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By Alameda County Environmental Health 1:58 pm, Apr 28, 2015

SOIL BORING LOGS

SOIL BORING LOG KEY

Majo	r Divisions	Sym	bols	Typical Names
		GW		Well-graded gravels or gravel-sand mixtures, little to no fines
size)	Gravels (Mb re than 50%	GP		Poorly-graded gravels or gravel-sand mixtures, little to no fines
Soils 00 sieve	coarse fraction > no. 4 sieve	GM		Silty gravels, gravel-sand-silt mixtures
Coarse Grained Soils (Morethan 1/2ofsoil-No. 200 sieve size)		GC		Clayey gravels or gravel-sand-clay mixtures
oarse G 11/2 of so		SW		Well-graded sands or gravel-sand mixtures, little to no fines
Ore than	Sands (Less than 50%	SP		poorly-graded sands or gravelly sands, little to no fines
٥	co ars fraction > no . 4	SM		Silty sands, sand-silt mixtures
		SC		Clayey sands, sand-clay mixtures
size)		ML		Inorganic silts and very fine sands, silty or clayey fine sands or clayey silts with slight plasticity
oils :00 sieve	Silts & Clays Liquid limit* less than 50%	CL		Inorganic clays of low to medium plasticity, gravelly clays, sandy or silty clays, lea clays
ained S		OL		Organic silts and organic silty clays of low plasticity
Fine Grained Soils (More fran 1/2 of soil «No. 200 sieve size)		мн		Inorganic silts, micaceous or ditomaceous fine sand or silty soils, elastic silts
F Wore than	Silts & Clays Liquid limit * greater th an 50%	СН		Inorganic clays of high plasticity, fat clays
٥		ОН		Organic clays of medium to high plasticity, organic silty clay, organic silts
Highly (Organic Soils	Pt		Peat or other highly organic soils
Fill		Concrete		Concrete

^{*}Liquid limit represents the moisture contnet (in percent) of a soil at which point the soil no longer behaves like a plastic and starts to behave like a liquid.

Based on Unified Soil Classification System and ASTM Standard D2487 and D2488

Encountered Groundwater



Groundwater, First Observed Groundwater, Static

Sample Moisture

Dry No Moisture, dry to touch
Moist Damp but no visible moisture
Wet Visible free water

Recovery

X No recoveryI Recovery

Sample Plasticity (Fine-Grained Soils)

Non-Plastic - Cannot be rolled at any moisture content

 $\ensuremath{\text{Low}}$ - Barely rolled, lump cannot be formed when drier than plastic limit

Medium - Easily rolled, lump crumbles when drier than plastic limit

High - Easily rolled yet takes considerable time to reach the plastic limit, lump can be formed without crumbling when drier than the plastic limit

Partical Size Range (Course-Grained Soils)

Gravel - Fine, Coarse Sand - Fine, Medium, Coarse

				1						
int	egral					STATION ID	MW-4A	_		
IIIC	orsating in:					PROJECT LOCATION	Allied Engineering Alameda, California	_		
115 Sansom) a St. Suite	200				PROJECT NUMBER		_		
San Francis						LOGGED BY	S. Sherman	_		
	393-4750	1101				APPROVED BY	S. Sherman, PG 9240	_ Page 1 of 3		
SAMPLE IN		ION				7.1.11.012.51	DESCRI			
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, color,	grain size range, minor constitue weathering, cementation, gr	uents, plasticity, odor, sheen, moisture content, texture		
	- Re	≣		S	<u>ပော် တ်</u> GP	GRAVEL: very dark brown		gravel, abundant rooting, few metal debris, moist		
MW-4-0.5-1.5		3.0	1		GF		ck (N 0.5), slight odor, some m	•		
WW-4-0.5-1.5		3.0	1					· ·		
										
