2	4-2009)	Fir	nish Tin	ne: NR		Drilling Contractor: E	nvirosolve	Field Instrum	nentation:	N/A				_
Depth 1st				N/A			ne: N/A			Grab (hand samplin	g)						_
Depth H ₂ C						ite / Tin	ne: N/A		Driller's Name: Not a								
Comments										Well Comp. Date: N		Completion			N/A		
	Gra	b sam	ple co	llect	ted in 6	3-inch	tainless	steel sleeve		Soil Backfill Date: N	I/A	Backfill Time			N/A		_
Sample interval Retained Sample Type	very	1,6"	(mdc	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description				Coarse Sand	Med. Sand	Fine Sand	
Sample II	Recovery (%)	Blow Count/6"	PID (ppm)	Wate	Dept	Grap	USCS						Gravel	Coar	Med.	Fine	
					1-			See Trenc	th Log ISRA-HVS-3 for I	ithologyJ							
					2-												
S s					3-		SM	subrounded	dark yellowish brown (1 d gravel, roots and rootl	10YR 3/4), medium der lets, no odor, no stainir	nse, moist, suba ng [Colluvium]	angular to	5	5	25	35	3
					4				vation Depth = 3.5 ft. oil sample S001 at 13:4	12 from excavation side	ewall.						
					-			Excavation	backfilled 12-02-2009.								
					5—												
					6-												
					7 —												
					-												
					8-												
					9-												
					3 —												
																	1

Septiments: Samplers: Cockery 26 ate: 09 Date: 09 DO (ft): After Drill Soil with	66986.61 9-24-2009 9-24-2009 ling (ft): I	9 N/A N/A and bi	Easti Start Finis Date Date rush at d in 6-in	Time: h Time: / Time: / Time: surface nch stai	1795593. NR NR N/A N/A nless stee	.36	Project: SSFL ISRA Job Number: 1891614 Logged By: A. Gold Drilling Contractor: Er Drill Rig Type/Method: Driller's Name: Not a	enberg virosolve Grab (hand sampling	Site: Happy Valley So Reviewed By: V. Vath Field Instrumentation:	anas				
rill Start Dat rill Finish Da epth 1st H ₂ C epth H ₂ O Af omments: S amplers: C	ete: 09 Date: 09 DO (ft): After Drill Soil with Grab sa	9-24-2009 9-24-2009 ling (ft): I	9 N/A N/A and bi	Start Finis Date Date rush at d in 6-ir	Time: h Time: / Time: / Time: surface nch stai	NR NR N/A N/A nless stee		Logged By: A. Gold Drilling Contractor: Er Drill Rig Type/Method:	enberg virosolve Grab (hand sampling	Reviewed By: V. Vath Field Instrumentation:	anas			
rill Finish Da epth 1st H ₂ O epth H ₂ O Af omments: \$ amplers: C	oate: 09 oo (ft): After Drill Soil with	ling (ft): I	9 N/A N/A and bi	Date Date rush at d in 6-in	h Time: / Time: / Time: surface	NR N/A N/A nless stee		Drilling Contractor: Er Drill Rig Type/Method:	virosolve Grab (hand sampling	Field Instrumentation:		in, P	.G.	
epth 1st H ₂ O epth H ₂ O Af omments: S amplers: C	o (ft): After Drill Soil with Grab sa	ling (ft): I	N/A N/A and bi	Date Date rush at d in 6-in	/ Time: / Time: surface nch stai	N/A N/A nless stee		Drill Rig Type/Method:	Grab (hand sampling		N/A			
epth H ₂ O Af omments: S amplers: C	Soil with	ling (ft): I	N/A and bi	Date rush at d in 6-in	/ Time: surface nch stai	N/A nless stee				<u>) </u>				
omments: Samplers: C	Soil with	th grass ample co	and bi	rush at d in 6-ii	surface	nless stee		Driller's Name: Not a						
amplers: C	Grab sa	ample co	ollected	d in 6-iı	nch stai	nless ste	el sleeve							
ed							el sleeve		Well Comp. Date: N/				N/A	
Retained Sample Type Recovery	(%) Blow	Count/6" ID (ppm)	Level	et)					Soil Backfill Date: N/	A Backfill Tin			N/A	
		<u> </u>	Water Level	Depth (feet)	Graphic Log	Classification			Description		Gravel	Sand	Med. Sand	Fine Sand
s				1-		Si	andstone,	n Log ISRA-HVS-3 for li yellowish brown (10YR [Chatsworth Formation]	5/4-5/6), weathered, ve	ery hard, no odor,				
				2-										
				3-		То	otal Excava	ation Depth = 3.3 ft.						
						C	ollected so	oil sample S001 at 13:4	5 from excavation sidev	vall				
									o nom oxoavation olaev	· can.				
				5—		E	xcavation i	backfilled 12-02-2009.						
				-										
				6-										
				7-										
				8-										
				9-										

	MW				Π_		u /#:> -	Boring ID: HZET0704					_
Borehole							th (ft): 3						_
Northing (964.45				t): 179 5						_
orill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
rill Finis			4-2009	9			ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
epth 1st		•		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
epth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A	Driller's Name: Not applicable					
Comment	ts: Soi l	with	grass	at sı	urface			Well Comp. Date: N/A Completion	Time		N/A		
	: Gra	b sam	ple co	ollect	ted in (6-inch s	tainless	steel sleeve Soil Backfill Date: N/A Backfill Tim			N/A		
Sample interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description		Sand	Med. Sand	Fine Sand	
Reta Sam	Rec (%)	Blov	吕	Wat	O Dep	Grap	USC	70 T 11 1000 1000 1000 1000 1000 1000 10	Gravel	Coa	Med	Fine	-
					-			[See Trench Log ISRA-HVS-3 for lithology]					
s					1- - 2-		SM	Silty Sand with Gravel, light yellowish brown (10YR 6/4), dense, dry to moist, angular to subrounded gravel and cobbles, roots and rootlets, no odor, no staining [Fill]	15	5	35	25	2
					-			[See Trench Log ISRA-HVS-3 for lithology]					
					3-			Total Excavation Depth = 3.0 ft.					t
								Collected soil cample \$001 at 12:47 from executation cidewall					
					-	-		Collected soil sample S001 at 13:47 from excavation sidewall.					
								Excavation backfilled 12-02-2009.					
					4								
					•								
					_								
					5-								
					-								
					6-								
					7-	_							
					-								
					8-								
					-								
					9-								
					-								

<u>w</u>	_	MW				1_	4-15	41- 760	Boring ID: HZET0705					_
		Diam.					_	th (ft): 4						_
North				70.17				t): 1795						_
		Date:		4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V.		sin, F	.G.		_
		n Date:						ne: NR	Drilling Contractor: Envirosolve Field Instrumentati	n: N/A				_
		H₂O (f			N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
) After					ite / Tir	ne: N/A	Driller's Name: Not applicable					_
						urface				etion Tim		N/A		_
	lers:	Gra	b sam	ple co	ollect	ted in 6	3-inch	stainless	teel sleeve Soil Backfill Date: N/A Backfi	Time:		N/A		_
nterval I	Гуре	>	_	<u>-</u>	svel	et)	Log	oil ation			_		f Soi	
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
						0-			[See Trench Log ISRA-HVS-3 for lithology]					_
						-								ì
						1								ı
						-								1
						2-								1
						-								1
						3-								
**						_	1506/460-855	014		4.0		0.5	0.5	ı
	s					4		SM	Silty Sand, dark yellowish brown (10YR 3/6), medium dense, moist, rootlets, no odor, no staining [Colluvium]	10	5	25	35	
						•			Total Depth = 4.0 ft. Collected soil sample S001 at 13:15 from excavation floor.					ı
						_			Excavation backfilled 12-02-2009.					ı
						5-								Ì
						6								1
						_								l
						7								1
						_								1
						8								1
						-								1
						9								
						_								

	ΜW								Boring ID: HZE								
Borehole							th (ft): 3			Sampling - Outfall (_
Northing (954.93				t): 1795		Job Number: 189161			opy Valley Sou					
Drill Start			4-2009				e: NR		Logged By: A. Gold	_		By: V. Vatha		in, P	.G.		
Orill Finish							ne: NR		Drilling Contractor: E			rumentation: I	N/A				
Depth 1st				N/A			ne: N/A		Drill Rig Type/Method:		ng)						
Depth H ₂ C					•	te / Tin	ne: N/A	I	Driller's Name: Not a								_
Comment										Well Comp. Date: I		Completion			N/A		
	Gra	b sam	iple co	ollect	ed in 6	inch s	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Time			N/A		-
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		J	Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
					1				Log ISRA-HVS-3 for I								
s					3- 4- 5-	200000000 2000000000 20000000000000000	SM	Total Depth : Collected soi	lark yellowish brown (1 and rootlets, no odor, = 3.8 ft. il sample S001 at 11:2 packfilled 12-02-2009.	no staining [Colluviur	n] 	ubangular	10	5	25	35	2
					6-												
					7 8- 9												
					10-												

	MW				7_	4-15	41- 760	Boring ID: HZET0707					—
Borehole							th (ft): 3				_		
Northing (43.20				t): 1795						
Orill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Orill Finisl							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0					•		ne: N/A	Driller's Name: Not applicable					
Comment			•					Well Comp. Date: N/A Completion	Time		N/A		
	: Gra	b sam	ple co	llect	ed in 6	6-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tin			N/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
								[See Trench Log ISRA-HVS-3 for lithology]				_	
s s					2-		SM	Silty Sand with Gravel, light yellowish brown (10YR 6/4) to pale brown (10YR 6/3), medium dense, dry to moist, gravel and cobbles, no odor, no staining [Fill]	15	5	25	30	
					3			[See Trench Log ISRA-HVS-3 for lithology]					
								Total Excavation Depth = 3.0 ft.					
					_			Collected soil sample S001 at 11:10 from excavation sidewall.					
								Excavation backfilled 12-02-2009.					
					4	1							
					-	-							
					5-								
					_								
					6-								
					7—								
					8-								
					-								
					9-								
					10								

W	MV				<u> </u>			Boring ID: HZET0708					_
	le Diam						th (ft): 3						
Northin	g (ft):	2669	948.90		Ea	sting (f	t): 1795	27.82 Job Number: 1891614 Site: Happy Valley Sou	th - I	HVS	-3		_
	art Date:		4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vatha	nasi	n, P	G.		
Orill Fir	ish Date	e: 09-2	4-2009	9	Fin	ish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1	1st H ₂ O	(ft):		N/A	Da	te / Tin	ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth I	H₂O Afte	r Drillin	g (ft): I	N/A	Da	te / Tin	ne: N/A	Driller's Name: Not applicable					
Comme	ents: So	il with	grass	at sı	urface			Well Comp. Date: N/A Completion	Time	: N	I/A		
Sample	ers: Gr	ab san	iple co	ollect	ted in 6	inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill Time	e:	N	I/A		
									E	Est.	% of	So	il
Sample Interval Retained	Sample Type Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
R Se	% & %	88	믑	X	P _O	G	US Cla		Ş	ပိ	Æ	뜶	
				П	0-			[See Trench Log ISRA-HVS-3 for lithology]					†
					1- 2-								
	S				3-		SM	Silty Sand, dark yellowish brown (10YR 3/6), medium dense to dense, moist, no odor, no staining [Colluvium] Total Depth = 3.3 ft.		10	30	35	
					-								
								Collected soil sample S001 at 11:05 from excavation floor.					
					4-			Excavation backfilled 12-02-2009.					
					1								
					5-								
					6-								
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					8-								
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					9-								
				1	1				1	I	l		- [

	MW					4=1.0-	41- /£1\: 4		Boring ID: HZE		000 Au						—
Borehole							th (ft): 1			Sampling - Outfall			4.		_		_
Northing (983.23				t): 1795		Job Number: 1891614			py Valley Sou					
Drill Start			4-2009			art Time			Logged By: A. Gold			By: V. Vath		in, P	.G.		
Drill Finisl							ne: NR		Drilling Contractor: Er		<u> </u>	rumentation:	N/A				
Depth 1st				N/A			ne: N/A		Drill Rig Type/Method:		ing)						_
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not a								
Comment										Well Comp. Date:	N/A	Completion	Time		N/A		
	: Gra	b sam	ple co	ollect	ted in (6-inch s	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Oilt. Cond.		Description		de	Gravel	Coarse Sand	Med. Sand	Fine Sand	
S s					1-		SM	subangular (dark yellowish brown (1 gravel, roots and rootle ation Depth = 1.0 ft.	UYR 3/4), loose to m	iedium dense, ing [Colluvium]	dry,	5	5	25	35	3
								Collected so	oil sample S001 at 11:0	0 from excavation si	dewall.						
					-				backfilled 12-02-2009.								
								LXCavation	Dackilled 12-02-2009.								
					2-												
					_												
					3-	1											
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					4	1											
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					5-	1											
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					6-	1											
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					-												
					7-	1											
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					-	1											
					9-												
					3												
					-	1											
			l .	1 [10-	1							1	1	1		-1

Porch		/W					tal Dav	th (ft): 4		Boring ID: HZE Project: SSFL ISRA	Sampling - Outfall 0	NO A===						
Boreho								th (ft): 1						.41.		_		_
Northin				63.90				t): 179		Job Number: 1891614			ppy Valley So					
Orill Sta				5-2009				e: 07:1			ngardner · ·		d By: V. Vath		ın, P	.G.		
Orill Fir								ne: 07:1		Drilling Contractor: En			trumentation:	N/A				_
Depth 1			•		N/A			ne: N/A		Drill Rig Type/Method:		g)						_
Depth I								ne: N/A	•	Driller's Name: Not a								
Comme	ents							igh at su			Well Comp. Date: N		Completion			N/A		
Sample	ers:	Gra	b sam	ple co	llect	ed in 6	6-inch s	stainless	s steel sleeve		Soil Backfill Date: N	I/A	Backfill Tim			N/A		
ها ا	_							_						\square		% of	So	il_
Sample Interval Retained	Sample Type	Recovery (%)	, nt/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		ī	Description			<u> </u>	Coarse Sand	Med. Sand	Fine Sand	lav (
Sample In Retained	Sam	(%)	Blow Count/6") ala	Wate	Dept	Grap							Gravel	Coar	Med.		Silf/Clav
						-		SM	Silty Sand, t	orown (10YR 4/3), loose	e, dry, no odor, no stai	ning [Alluviu	um]			35	50	15
	s					1-		SP	moist, angul	ed Sand, yellowish brov lar sandstone fragments	vn (10YR 5/6), loose t s, no odor, no staining	o medium o [Alluvium]	lense, dry to	10	30	25	30	5
						2				oil samples S001, S001	SP, and S001-RWQC	B at 07:15 f	rom					
						2-			excavation f Excavation I	floor. backfilled 12-02-2009.								
						=												
						3-												
						-	-											
						4-												
						5-												
						6-												
						7-												
						-												
						8-												
						9-												
						-												

	MW				1_	4-1-0	4h /ft\ -		Boring ID: HZE		100 A						—
<u>Borehole</u>							th (ft): 3		•	A Sampling - Outfall 0		· · · · ·			_		—
Northing			57.79				t): 1795		Job Number: 189161			appy Valley Sou					_
Orill Start			4-2009				e: NR		Logged By: A. Gold	-		ed By: V. Vath		ın, P	.G.		
Orill Finis							ne: NR		Drilling Contractor: E			strumentation:	N/A				
Depth 1st		-		N/A			ne: N/A		Drill Rig Type/Method:		ıg)						_
Depth H ₂						te / Tin	ne: N/A		Driller's Name: Not a								
Commen										Well Comp. Date: I		Completion	Time		N/A		
	: Gra	b sam	ple co	ollect	ted in 6	inch s	stainless	steel sleeve		Soil Backfill Date: I	N/A	Backfill Tim			N/A		_
Sample Interval Retained Sample Type							_								% of	So	il
Sample Interv Retained Sample Type			•	<u>ē</u>	ef)	Graphic Log	USCS Soil Classification							Coarse Sand	٦	_	
Sample II Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	<u>ic</u> 1	So			Description			_	Ŝ	Med. Sand	Fine Sand	
를 함	8	≥Ę	d)	호	뒾	ph	SSi						Gravel	JE S	6	S	
Sar Sar	% %	86	읁	Nai) Je	Gra	Sla						Ga	ဂ္ဂ	Med	ءِ ا	
, _ 0,			_	-	_o_			ISee Trench	Log ISRA-HVS-3 for I	lithologyl			+	 	-	_	+
								loce trener	Log lotte-1100-5 lot i	iiti lology]							
					1-												
					4												
					2-												
					-												
×==					3-	ļ		_									
								Sandstone, [Chatsworth	pale brown (10YR 6/3)), weathered, hard, dry	, no odor, n	o staining					
S								Chaisworth	i i OilliauOIIJ								
					Ť			Total Depth	= 3.5 ft.								1
									oil sample S001 at 10:5	55 from everyotion for	or						
					4-			Collected St	on sample 300 r at 10:5	oo nom excavation 1100	JI .						
								Excavation	backfilled 12-02-2009.								
					7												
					5-												
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<u> </u>			Н						Boring ID: HZET0712					
		Diam. (oth (ft): 3						_
lorthi				40.62				t): 179 5						
		Date:		4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vati	anas	in, P	.G.		
		Date:						ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
		H₂O (f	•		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
) After					ite / Tin	ne: N/A	Driller's Name: Not applicable					
						urface			Well Comp. Date: N/A Completion			N/A		
	lers:	Gra	b sam	ple co	ollect	ted in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tir			N/A		
2	ø					_		u			_	% o	So	11
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
<u> </u>						_0			[See Trench Log ISRA-HVS-3 for lithology]				_	T
						_								
						1								
						_								
						2								
						_								
						3-		SM	Silty Sand, dark yellowish brown (10YR 4/6), medium dense, moist, rootlets,		5	25	25	
	S					_			no odor, no staining [Colluvium] Total Depth = 3.8 ft.					_
						4-			Collected soil sample S001 at 10:40 from excavation floor.					
						_			Excavation backfilled 12-02-2009.					
						5-								
						6								
						-								
						7-								
						_								
						8								
						-								
						9								
						-								