	X		2							
	X					from 2 to 4 ft bgs void space	20			
	X		3			IIIOIII 2 to 4 it bgs void spac	J C			
	X									
		1 1	4		_					
	<u> </u>	1.1			_	at 4.5 ft bgs wet				
	<u> </u>		5	,,,,,,,,	Cı		ay (5GY 6/1), fine sand, medium	n plasticity no odor moist		
		0.4		(11111111	<u>유</u>	Janay OLAT. greenisti gla	y (OO i o/ i/, iiile saliu, iileululi	i piastiony, no odor, moist		
	<u> </u>	0.4	6		1					
	 		1	innin.	1					
	 		7		1					
	 		1		1					
	<u> </u>	2.2	8	innin	1	at 8.0 ft bgs dark greenish gray (10Y 4/1)				
			-	annin.		at 0.0 it bys daik greenish	gray (101 4/1)			
	<u> </u>		9	,,,,,,,,	1					
	<u> </u>	3.1	-	,,,,,,,,						
	<u>-</u>		10	11111	SC					
	l 2.5					Clayey SAND: greenish gr	ay (5GY 6/1), fine sand, moist			
	<u> </u>		11	******	0.0					
	!			888	SP	Poorly graded SAND: gree	nish gray (5GY 6/1), fine sand,	moist		
	<u> </u>		12	888						
	<u> </u>	1.7		888						
	<u> </u>		13	888						
	<u> </u>			888		at 13.0 ft bgs wet				
	<u> </u>		14	888		at 14.0 ft bgs light olive bro	0. FV E/2)			
	<u></u>	1.7		888		at 14.0 it bgs light olive bit	JWII (2.31 3/3)			
			15	888						
	<u>-</u>			8888						
		1.8	16	XXX						
	<u> </u>		-	888						
	<u> </u>		17							
	<u> </u>			888						
	!	1.3	18	888						
	<u> </u>			8888						
		L	19	888						
	<u> </u>		-							
	<u> </u>	2.8	20							
						COORDINATES	6060072.66495, 2107713.34989	Notes:		
DRILLING CONTRACTOR	National Direct-P			1		(Latitude, Longitude)		8" diameter borehole		
DRILLING METHOD		Stem Auge	r					Casings		
SAMPLING EQUIPMENT	Dual-tub	— <u>—</u> ре				SURFACE ELEVATION	8.83	0 ft to 12.83 ft bgs: PVC Sch. 40 blank, 0.154" w all thickness, 2"		
				1				outer diameter 12.83 ft to 22.25 ft bgs: PVC Sch. 40 screen, 0.154" w all		
DRILL START DATE		y 11, 2015		1		DATUM	NAD1983 State Plane California III	thickness, 2" outside diameter, 0.01" milled slot size		
GROUT DATE	Februar	y 12, 2015		1				Annular Material		
								0 ft to 1 ft bgs: Concrete		
								1 ft to 8 ft bgs: Type I/II Cement 8 ft to 10 ft bgs: Hydrated Medium Bentonite Chips		
								10 ft to 22.69 ft bgs: #2/16 Sand Filter Pack		
								22.69 ft to 50 ft bgs: Medium Bentonite Chips		