	MW								ng ID: HZE 1									
Borehole							th (ft): 3			Sampling - Outfall								
Northing			936.68				t): 179 5		lumber: 1891614			e: Happy Valle						
Orill Start	Date:	09-2	4-2009	9			e: NR	Logge	ed By: A. Golde	enberg	Re	eviewed By: V.	Vathar	ıasi	in, P	.G.		
Orill Finis	h Date	09-2	4-2009	9	Fir	nish Tin	ne: NR	Drillin	g Contractor: En	virosolve	Fie	eld Instrumentation	on: N	Α				
Depth 1st	: H ₂ O (f	t):		N/A	Da	ate / Tin	ne: N/A	Drill F	Rig Type/Method:	Grab (hand sampl	ing)							
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A	Drille	's Name: Not ap	plicable								
Comment	ts: Soi	l with	grass	at sı	urface					Well Comp. Date:	N/A	Compl	etion T	ime	e: 1	N/A		
Samplers	: Gra	b sam	iple co	ollect	ted in 6	6-inch s	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfil	II Time:		1	N/A		
<u>a</u>							_							E	Est.	% o	f So	il
be el				<u>_</u>	Ð	g	Ö								nd			
直교수	2	<u>.</u>	Ē	ě	<u>e</u> e	ا يّ ا	cat		г	Description					Sa	ng E	p	=
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		-					ē	Coarse Sand	Med. Sand	Fine Sand	Silt/Clay
eta am	စ္စိုင္ပ	§ 5	٥	ate	əpt	l ap	SC							Gravel)ar	ed.	ne	¥
8 2 8	& €	шç	颪	>	۾	้อ	≌ರ							Ō	ပ	Ž	证	Ü
					0-			[See Trench Log I	SRA-HVS-3 for lit	hology]								
					-	-												
					4													
					1-	1												
					-													
					2-]												
					2-													
					-	1												
					3-	<u> </u>												
					3-		SM	Silty Sand, dark y	ellowish brown (10	OYR 4/6), medium d	lense, n	noist, rootlets,			5	25	40	30
S								no odor, no stainii	ng [Colluvium]									
					_			Total Depth = 3.5	ft									\vdash
								•										
					4-			Collected soil sam	ple S001 at 10:35	from excavation flo	oor.							
					-			Excavation backfi	led 12-02-2009									
					-													
					5													
					•													
					_	1												
					6													
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	MW				1_			Boring ID: HZET0714					_
Borehole							th (ft): 2						—
Northing			31.79				t): 1795						_
Orill Start			4-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vatha		in, P	.G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation: N	I/A				_
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ite / Tin	ne: N/A	Driller's Name: Not applicable					_
Commen	ts: Soi	l with	grass	at su	urface			Well Comp. Date: N/A Completion	Time	e: N	N/A		
	: Gra	b sam	ple co	llect	ted in 6	3-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Time			N/A		
Sample interval Retained Sample Type							_		E		% of	So	il
Sample interv Retained Sample Type			_	<u></u>	£	Graphic Log	USCS Soil Classification			Coarse Sand	-	_	
ed E	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	C	Soi	Description		Š	Med. Sand	Fine Sand	
Sample II Retained Sample T	8	ĭ ×	<u>a</u>	ē	ŧ	phi	Sif	·	Gravel	rse	S	Š	
Set () % %	<u>Š</u> Š	ō	at	Эер	ra	JSC Slas		ìra	oa	Jec	<u>ii</u>	
) IE ()	E S	шО	п.	>	_0_	0	٥٠	10 T 1 1 10DA 1 1/10 0 (1/1/1 1 1	_	0	_	ш.	+
								[See Trench Log ISRA-HVS-3 for lithology]					
					1-								
					2-								
~						la est est							
							SM	Silty Sand, dark yellowish brown (10YR 4/6), medium dense, moist, rootlets,		5	25	30	
S								no odor, no staining [Colluvium]					
×2						<u> </u>		Total Depth = 2.8 ft.					t
					3-								
								Collected soil sample S001 at 09:45 from excavation floor.					
					-			Excavation backfilled 12-02-2009.					
					4								
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	MW				1_				Boring ID: HZE								
Borehole							th (ft): 1			Sampling - Outfall							
Northing			04.77				t): 179		Job Number: 1891614			Happy Valley Sou					
Orill Start	Date:	09-2	4-2009)			e: NR		Logged By: A. Gold	-		ewed By: V. Vath		in, P	.G.		
Orill Finis							ne: NR		Drilling Contractor: En			Instrumentation:	N/A				
Depth 1st		•		N/A	Da	te / Tin	ne: N/A		Drill Rig Type/Method:	Grab (hand sampli	ng)						_
Depth H ₂	O After	Drilling	g (ft): N	N/A	Da	te / Tin	ne: N/A		Driller's Name: Not a	pplicable							
Commen	ts: Soi	l with	grass	at su	ırface					Well Comp. Date:	N/A	Completion	Time	e: N	N/A		
Samplers	: Gra	b sam	ple co	llect	ed in 6	3-inch s	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim	e:	1	N/A		
rerval rpe				<u>-</u>	Đ	60	tion								% of		ı
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	0:11:0		Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	Silt/Clay
S					_		SM	moist, rootle	dark yellowish brown (1) ts, no odor, no staining Log ISRA-HVS-3 for li	[Colluvium]	eaium ae	ense, ary to	10	5	30	25	3
					1-			Total Excava	ation Depth = 1.3 ft.								
					-				•		,						
								Collected so	oil sample S001 at 13:3	rrom excavation sid	iewall.						
					2-			Excavation t	backfilled 12-02-2009.								
					_												
					3-												
					_												
					4-												
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	MW						,,		Boring ID: HZE								
Borehole							oth (ft): 1			Sampling - Outfall							
Northing (001.19				t): 179		Job Number: 1891614			e: Happy Valley Sou					
Drill Start			4-2009				e: NR		Logged By: A. Gold	-		viewed By: V. Vath		in, P	.G.		
Drill Finish							ne: NR		Drilling Contractor: En		-	ld Instrumentation:	N/A				
Depth 1st		-		N/A			ne: N/A		Drill Rig Type/Method:		ing)						
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not a								
Comment	s: Soi	l with	grass	at sı	urface					Well Comp. Date:	N/A	Completion	Time	e: N	N/A		
	: Gra	b sam	ple co	ollect	ted in 6	6-inch	stainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Tim			N/A		
Sample Interval Retained Sample Type	, ry	<u>.</u>	m)	evel	feet)	c Log	USCS Soil Classification		ı	Description					% of		
Sample Interv Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log							Gravel	Coarse Sand	Med. Sand	Fine Sand	Silt/Clay
s					-		SM	and rootlets,	dark yellowish brown (1) no odor, no staining [0	Colluvium]	nedium (dense, dry, roots	5	5	30	25	3
					1-	-		[See Trench	Log ISRA-HVS-3 for li	tnologyj							
					_			Total Excava	ation Depth = 1.3 ft.								Т
								Collected so	oil sample S001 at 13:40) from excavation si	dewall						
					_				•								
					2-	1		Excavation b	packfilled 12-02-2009.								
					-	1											
					3-	-											
					_												
					4-	1											
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	MW							Boring ID: HZET0717					
Borehole							oth (ft): 2						_
Northing (72.40				t): 1795						_
Orill Start			5-2009				e: 07:2			in, P	G.		
Orill Finisl							ne: 07:3	-	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0							ne: N/A	Driller's Name: Not applicable					
Comment		_							Time		I/A		
Samplers	: Gra	b sam	ple co	ollect	ted in (6-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tim			I/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	il
						-	SP-SM	Poorly Graded Sand with Silt, brown (10YR 4/3), loose, dry, no odor, no staining [Alluvium]			30	60	1
s					2-		SW	Well Graded Sand, dark brown (10YR 3/3), medium dense to dense, dry to moist, no odor, no staining [Alluvium]		30	35	30	
- X								Sandstone, very pale brown (10YR 8/3), well indurated but rippable by excavator					Г
					-			[Chatsworth Formation]					T
								Total Excavation Depth = 2.5 ft.					
					3-			Collected soil samples S001 and S001-RWQCB at 07:25 from excavation sidewall.					
					-			Excavation backfilled 12-02-2009.					
					4-	-							
					5-	_							
					6-	_							
					7-	_							
					-	_							
					8-	_							
					9-	-							
					-								

Dorobolo Diam	(in \. ^	,		т.	tal Dar	th (#\: ^	Boring ID: HZET0718 Project: SSFL ISRA Sampling - Outfall 008 Area					—
Borehole Diam.						th (ft): 2				_		_
Northing (ft):		927.76				t): 1795						
Drill Start Date:		0-2009				: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		ın, P	.G.		
Drill Finish Date:						ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st H ₂ O (f	-		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H₂O After						ne: N/A	Driller's Name: Not applicable					
Comments: Soi							Well Comp. Date: N/A Completion	Time		N/A		
Samplers: Gra	b sam	ple co	llect	ed in 6	3-inch s	tainless	steel sleeve Soil Backfill Date: N/A Backfill Tim			N/A		
terval /pe	Blow Count/6"			Depth (feet)	Graphic Log	© USCS Soil	Description Silty Sand, dark brown (10YR 3/3), medium dense, moist, minor asphalt debris observed, no odor, no staining [Fill]	Gravel	Sand	% of Med. Sand	So Pine Sand	
				2-			[See Trench Log ISRA-HVS-3 for lithology]					
				-			Total Excavation Depth = 2.5 ft.					t
				•			Collected soil sample S001 at 13:15 from excavation sidewall.					
				3-			Excavation backfilled 12-02-2009.					
				4								

	MW				1.			Boring ID: HZET0719					_
Borehole							oth (ft): 2						_
Northing			31.74				ft): 1795						—
Orill Start			0-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vathan		ı, P.	G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation: N /	Α				_
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0					•		ne: N/A	Driller's Name: Not applicable					
							h at surfa		me:		/A		_
	: Gra	b sam	ple co	ollect	ted in 6	6-inch	stainless	steel sleeve Soil Backfill Date: N/A Backfill Time:			/A		_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description [See Trench Log ISRA-HVS-3 for lithology]		Coarse Sand ''	Med. Sand	Fine Sand So	
					- 1- -								
⊗ s					2-		SM	Silty Sand, brown (10YR 4/3), dense, moist, roots and rootlets, no odor, no staining [Colluvium]		10	25	35	
XX						Laner, Hea		Total Depth = 2.6 ft.					
					3-	-		Collected soil sample S001 at 13:35 from excavation floor.					
								Excavation backfilled 12-02-2009.					
					_			Excertation backlined 12 of 2000.					
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	1		1	1 1	10-	1	i l		- 1				

	MW				1_			Boring ID: HZET0720					_
Borehole							th (ft): 3						_
Northing			946.09				t): 1795						_
Orill Start			0-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vatha		n, P.	G.		
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st		•		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂							ne: N/A	Driller's Name: Not applicable					
							n at surfa		Time		I/A		
	: Gra	b sam	ple co	llect	ted in 6	inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill Time			I/A		_
interval d Type	y		(F)	evel	eet)	Log	oil	.	E		% of E		I
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	
					0-	_		[See Trench Log ISRA-HVS-3 for lithology]					T
					1								
					=		SM	Silty Sand, brown (10YR 4/3), dense, moist, rootlets, no odor, no staining [Colluvium]		10	20	35	;
S					3-			Total Depth = 3.0 ft.					-
					_			Collected soil sample S001 at 13:55 from excavation floor.					
								Excavation backfilled 12-02-2009.					
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	MW				1_		11 /** -	Boring ID: HZET0721					
Borehole							th (ft): 3		.,				—
Northing			963.80				t): 179 5						—
Orill Start			0-2009			art Time		Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Orill Finis			0-2009	9			ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1s				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂							ne: N/A	Driller's Name: Not applicable					
Commen	ts: So i	l with	mowe	d gra	ass and	d brusl	n at surf	ce Well Comp. Date: N/A Completion	Time	e: 1	N/A		
Samplers	: Gra	b sam	ple co	ollect	ed in 6	inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tim			N/A		
ā N							_				% o	So	il_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	le le	Coarse Sand	Med. Sand	Fine Sand	Vel
Reta Sam	Rec (%)	Blov	B B	Wate	Dept	Grap	USC		Gravel	Coal	Med	Fine	Silt/Clay
					- 1-			[See Trench Log ISRA-HVS-3 for lithology]					
					2-								
⊗ ∎ s					_		SM	Silty Sand, strong brown (7.5YR 4/6) to dark yellowish brown (10YR 4/4), dense, moist, subangular to subrounded gravel, roots and rootlets, no odor, no staining [Colluvium]	5	5	25	30	3
					3-	1344,1444,134		Total Depth = 3.0 ft. Collected soil sample S001 at 14:05 from excavation floor.					
					_			Excavation backfilled 12-02-2009.					
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					6-								
					=								
					7-								
					8-								
					-								
					9-								
					10-								

	MW							Boring ID: HZET0722					
Borehole							th (ft): 3						
Northing (79.90				t): 1795						
Orill Start	Date:	09-3	0-2009	9			e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath	anas	in, P	.G.		
Drill Finis	h Date:	: 09-3	0-2009	9	Fir	ish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	N/A				
Depth 1st	: H ₂ O (f	ft):		N/A	Da	te / Tin	ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth H ₂ 0	O After	Drillin	g (ft): I	N/A	Da	te / Tin	ne: N/A	Driller's Name: Not applicable					
Comment	ts: Soi l	l with	mowe	d gra	ass and	d brust	n at surfa	Ce Well Comp. Date: N/A Completion	Time	e: I	N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in 6	inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tin	ie:		N/A		
<u>a</u>							_			Est.	% o	So	il
be er				<u></u>	Ð	g	ior			nd			
Sample Interval Retained Sample Type	2	÷.	Œ	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description		Coarse Sand	Med. Sand	Fine Sand	=
ple ple	Š	Ę,	dd)		ب با	hic	S S siffi	2000 i piloti	<u> </u>	se.	Š	Sa	-
Sample In Retained Sample Ty	Recovery (%)	Blow Count/6"	PID (ppm)	ate	ept	гар	SC		Gravel	oar	ed	ne	Silt/Clay
ñæï	₹ ⊗	面び	Ы		ے کے	9	35		Ō	ပ	Σ	证	i.
					U-			[See Trench Log ISRA-HVS-3 for lithology]					
					_								
					1-								
					-								
					2-								
					2-								
					-								
						SOUTH SEE				l _			
							SM	Silty Sand, strong brown (7.5YR 4/6), dense, moist, rootlets, no odor, no staining [Colluvium]		5	20	35	4
₩ s					3-			[Collaviani]					
××						351-454-15		Total Depth = 3.2 ft.					
					_								
								Collected soil sample S001 at 14:16 from excavation floor.					
								Excavation backfilled 12-02-2009.					
					4								
					_								
					5								
					6-								
					7-								
					8-								
					_								
					9-								
					_								

	MW							Boring ID: HZET0723					_
Borehole							th (ft): 3						_
Northing (93.27				t): 1795						_
Orill Start			0-2009				e: NR	Logged By: A. Goldenberg Reviewed By: V. Vathan		, P.	G.		_
Orill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumentation: N/	Α				_
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂ 0							ne: N/A	Driller's Name: Not applicable					_
Comment									me:		/A		_
Samplers	Gra	b sam	ipie co	DIIECT	tea in 6	o-inch s		steel sleeve Soil Backfill Date: N/A Backfill Time:	F		<u>/A</u> % of	Soi	_
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description [See Trench Log ISRA-HVS-3 for lithology]		Coarse Sand	Med. Sand	Fine Sand	.0,70
					1— 2—								
S s					3-		SM	Silty Sand, strong brown (7.5YR 4/6), dense, moist, roots and rootlets, no odor, no staining [Colluvium]		5	20	35	4
					_			Total Depth = 3.2 ft. Collected soil sample S001 at 14:25 from excavation floor.					i
					4			Excavation backfilled 12-02-2009.					Ì
					_								Ì
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					10-								l

						Π.			Boring ID: HZET0724					—
		Diam.						th (ft): 3						
Northi				56.47				t): 1795						
Orill S	start	Date:	09-3	0-2009	•			e: NR	Logged By: A. Goldenberg Reviewed By: V. Vat		in, P	.G.		
Drill F	inish	Date:	09-3	0-2009)	Fin	nish Tin	ne: NR	Drilling Contractor: Envirosolve Field Instrumentation:	PID				
Depth	1st	H₂O (f	t):	1	N/A	Da	te / Tin	ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					
Depth	H ₂ C) After	Drilling	g (ft): N	N/A	Da	te / Tin	ne: N/A	Driller's Name: Not applicable					
Comn	nent	s: Exc	avatio	n in s	oil aı	nd grav	vel roa	dway	Well Comp. Date: N/A Completic	n Time	e: I	N/A		
Samp	lers:	Gra	b sam	ple co	llect	ed in 6	inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill Ti	ne:	-	N/A		
'al											Est.	% o	f So	il
ĕ	be				<u></u>	-	g	ion			g			
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description	Gravel	Coarse Sand	Med. Sand	Fine Sand	Cil+/Clay
<i>n</i> IE	S	E 5	шО	<u>п</u>	>	_0_	U	70	[See Trench Log ISRA-HVS-3 for lithology]	- 6	0	2	ш.	0.
						1— - 2—								
	S			0.0		3—		SM	Silty Sand with Gravel, brown (10YR 4/3) to dark brown (10YR 3/3), medium dense, moist, angular to subrounded gravel and cobbles, unknown odor, no staining [Fill] [See Trench Log ISRA-HVS-3 for lithology]	15	5	30	25	2
						4-			Total Excavation Depth = 3.5 ft. Collected soil sample S001 at 13:30 from excavation sidewall.					
						-			Ben Stewart onsite to observe unknown odor and take headspace PID reading (0.0 ppm at background of 0.0 ppm). Excavation backfilled 12-02-2009.					
						5-								
						6-								
						-								
						7-								
						8-								
						9-								
						_								

	MW		,			tal D -	th (#\: ^		Boring ID: HZE		000 4						—
Borehole							th (ft): 2			A Sampling - Outfall					_		_
Northing (919.95				t): 1795		Job Number: 18916			Happy Valley Sou					
Orill Start			0-2009				: NR		Logged By: A. Gol	-		wed By: V. Vatha		ın, P	G.		
Orill Finis							ne: NR		Drilling Contractor: E			Instrumentation: I	N/A				_
Depth 1st				N/A		Date / Time: N/A Drill Rig Type/Method: Grab (hand sampling) Date / Time: N/A Driller's Name: Not applicable											
Depth H ₂ 0					•				Driller's Name: Not		NI/A	Completion	T:		l/A		
								g roadway		Well Comp. Date: Soil Backfill Date:					VA VA		
	. Gra	D Sali	ipie co	JileCi	tea iii t	o-inch s		steel sleeve		Soil Backilli Date.	N/A	Backfill Time			% of	F So	
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Silty Sand, d and metal de	dark yellowish brown (ebris observed, no od	Description 10YR 4/4), medium dor, no staining [Fill]	ense, dry t	o moist, asphalt	Gravel	Coarse Sand	Med. Sand	S Line Sand	
⊗ s					1- - 2-			[See Trench	ı Log ISRA-HVS-3 for	lithology]							
					-			Total Excava	ation Depth = 2.5 ft.								t
								Collected so	oil sample S001 at 13:	25 from excavation si	dewall						
					3-	1					aorran.						
								Excavation b	backfilled 12-02-2009								
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					4	1											
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	MW								ng ID: HZE 1							_
orehole		`					th (ft): 6			Sampling - Outfall 00						
orthing (933.91				t): 179 5		lumber: 1891614		Site: Happy Valley Sou					_
rill Start	Date:	10-1	9-200	9			e: NR		ed By: A. Golde	-	Reviewed By: V. Vatha	anas	in, P	.G.		
rill Finis	h Date	: 10-1	9-200	9			ne: NR		g Contractor: En		Field Instrumentation:	N/A				_
epth 1st	t H ₂ O (f	ft):		N/A	Da	ate / Tin	ne: N/A	Drill F	Rig Type/Method:	Grab (hand sampling)					_
epth H ₂ 0	O After	Drillin	g (ft):	N/A	Da	ate / Tin	ne: N/A	Drille	r's Name: Not a	pplicable						
omment	ts: Bar	e soil	at sur	rface)					Well Comp. Date: N/	A Completion	Time	e: N	N/A		
	: Gra	b sam	ple c	ollec	ted in (6-inch	stainless	steel sleeve		Soil Backfill Date: N/	A Backfill Tim			N/A		
Retained Sample Type							_							% o	f So	il
Retained Sample Type				<u></u>	£	Graphic Log	USCS Soil Classification						Sand	-	_	
e e	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	C L	Soi			Description			Š	Med. Sand	Fine Sand	
Retained Sample T	ŏ	ž ≤	<u>a</u>	<u>e</u>	ŧ	phi	SSi					Gravel	Coarse	S	ŝ	
et an	% %	ě	Ō	at	Эер	ra	Sias					ā	S	Jec	<u> </u>	
) IE 0	E 5	шО	п.	>	_0_	U	50	<u> </u>	004111000			10	0	2	ш.	+
								[See Trench Log I	SRA-HVS-3 for III	nologyj						
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					_											
					3-	-										
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					4-	-										
					-											
					5	Skapas	OM.	0:15 : 0 1 1 1 1	-11	OVD 0/4) to deal become	(40)(D 0(0)		_	0.5	_ ا	
							SM	Silty Sand, dark ye	ellowish brown (10	OYR 3/4) to dark brown staining [Colluvium]	(10YR 3/3), medium		5	25	35	
								dense, moist, root	ilets, no odor, no s	stairing [Colluvium]						
					-											
s																
8					6-			T. 15 " -:				-	_			4
					-			Total Depth = 6.0	π.							
								Collected soil sam	ples S001 and S0	001-RWQCB at 08:55	from excavation floor.					
					-	1										
								Excavation backfil	iled 12-02-2009.							
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Janete 1	MW				T-	4-1 5	11 /ft\ C	Boring ID: HZET0727						—
Borehole							th (ft): 6.	Project: SSFL ISRA Sampling - Outfall 008 Ar				_		—
Northing (38.19				t): 1795		te: Happy Valley Sou					_
Orill Start			9-2009				e: NR		eviewed By: V. Vatha		n, P	.G.		
Orill Finis							ne: NR		eld Instrumentation: N	N/A				_
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)						—
Depth H ₂ 0						te / Tin	ne: N/A	Driller's Name: Not applicable						
Comment								Well Comp. Date: N/A	Completion	Time		N/A		
	: Gra	b sam	ple co	ollect	ted in 6	3-inch s	stainless	eel sleeve Soil Backfill Date: N/A	Backfill Time			N/A		
Sample Interval Retained Sample Type							_					% o	f So	<u>ll</u>
Sample Interv Retained Sample Type			_	<u>ē</u>	æ()	Graphic Log	USCS Soil Classification				Sand	-	_	
= p =	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	<u>د</u> ا	Soi	Description			Š	Med. Sand	Fine Sand	
Sample Ir Retained Sample T	Š	ı k	d)	ē	ţ	phi	SSii			Gravel	Coarse	S	S	
Ret:	% %	500	Ō	\at	Эер	ra	Sias			ā	, og	Jec	Ľ,	
0 12 00	E S	ВО	ь.	>	_0_	0	70	O T 11 10DA 18/0 0 (18/1 1 1		0	0	_	-	+
								See Trench Log ISRA-HVS-3 for lithology]						
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×					_	198749419	014	271. 0 . 1 . 1 . 1 . (40) (7) 0(0)			_			
s							SM	Silty Sand, dark brown (10YR 3/3), medium dense, moist, root no odor, no staining [Colluvium]	s and rootlets,		5	25	35	
&														
					5-									
					6-			Fotal Excavation Depth = 6.0 ft.						+
								Collected soil samples S001 and S001-RWQCB at 09:05 from	excavation					
								sidewall.						
								Excavation backfilled 12-02-2009.						
					7-			Executation buokimed 12 oz 2000.						
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<u> </u>	_	ИW				1_	4-15	41- 750		Boring ID: HZE		00.4						—
		Diam.						th (ft): 1			Sampling - Outfall 0							_
Northi				22.95				t): 1795		Job Number: 1891614		1	appy Valley So					_
Orill S	tart	Date:	10-2	9-2009	9		art Time			Logged By: A. Gold	-	Reviewe	ed By: B. Mart	asin,	P.G	1		
Drill F	inish	Date:	10-2	9-2009	9			ne: 10:5	5	Drilling Contractor: En	virosolve	Field Ins	strumentation:	PID				
		H ₂ O (f	-		N/A	Da	ate / Tim	ne: N/A		Drill Rig Type/Method:	Grab (hand samplin	g)						_
Depth	H ₂ C) After	Drilling	g (ft): I	N/A	Da	ate / Tim	ne: N/A		Driller's Name: Not a	pplicable							
Comn	nent	s: Adj	acent 1	cent to metal pipe, bare soil at surface Well Comp. Date: N/A										Time	e: 1	N/A		
Samp												Backfill Tim	e:	1	N/A			
<u>8</u>													1	Est.	% of	So	il	
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		1	Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	0.14(0)
—	s			0.0		_0_ - 1_		SM	loose to den metal pipe),	ith Gravel, brown (10Yl se, moist, angular sand no odor, no staining [F	dstone gravel, debris o	h brown (1 bbserved (c	0YR 4/4), ceramic and	15		25	20	_
						•				very hard [Chatsworth I	Formation]							
									Total Depth	= 1.2 π.								
						_	1		Collected so	il sample S001 at 10:5	O from excavation floo	or.						
	2 — Excavation backfilled 12-02-2009.																	
						_												
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						9	1											
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	MW								Boring ID: HZE								_
Borehole							th (ft): 1			A Sampling - Outfall 00							_
lorthing			26.06				t): 1795		Job Number: 189161		Site: Happy Vall						—
orill Start			9-2009				e: 11:0		Logged By: A. Gold	_	Reviewed By: B			P.G.			
rill Finis							ne: 11:1		Drilling Contractor: E		Field Instrumenta	tion: P	ID_				_
Depth 1st H ₂ O (ft): N/A Date / Time: N/A Drill Rig Type/Method: Grab (hand sampling)														_			
Depth H ₂ O After Drilling (ft): N/A Date / Time: N/A Driller's Name: Not applicable														_			
							at surfac			Well Comp. Date: N		oletion T	ime		I/A		_
	: Gra	b sam	ple co	ollect	ted in (6-inch s	stainless	steel sleeve		Soil Backfill Date: N	/A Back	fill Time			I/A		
Sample merval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand is	Med. Sand	Fine Sand	
Sample Sound (%) Sample								(R 4/3) to dark vellowish	n brown (10YR 4/4).		15	8 5	9 25	E 20			
s							S.	loose to med	dium dense, moist, sut gravel, no odor, no sta	oangular sandstone gra	vel, subrounded to			•			
								Sandstone, v	very hard [Chatsworth	Formation]							
Sandstone, very hard [Chatsworth Formation] Total Depth = 1.7 ft.																	
Collected soil sample S001 at 11:05 from excavation floor.																	
								·									
					-			Excavation b	packfilled 12-02-2009.								
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Porobolo								Boring ID: HZET0730						_
	Diam.						th (ft): 9	Project: SSFL ISRA Sampling - Outfall						_
Northing			25.10				t): 179		Site: Happy Valley Sou					_
Orill Start			9-2009				e: 11:2	Logged By: A. Goldenberg	Reviewed By: B. Marta		P.G.			
Orill Finis							ne: 11:2	Drilling Contractor: Envirosolve	Field Instrumentation:	PID				_
Depth 1st		_		N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampl	ing)					_
Depth H ₂ 0						te / Tin	ne: N/A	Driller's Name: Not applicable						_
Comment								Well Comp. Date:				N/A		
	: Gra	ıb sam	ple co	llecte	ed in 6	inch s	stainless	el sleeve Soil Backfill Date:	N/A Backfill Time			N/A % of		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description ormer tank		Gravel	Sand	Med. Sand	Fine Sand	
			0.0		2— 4— 4— 6— 10— 112— 14— 118— 18—			ravel and cobbles 2 to 4 inches diameter [Fill] andstone, very pale brown (10YR 7/4) to yellow (10YF durated, massive [Chatsworth Formation] otal Depth = 9.5 ft. ollected soil samples S001 and S001-RWQCB at 11: ollected two additional sleeves at 12:46 on 11-02-09 (xcavation backfilled 12-02-2009.	25 from excavation floor.					

	MW	/H						I	Boring ID: HZE T	TC	731						
Borehole	Diam.	(in.): 2					th (ft): S		Project: SSFL ISRA	S	ampling - Outfall 008						
lorthing	(ft):		23.94				t): 179		Job Number: 1891614			Site: Happy Valley So					_
orill Start			9-2009			art Time			Logged By: A. Gold		-	Reviewed By: B. Mar		P.G	i		
orill Finis							ne: 11:4		Drilling Contractor: En			Field Instrumentation:	PID				_
epth 1s				N/A			ne: N/A		Drill Rig Type/Method:								_
epth H ₂ Commen					Da	ate / I in	ne: N/A		Driller's Name: Not a		Nell Comp. Date: N/	A Completion	Time	· •	N/A		_
					ed in 6	6-inch s	stainless	s steel sleeve			Soil Backfill Date: N/A				VA		_
											50 Buom Buto. 14.2	.			% of	So	il
Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Fill [See Trer			scription		Gravel	Coarse Sand	Med. Sand	Fine Sand	
s			0.0		2			Sandstone, vindurated, ma	very pale brown (10YR assive [Chatsworth For assive [Chatsworth For assive Interpretation of the packfilled 12-02-2009.	: 7/	(4) to yellow (10YR 7/6) nation]						
					16- -												
					18-	-											
					20-												

	MW				1_				Boring ID: HZE									
Borehole							oth (ft): 5			Sampling - Outfall								
Northing (908.96				t): 1795		Job Number: 1891614				oy Valley Sοι					
Drill Start	Date:	09-2	3-2009	9			e: NR		Logged By: A. Gold	_			By: V. Vath a		in, P	.G.		
Drill Finisl	h Date:	09-2	3-2009	9			ne: NR		Drilling Contractor: Er	virosolve	Fi	ield Instru	mentation: I	N/A				
Depth 1st	H ₂ O (f	t):		N/A	Da	te / Tin	ne: N/A		Drill Rig Type/Method:	Grab (hand sampl	ling)							
Depth H ₂ 0	O After	Drilling	g (ft): I	N/A	Da	te / Tin	ne: N/A		Driller's Name: Not a	pplicable			T					
Comment	s: Bar	e soil	at sur	face						Well Comp. Date:	N/A		Completion	Time	e: I	N/A		
Samplers	: Gra	b sam	iple co	ollect	ted in 6	3-inch	stainless	steel sleeve		Soil Backfill Date:	N/A		Backfill Time	e:	1	N/A		
<u>a</u>							_							1	Est.	% o	f So	il
pe er				<u></u>	Ð	g	ior								nd			
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification		ſ	Description					Coarse Sand	Med. Sand	Fine Sand	2
호투현	8	ırt,	<u>a</u>	ē	ŧ	phi	SSif			•				Gravel	rse	S.	ŝ	Silt/Clay
ar lets	% %	on o	₽	/at	ер	<u>a</u>	ISC :las							ā	oa	<u>Je</u>	<u>i</u>	1
S E S	₩ ೮	CB	Д	>	_0_	9	<u> </u>							၂ၑ	0	2	ш	U.
					•			[See Trench	Log ISRA-HVS-4 for li	thology]								
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					2-													
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					3													
					-													
					4	STEPHEN PO												
					•		SM		dark yellowish brown (1	0YR 4/4), medium o	dense,	moist, roo	otlets,		5	30	25	4
								no odor, no	staining [Colluvium]									
					-													
⊗ s																		
					-													
~~~					5-			Total Depth	= 5.0 ft.									
										0.6								
					_			Collected so	oil sample S001 at 10:1	υ trom excavation fl	oor.							
								Excavation I	backfilled 11-24-2009.									
					6													
					_													
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	MW								Boring ID: <b>HZE</b>								_
Borehole							th (ft): 4			A Sampling - Outfall (							_
Northing (			391.12				t): <b>1795</b>	637.56	Job Number: 189161			py Valley Sοι					_
Orill Start			3-2009				e: NR		Logged By: A. Gold	-		By: V. Vatha		in, P	G.		
Orill Finis							ne: NR		Drilling Contractor: E			umentation: I	N/A				
Depth 1st				N/A			ne: N/A		Drill Rig Type/Method		ng)						_
Depth H ₂ 0					Da	te / Tin	ne: N/A		Driller's Name: Not a								
Comment										Well Comp. Date:		Completion			I/A		
	: Gra	b sam	ple co	ollecte	ed in 6	inch s	stainless	steel sleeve	)	Soil Backfill Date:	N/A	Backfill Tim			I/A		_
Sample Interval Retained Sample Type						_	<u>_</u>						<u> </u>	Est.	% O1	So	11
Sample Interv Retained Sample Type			(	Water Level	et)	Graphic Log	USCS Soil Classification							Coarse Sand	ᅙ	-	
Sample Ir Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	잍	Depth (feet)	<u>:</u>	So			Description			l _	O O	Med. Sand	Fine Sand	
n air	ő _	ž Į	g) (	te	pth	ηdε	CS						Gravel	ars	9	<u>Ф</u>	
Sal	88 88	S B C	Ы	×	De	G	US Cla						S. S.	ပိ	¥	ᇤ	
				$\Box$	0-			[See Tren	ch Log ISRA-HVS-4 for	lithologyl							t
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					1-												
					-												
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					4-	###	SM	Silty Sand	, dark yellowish brown (	10YR 4/4), dense, moi	st, rootlets, no	odor,		10	30	25	
s								no staining	g [Colluvium]								
					_			Total Dept	th = 4.5 ft								+
					5			Collected	soil sample S001 at 10:4	10 from excavation flo	or.						
					3			Excavation	n backfilled 11-24-2009.								
								LXCUVUIIO	11 baokililea 11 24 2000.								
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	MW				1_		(1. 75)	Boring ID: HZET0802						
Borehole							th (ft): 4					_		
Northing			399.85				t): <b>1795</b>		_					_
Orill Start			3-2009				e: NR	Logged By: A. Goldenberg Reviewed By:			in, P	.G.		
Drill Finis							ne: NR	Drilling Contractor: Envirosolve Field Instrumen	ation: N	N/A				
Depth 1st				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)						_
Depth H ₂ 0						ate / Tin	ne: N/A	Driller's Name: Not applicable						
Comment									npletion			N/A		
	: Gra	b sam	ple co	ollect	ted in 6	S-inch	stainless	teel sleeve Soil Backfill Date: N/A Bac	kfill Time			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description  [See Trench Log ISRA-HVS-4 for lithology]		Gravel	Sand	Med. Sand	Fine Sand	
					1— 2— 3—									
s					<b>4</b> -		SM	Silty Sand, dark yellowish brown (10YR 4/4), dense, dry, subangular gravel, no odor, no staining [Colluvium]  Total Depth = 4.3 ft.		10	10	30	20	. :
					5-	-		Collected soil samples S001 and S001-RWQCB at 09:10 from excavation fl Excavation backfilled 11-24-2009.	oor.					
					7-									
					8-									
					9-									
					10-									

	MW							Boring ID: <b>HZET0803</b>					_
Borehole							th (ft): 4	• •					_
Northing			11.91				t): <b>1795</b>						_
Orill Start			3-2009		- 1		e: NR	Logged By: A. Goldenberg Reviewed By: V. Vath		in, P	.G.		
Orill Finis							ne: NR	Drilling Contractor: <b>Envirosolve</b> Field Instrumentation:	N/A				_
Depth 1s				N/A			ne: N/A	Drill Rig Type/Method: Grab (hand sampling)					_
Depth H ₂					•		ne: N/A	Driller's Name: Not applicable					
Commen								Well Comp. Date: N/A Completion	Time	e: 1	N/A		_
	: Gra	b sam	ple co	llect	ted in 6	inch s	stainless	steel sleeve Soil Backfill Date: N/A Backfill Tin			N/A		
<u>a</u>							_		<u> </u>	_	% o	f So	il
Sample Interval Retained Sample Type			(	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Coarse Sand	ਰੂ	5	
sample II Retained Sample T	Recovery (%)	Blow Count/6"	PID (ppm)	=	Ę.	i i	ည်း	Description	_	O)	Med. Sand	Fine Sand	
n Tair T	S _	žΞ	g) (	Ę.	bt	aph	CS		Gravel	ars	9	Φ (0)	
Sal Sal	88	ಹೆಂ	ᆸ	×	De	Gr	US Cla		يق	ပိ	<b>≥</b>	ᇤ	
				Н	0-			[See Trench Log ISRA-HVS-4 for lithology]					t
								[244 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4					
					-								
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					2-								
					+								
					3-								
					+								
×==					4-	esperatores	0	Oile Oard collection (40)/D 5(4)		_	22		
s							SM	Silty Sand, yellowish brown (10YR 5/4), dense, dry, roots and rootlets, no odor, no staining [Colluvium]		5	30	25	
× ·								no staining [contrain]					
~~					1	. 51 to 15 Te 15		Total Depth = 4.5 ft.					†
								•					
					5-			Collected soil sample S001 at 10:50 from excavation floor.					
								Excavation backfilled 11-24-2009.					
					1								
					6-								
					1								
					7-								
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					8-								
					1								
					9-								
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orehole Diam.	(in \· 3			Т-	ıtal Don	th (ft): 3	8	Boring ID: <b>HZE</b> Project: <b>SSFL ISR</b>	A Sampling - Outfall 0	INS Aros						
lorthing (ft):		95.85				t): <b>1795</b>		Job Number: 18916			appy Valley Sou	.th	LIV6	4		
rill Start Date:		3-2009				e: NR	010.47	Logged By: A. Gol			ed By: V. Vath					
rill Finish Date					nish Tim			Drilling Contractor: E	_		strumentation:		III, P	.G.		-
epth 1st H ₂ O (			, N/A			ne: N/A			: Grab (hand samplin		strumentation.	IN/A				
epth H ₂ O After	_					ne: N/A		Driller's Name: Not		ig)						
comments: <b>As</b>							l haco	Dillers Name. Not	Well Comp. Date: N	NI/A	Completion	Time	· N	N/A		
amplers: Gra									Soil Backfill Date: N		'			V/A		
	ib Saiii	pie co	nect	eu III (	0-IIICII S		Steel Sieeve		Soil Backilli Date. I	WA.	Backfill Tim		Est.		f Sc	oil
Retained Sample Type Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil ⊠ Classification	Silty Sand v	with Gravel, yellowish b	<b>Description</b> prown (10YR 5/4) to dai	rk yellowish	brown	15 <b>Gravel</b>	Coarse Sand	Med. Sand	20 Fine Sand	0110101
s				1		Зім	(10YR 4/4),	h Log ISRA-HVS-4 for	rootlets, no odor, no st	aining [Fill]	DIOWII	15		23	20	
				3	-			vation Depth = 3.8 ft. oil sample S001 at 10:	40 from excavation side	ewall.						_
				5-	-		Excavation	backfilled 11-24-2009.								
				6												
				7 8- - 9	-											

	ΜW				T_	4-1 5	41- /£1)	Boring ID: <b>HZET0805</b>						
Borehole I							th (ft): 4							
Northing (			917.79				t): <b>179</b>							
Drill Start	Date:	09-2	3-2009	9			e: NR	Logged By: A. Goldenberg Reviewed By	: V. Vathai	nasi	n, P	.G.		
Drill Finish	n Date:	09-2	3-2009	9			ne: NR	Drilling Contractor: <b>Envirosolve</b> Field Instrum	entation: N	/A				
Depth 1st	H ₂ O (f	t):		N/A	Da	ate / Tin	ne: N/A	Drill Rig Type/Method: Grab (hand sampling)						
Depth H₂C	) After	Drillin	g (ft): I	N/A	Da	ate / Tin	ne: N/A	Driller's Name: Not applicable						
Comments	s: <b>Bar</b>	e soil	at sur	face				Well Comp. Date: N/A	Completion T	ime	: N	N/A		
Samplers:	Gra	b sam	iple co	ollect	ted in (	6-inch s	stainless	teel sleeve Soil Backfill Date: N/A	Backfill Time	:	١	N/A		
<u> </u>							_			E	Est.	% of	F So	il
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Description		Gravel	Coarse Sand	Med. Sand	Fine Sand	Silt/Clav
s					0- - 1- 2- 3- 4-		SM	Silty Sand, dark yellowish brown (10YR 4/4), medium dense, dry, subang gravel, roots and rootlets, asphalt and metal (wire) debris observed, no on staining [Fill]  [See Trench Log ISRA-HVS-4 for lithology]	ular dor,	5	10	30	20	35
					5			Total Excavation Depth = 4.8 ft.  Collected soil samples S001 and duplicate D001 at 10:25 from excavatio	n					
					-	-		sidewall.  Excavation backfilled 11-24-2009.						
					6-	-								
					7-	-								
					8	-								
					9-	-								
					10-	1								

	MW				1_		11 /20		Boring ID: HZE		000 -						
Borehole							th (ft): 4			Sampling - Outfall							
Northing			390.84				t): <b>179</b>		Job Number: 1891614			te: Happy Valley Sou					
Drill Start							e: NR		Logged By: A. Golde	=		eviewed By: V. Vatha		in, P	.G.		
Drill Finis	h Date:	09-2	3-2009	9			ne: NR		Drilling Contractor: En			eld Instrumentation:	N/A				
Depth 1st	t H₂O (f	t):		N/A	Da	ate / Tin	ne: N/A		Drill Rig Type/Method:	Grab (hand sampl	ing)						
Depth H ₂ 0	O After	Drillin	g (ft): <b>I</b>	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not a	plicable							
Comment	ts: <b>Soi</b> l	with	brush	at s	urface					Well Comp. Date:	N/A	Completion	Time	e: 1	N/A		
Samplers	: Gra	b sam	ple co	ollect	ted in (	6-inch s	stainless	s steel sleeve		Soil Backfill Date:	N/A	Backfill Tim	e:	1	N/A		
/al													I	Est.	% of		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	
. α					1 2 3		SM	rootlets, no o	dark yellowish brown (10 odor, no staining [Fill] n Log ISRA-HVS-4 for lit		ense, c	lry, roots and		10	30	25	35
	Collecte sidewal		Collected so sidewall.	ation Depth = 4.0 ft. bil samples S001 and S0 backfilled 11-24-2009.	001-RWQCB at 09:	20 from	excavation										
					-	-											
					6-	-											
	7- - 8-																
	9-																
					10-												

	(in ). •			-	tal D -	th (#\\ •	_	Drainet: COTI ICE	A Complian Outful 00	Q Area					
Borehole Diam.						th (ft): 3			A Sampling - Outfall 00				_		
lorthing (ft):		17.43				t): 1795	5590.68	Job Number: 189161		Site: Happy Valley So					
orill Start Date:						: NR		Logged By: A. Gold	-	Reviewed By: V. Vath		ın, P	.G.		
orill Finish Date:						ne: NR		Drilling Contractor: E		Field Instrumentation:	N/A				
epth 1st H ₂ O (f			N/A			ne: N/A			: Grab (hand sampling	)					_
epth H ₂ O After				•		ne: N/A		Driller's Name: Not							
Comments: Soi									Well Comp. Date: N/		Time		N/A		
amplers: Gra	b sam	ple co	llect	ed in 6	6-inch s	tainless	steel sleeve		Soil Backfill Date: N/	A Backfill Tin			N/A		
Retained Sample Type Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	© USCS Soil ⊠ Classification	Silty Sand w dry to moist	vith Gravel, dark vellow	Description  vish brown (10YR 4/6), roodor, no staining [Fill]	nedium dense to dense,	Cavel 6	Coarse Sand	% o Med. Sand	30 Sand	7010/110
s s				1 2 3	2000-000-000-000-000-000-000-000-000-00		[See Trench	n Log ISRA-HVS-4 for	lithology]						
Total Ex. Collected				Collected so	vation Depth = 3.5 ft.  bil sample S001 at 08:0  backfilled 11-24-2009.	00 from excavation side	wall.								
				5-											
				6-											
				7-											
				8-											
				9-											

	MW				1_	4-15	41- 750 -		Boring ID: <b>HZE</b>		200 4						
Borehole									•	Sampling - Outfall							
Northing	ng (ft):       265869.99       Easting (ft):       1795444         art Date:       08-26-2009       Start Time:       NR         nish Date:       08-26-2009       Finish Time:       NR         1st H ₂ O (ft):       N/A       Date / Time:       N/A         H ₂ O After Drilling (ft):       N/A       Date / Time:       N/A         ents:       Soil with brush, old hydromulch at surface						Job Number: 1891614			Happy Valley Sou							
							Logged By: A. Golde	-		wed By: S. Valer		a, P.	G.				
									Drilling Contractor: En			Instrumentation: I	PID				
									Drill Rig Type/Method:		ng)						
								•	Driller's Name: Not ap	ľ.							
					_					Well Comp. Date:	N/A	Completion	Time		N/A		
Samplers	: Gra	b sam	ple co	ollect	ed in 6	6-inch s	tainles	s steel sleeve		Soil Backfill Date:	N/A	Backfill Time			N/A		
Sample Interval Retained Sample Type							_								% of	So	il
y ye			•	कृ	et)	0-	= €							and	٦	_	
Sample In Retained Sample Ty	ery	9/	рm	F	(fe	<u>i</u>	ပို့			escription			l_	Coarse Sand	Med. Sand	Fine Sand	5
ai d	8	w Int	d)	直	th	ph	SSi						Gravel	ILS(	8	S	Silt/Clav
Sar Sar	% %	36	Olc	Sai	Эер	Gra	Sign						Ga	ဂ္ဂ	Mec	i.	#
,, E 0,	-	ш О		-	_0_		SM	Silty Sand de	ark yellowish brown (10	VP 4/4) loose to me	odium dor	oco dry angular	5	5		35	
							SIVI		ark yellowish brown (10 ar gravel, roots and root				3	3	10	33	40
								no staining [A				,					
								hecomes y	yellowish brown (10YR	5/6) dense no grav	al decre	see in fine cand					
					1-			becomes y and fines,	no roots or bioturbation	ان پرامر), من ان کار	oi, ucolea	ioc iii iiiic sailu		15	25	20	40
					_												
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<b>⊗</b> s			0.0														
			0.0		_	1.1.1.1.1			ight yellowish brown (1	OYR 6/4), weathered	, hard, dr	/					$\vdash$
					3-			[Chatsworth I	Formation]	·							Т
								Total Depth =	= 3.0 ft.								
					-			Collected soi	il sample S001 at 14:55	from excavation flo	or in ISRA	A Area DRG-1					
									·								
					A			Excavation b	packfilled 11-23-2009.								
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Borehole	Diam	(in \ 3	,		Т-	tal Doo	oth (ft): 2		Boring ID: <b>HZE</b> Project: SSFL ISRA	Sampling - Outfall 00	8 Δroa					_
												outh.	DDC			
Northing			379.78				t): 1795		Job Number: 189161		Site: Happy Valley S					
Orill Start			6-2009				e: NR		Logged By: A. Gold	-	Reviewed By: S. Val		ıa, P	.G.		
Orill Finis							ne: NR		Drilling Contractor: E		Field Instrumentation:	PID				_
Depth 1s		-		N/A			ne: N/A			Grab (hand sampling	)					
Depth H ₂							ne: N/A	•	Driller's Name: Not a							
Commen										Well Comp. Date: N/		n Time		N/A		
	: Gra	b sam	ple co	ollect	ed in 6	6-inch	stainless	s steel sleeve		Soil Backfill Date: N/	A Backfill Ti			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description		Gravel	Sand	Med. Sand	Fine Sand	
<u> </u>	\$ €	<u></u>	ᇫ	>	ے س_	Ō	೨೮					Ō				
s	s 0.0  1 Sandsto thinly be  2 Total Ex. Collecte. DRG-1.	rootlets, no o	odor, no staining [Alluv	0YR 6/4), weathered, h			5	20	100							
				2-			7.15									
									ation Depth = 2.5 ft.							
					3-				il sample S001 at 15:3	0 from excavation side	wall in ISRA Area					
			DIXO-1.													
		Excavation b	ackfilled 11-23-2009.													
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	ı		1	1	10-								1	1	I	-1

ML/SM Sandy Silt / Silty Sand, dark yellowish brown (10YR 4/4), loose to medium dense, dry, angular to subangular sandstone gravel, roots and rootlets, bioturbation observed no odor no staining [Alluvium]		MW		,		  -	tal D -	4b /41\ •		ID: HZE		100 A == = =						_
Standstone Both Control of the Contr																		_
Pinish Time   NR   Dilling (1)   NA   Dilling (1)																		
Seek ht S.H.D.(m)   MA   Date / Time. MA   Delite / Time. MA   Differ's Name:   Not applicable											-	I			ia, P	.G.		
Septiment   Sept													strumentation:	שוא				_
Comments   Soil with brush, old hydromutch at surface   Soil Backfill Date: N/A   Backfill Time: N/A   Soil Backfill Date: N/A   Soil B												ig)						_
Samplers: Grab sample collected in 6-inch stainless steel sleeve    Soil Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Soil Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Soil Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Soil Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Soil Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Soil Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Backfill Date: N/A   Backfill Time: N/A   Est. % of Soil   Backfill Date: N/A   Backfill D						•			•	ame: <b>Not</b>	-1	NI/A	Completion	Time	· I	NI/A		
Beauty Survival and the production of the production of the product of the produc						_												
ML/SM Sandy, Silf, Silfy, Sand, dark yellowish brown (10YR 4/4), loose to medium dense, dry, angular to subangular sandstone gravel, roots and rootlets, bioturbation 5 10 45 10 10 45 11 11 11 11 11 11 11 11 11 11 11 11 11		. Gra	ib San	ipie co	JileCt	eame	b-inch s		steer sieeve		Soil Backilli Date.	N/A	Dackiiii Tiiii				f So	
MUSM Sandy Stift (Sity Sand, dark yellows brown (10YR 6/4), loose to medium enese, or dry, angular saindstone gravel, nots and rootlets, biofurbation observed, no odor, no staining [Alluvium]  Sandstone, light yellowish brown (10YR 6/4), weathered, very hard, dry, fine-grained, fractured; rootlets at upper contact [Chatsworth Formation]	Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	22.22				•			Gravel	_	Med. Sand	Fine Sand	0:14/0
fine-grained, fractured  Total Excavation Depth = 2.5 ft. Collected soil sample S001 and MS/MSD at 14:25 from excavation sidewall in ISRA Area DRG-1. Excavation backfilled 11-23-2009.	S			0.0		_		ML/SM	dry, angular to subang	ular sandst	one gravel, roots and r	loose to mootlets, bio	nedium dense, turbation			to		
Total Excavation Depth = 2.5 ft. Collected soil sample S001 and MS/MSD at 14:25 from excavation sidewall in ISRA Area DRG-1. Excavation backfilled 11-23-2009.  5- 6- 7- 8-						2-											100	)
Collected soil sample S001 and MS/MSD at 14:25 from excavation sidewall in ISRA Area DRG-1.  Excavation backfilled 11-23-2009.  5-  6-  7-  8-									becomes less fracti	ired								
Collected soil sample S001 and MS/MSD at 14:25 from excavation sidewall in ISRA Area DRG-1.  Excavation backfilled 11-23-2009.  5-  6-  7-  8-						-			Total Excavation Dep	h = 2.5 ft.								+
SRA Area DRG-1.   Excavation backfilled 11-23-2009.									•		10/1100							
Excavation backfilled 11-23-2009.  4-  5-  6-  7-  8-						3-	-			S001 and N	IS/MSD at 14:25 from (	excavation	sidewall in					
4- 5- 6- 7- 8-		Total Excapation  Total Excapation  Total Excapation																
5 6 7 8								Excavation backfilled	11-23-2009.									
5 6 7 8																		
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orehole							th (ft): 3			A Sampling - Outfall 00					_		_
lorthing			379.73				t): 1795		Job Number: 189161			py Valley Sou					_
rill Start			6-2009				: NR		Logged By: A. Gold	-		By: S. Valer		a, P.	G.		_
rill Finis							ne: NR		Drilling Contractor: E			umentation:	PID				_
epth 1st				N/A			ne: N/A			Grab (hand sampling	1)						_
epth H ₂							ne: N/A	•	Driller's Name: Not a	1							_
					_		at surfac			Well Comp. Date: N		Completion			I/A		_
	: Gra	b sam	ple co	llecte	ed in 6	inch s	stainless	steel sleeve		Soil Backfill Date: N	/A	Backfill Tim			I/A		_
Sample interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	to subangula	ark yellowish brown (1	Description  OYR 4/4), loose to medots and rootlets, bioturi	lium dense, pation obser	dry, angular ved,	g Gravel	Coarse Sand	% Med. Sand 5	Sand 8	
	1— Sandy to submooded  1— Sandy to submooded  2— Sands slightly  3— √ beer  Total C						staining [Alluvium] Ć										
₩	S 0.0 Slightly  3-  Total Do  Collecte			Sandstone, y slightly weath	yellowish brown (10YF hered, hard, dry, fine-ç	t 5/6) to light yellowish t grained, fractured [Chat	orown (10YF sworth Form	8 6/4), aation]				100					
S	s 0.0 0.0 √ become		becomes I									L					
								•									
	Total □ Collect		Collected sa	mple S001 at 14:40 fro	om excavation floor from	m ISRA Area	DRG-1.					l					
			Excavation b	packfilled 11-23-2009.								l					
					1												
					5												
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. سالم	~ (£1).						th (ft): 3		•	A Sampling - Outfall 00		Caudh	DDC			_
	g (ft):		865.19				t): 1795 e: NR		Job Number: 189161		Site: Happy Valley					_
	art Date		26-2009						Logged By: A. Gold	_	Reviewed By: S. V		ia, P	.G.		
		te: <b>08-</b> 2					ne: NR		Drilling Contractor: E		Field Instrumentatio	n: PID				—
	Ist H ₂ O			N/A			ne: N/A			Grab (hand sampling	)					—
		er Drillir					ne: N/A		Driller's Name: Not a	*I*						
		oil with	•							Well Comp. Date: N/		tion Tim		N/A		_
mple	rs: G	rab sar	nple co	ollecte	<u>ed in 6</u>	-inch s	stainless	steel sleeve		Soil Backfill Date: N/	A Backfill			N/A		
Retained	Recovery	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification	Condy Cilt /		Description	podium doppo, day	Gravel	Sand	Med. Sand	Fine Sand	
Ś	S		0.0		1— _ _		ML/SM		sandstone gravel, root	rish brown (10YR 4/4), n s and rootlets, bioturbati		5 5		15 to 15	35	
	3 Total Expression Collecte DRG-1.	Sandstone, weathered, I	yellowish brown (10YF hard, dry, fine-grained	R 5/4) to light yellowish b [Chatsworth Formation]	rown (10YR 6/4),				100	)						
		Tatal Francis								_						
		l otal Excava	vation Depth = 3.0 ft.													
			oil sample S001 at 15:1	0 from excavation side	wall in ISRA Area											
		DRG-1.														
		Excavation I	backfilled 11-23-2009.													
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	MW								Boring ID: <b>HZE</b>							_
Borehole							th (ft): 1			A Sampling - Outfall 00						
Northing			129.57				t): <b>1796</b>		Job Number: 189161		Site: Happy Valley So					_
Orill Start	Date:	10-0	5-200	9			e: NR		Logged By: A. Gold	-	Reviewed By: V. Vath		in, P	.G.		
Orill Finis							ne: NR		Drilling Contractor: E		Field Instrumentation:	N/A				
Depth 1s		_		N/A			ne: N/A			Grab (hand sampling	1)					_
Depth H ₂						ate / Tin	ne: N/A		Driller's Name: Not a							
Commen	ts: Lo	cated i	in unp	aved	d road					Well Comp. Date: N/		Time		N/A		
	: Gra	ab sam	nple co	ollec	ted in	6-inch s	stainless	steel sleeve		Soil Backfill Date: N	/A Backfill Tin			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Coarse Sand	Med. Sand	Fine Sand	
Ret	Rec (%)	80	PID	Wat	O-Dep	Gra	Clas MS	Siltv Sand w	rith Gravel. light vellow	ish brown (10YR 6/4), d	lense. dry to moist.	Gravel 51		20	25	
s					1-		Gi	angular to su no staining [	ubangular gravel and o	pobbles, rootlets, white I	hair-like fibers, no odor,				20	
					-			Total Depth	= 1.5 ft.							Ť
								Collected so	oil samples S001 and S	6001-RWQCB at 10:30	from excavation floor.					
					2-	†										
								Excavation b	backfilled 11-23-2009.							
					-	-										
					3-											
					3-	]										
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<u> </u>	_	ИW				Π_				Boring ID: HZE								_
		Diam.						th (ft): 2			Sampling - Outfall							—
Northi				170.83				t): <b>1796</b>		ob Number: 1891614			: Happy Valley Sou					_
		Date:		5-2009				e: NR		ogged By: A. Gold	_		viewed By: V. Vatha		in, P	.G.		
Orill F	inish	Date:	10-0	6-2009	9			ne: NR		orilling Contractor: En			d Instrumentation:	N/A				
Depth	1st	H ₂ O (f	t):		N/A	Da	ate / Tim	ne: N/A	D	rill Rig Type/Method:	Grab (hand sampl	ing)						
Depth	H ₂ C	) After	Drillin	g (ft): <b>I</b>	N/A	Da	ate / Tim	ne: N/A	D	riller's Name: Not a	plicable							
Comn	nent	s: <b>Loc</b>	ated i	n unp	aved	road					Well Comp. Date:	N/A	Completion	Time	e: <b>I</b>	N/A		
Samp	lers:	Gra	b sam	iple co	ollect	ted in (	6-inch s	tainless	steel sleeve		Soil Backfill Date:	N/A	Backfill Time	e:	1	N/A		
'al															Est.	% of	So	il
Sample Interval Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand	Silt/Clay
	S					- 1–		SM		h Gravel, light yellowis oangular gravel and co ill]				15	5	20	30	30
$\boxtimes$						2-			Total Depth =	2 O ff								$\vdash$
									·									
						_				samples S001 and S		35 and S	6002 and					
									SUUZ-RWQCE	B at 10:38 from excav	ation floor.							
									Excavation ba	ackfilled 11-23-2009.								
						3-	1											
						_												
						4-	-											
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						8-	1											
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						9-												
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	- 1				1 1		1 1											1

	MW				1_				Boring ID: <b>HZE</b>							—
Borehole							th (ft): 2			A Sampling - Outfall 00						
Northing			141.84				t): <b>1796</b>		Job Number: 189161		Site: Happy Valley S					
Orill Start			9-2009				e: NR		Logged By: A. Gold	-	Reviewed By: V. Va		sin, P	.G.		
Orill Finis							ne: NR		Drilling Contractor: E		Field Instrumentation	: N/A				
Depth 1s		_		N/A			ne: N/A			Grab (hand sampling	a)					_
Depth H ₂	O After	Drillin	g (ft): <b>I</b>	N/A	Da	ate / Tin	ne: N/A		Driller's Name: Not a							
Commen	ts: Fill	soil a	t surfa	ice						Well Comp. Date: N		on Time	e: l	N/A		
	: Gra	b san	ple co	ollect	ted in (	6-inch s	stainless	steel sleeve		Soil Backfill Date: N	/A Backfill T			N/A		
Sample Interval Retained Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description		Gravel	Coarse Sand	Med. Sand	Fine Sand	
8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8		<u> </u>	<u>a.</u>	^	- 1-	0	SM	Silty Sand, yorootlets, whit	ellowish brown (10YR te hair-like fibers, no c	5/4), dense to very der dor, no staining [Fill]	ise, dry to moist,	9	5	25	30	
					2-			Total Depth :	- 2 N ft							$\downarrow$
					_			Collected soi	il samples S001 and S	S001-RWQCB at 10:00	from excavation floor.					
								Excavation b	packfilled 11-23-2009.							
					3-	1										
					4	1										
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					6-	1										
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Pore!		ЛW				 	tal D -	4b /£4\- 4		Boring ID: <b>HZE</b>		00 Area						_	
Boreho								oth (ft): 1		•	Sampling - Outfall 0							_	
Northin				06.68				t): 1796	0201.65	Job Number: 189161			py Valley Sou					_	
Orill Sta				9-2009				e: NR		Logged By: A. Gold	_		By: V. Vatha		ın, P	G.			
Orill Fin								ne: NR		Drilling Contractor: E		_	umentation: I	N/A				_	
Depth 1					N/A			ne: N/A		Drill Rig Type/Method:		g)						_	
Depth F						Da	ite / Tin	ne: N/A		Driller's Name: Not a									
Comme											Well Comp. Date: N		Completion			I/A		_	
	ers:	Gra	b sam	ple co	llect	ed in 6	S-inch	stainless	steel sleeve		Soil Backfill Date: N	I/A	Backfill Time			I/A		_	
pe			(u	evel	eet)	Log	oil ation								% of p				
Sample II Retained	Sample Type	Recovery (%)	Blow Count/6"	PID (ppm)	Water Level	Depth (feet)	Graphic Log	USCS Soil Classification			Description			Gravel	Coarse Sand	Med. Sand	Fine Sand		
						0-			[See Trench	n Log ISRA-HVS-2D fo	lithology]								
×						1			Candatana	mala braum (40VD C/2)	to light valley deb brown	~ (40VD C/4)							
<b>*</b>	s								weathered, [Chatsworth	pale brown (10YR 6/3) hard, medium- to fine-on Formation]	grained, no odor, no sta	aining	,						
						_				ration Depth = 1.5 ft.	001 BWOCB at 12:05	from overve	ution						
						2-			sidewall.	oil samples S001 and S	oo i-rvv Qod al iz:05	nom excava	IIIOH						
						_			Excavation	backfilled 11-23-2009.									
						3-													
						_													
						4-													
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