STATION ID MW-4A

PROJECT LOCATION Allied Engineering
Alameda, California

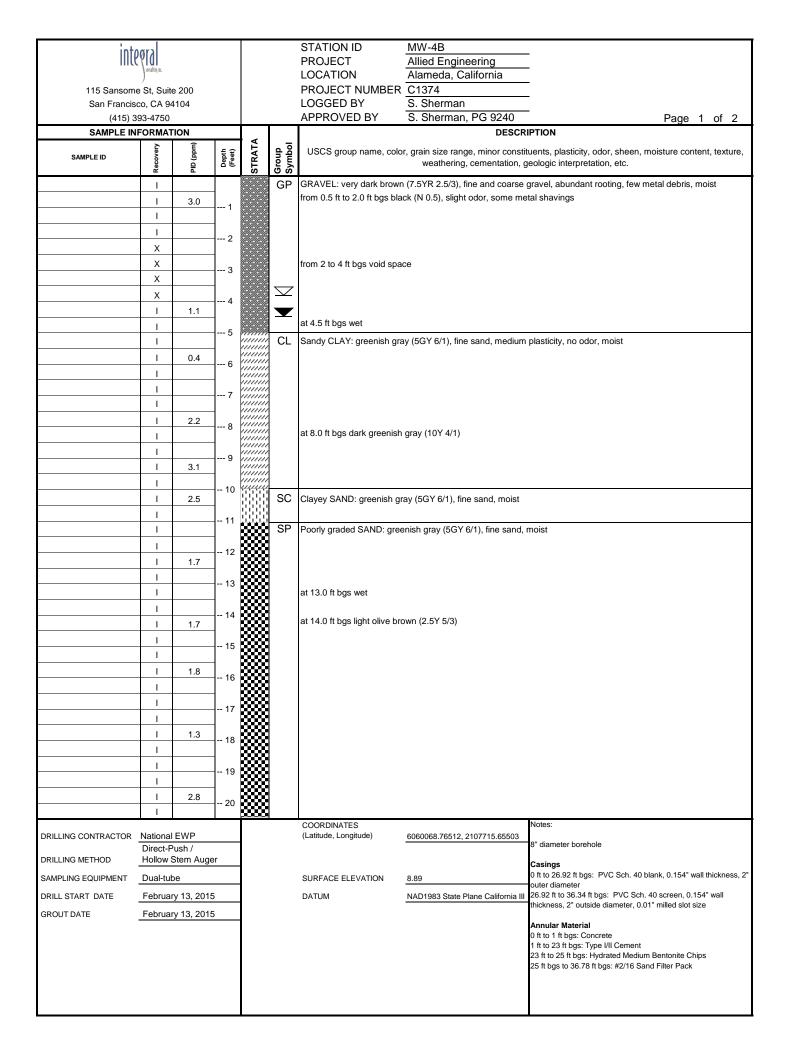
115 Sansom San Francis (415) 3						PROJECT NUMBER LOGGED BY APPROVED BY	C1374 S. Sherman S. Sherman, PG 9240	- - - Page 2 of 3
SAMPLE IN		ION					DESCRI	
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, color		uents, plasticity, odor, sheen, moisture content, textur
	1			888	SP			
	1	2.3	21	888				
	1			888		at 21.0 ft bgs greenish gra	y (5GY 6/1)	
	I		22	888				
	I			iiiiiii	CI	at 22 ft bgs increasing clay		
	1	2.1	23		CL	Sandy CLAY: greenish gra	ay (5GY 6/1), fine sand, low plas	ticity, moist
	1		24			at 23.5 ft bgs decreasing s	sand	
	1	2.3	24	innin				
	1		25					
	1				SW	Well graded SAND: light o	live brown (2.5Y 5/3), rounded to	o subrounded fine gravel and fine to medium sand, w
	1	1.1	26					
	1							
	1		27	minn	CL	Sandy CLAY: gravish brow	wn (2.5Y 5/2), fine sand, trace fin	e gravel low plasticity moist
	!	2.2	1		CL	Canay Ozirri grayion brov	WT (2.01 0/2), IIIO 04IIA, IIAO0 IIII	graves, less placetory, motor
	1	2.2	28		SP	Poorly graded SAND: light	t olive brown (2.5Y 5/3), fine san	d, wet
	' '		1	888	Oi.			
	1	2.0	29	***				
	Х		30	888				
	ı		30	888				
	1	1.8	31	3333				
	1					144 II	(0.5)(5(0)	
	I		32		SW	sand, wet	olive brown (2.5Y 5/3), rounded to	o subrounded fine gravel and fine to medium
	!	2.0						
	1		33					
	<u> </u>		1					
	i	2.9	34					
	I		25					
	Х		35					
	Х		36					
	1							
	I	2.6	37					
	I				CI	CLAY: light olive brown (5)	Y 6/2), trace fine sand, medium	plasticity moist
	1		38		CL	= =giit oiivo biowii (J	,	,
	+	2.0		11111111				
		2.0	39					
	1		10					
	Х		40					
RILLING CONTRACTOR	National	EWP				COORDINATES (Latitude, Longitude)	6060072.66495, 2107713.34989	Notes:
	Direct-P	ush /		1		.		8" diameter borehole
RILLING METHOD	Hollow S	Stem Auge	er	-				Casings
AMPLING EQUIPMENT	Dual-tub	е		-		SURFACE ELEVATION	8.83	0 ft to 12.83 ft bgs: PVC Sch. 40 blank, 0.154" wall thicknes: 2" outer diameter
RILL START DATE	Februar	y 11, 2015	5	-		DATUM	NAD1983 State Plane California III	12.83 ft to 22.25 ft bgs: PVC Sch. 40 screen, 0.154" wall thickness, 2" outside diameter, 0.01" milled slot size
ROUT DATE	Februar	y 12, 2015	5	_				Annular Material 0 ft to 1 ft bgs: Concrete 1 ft to 8 ft bgs: Type I/II Cement 8 ft to 10 ft bgs: Hydrated Medium Bentonite Chips
								10 ft to 22.69 ft bgs: #2/16 Sand Filter Pack 22.69 ft to 50 ft bgs: Medium Bentonite Chips



115 Sansome St, Suite 200 San Francisco, CA 94104 (415) 393-4750 STATION ID MW-4A
PROJECT Allied Engineering
LOCATION Alameda, California
PROJECT NUMBER C1374

LOGGED BY S. Sherman

San Francis		1104				LOGGED BY	S. Sherman	_
	393-4750					APPROVED BY	S. Sherman, PG 9240	Page 3 of 3
SAMPLE IN	FORMAT			∢	_		DESCRI	PTION
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, cold	or, grain size range, minor constitution, generated weathering, cementation, generated was a size of the constitution of the c	uents, plasticity, odor, sheen, moisture content, textueologic interpretation, etc.
	Х				CL			
	Х		11	man man man				
	Х		41					
	Х		40					
	ı	2.7	42					
	ı			,,,,,,,				
	i		43					
	ı							
	i	1.7	44					
	i	1.7		man man man		at 44.5 ft bgs abundant s	hells increasing sand	
	X		45			at The Rege abandante	none, meredering carra	
	+							
	X		46					
	X	4.0	1					
	I	1.9	47					
	l		-					
	!		48					
	!	2.4						
	1		49					
	1							
	ı	1.8	50					
						End of boring at 50 ft		
								None
LLING CONTRACTOR	National	EWP				COORDINATES (Latitude, Longitude)	6060072.66495, 2107713.34989	Notes:
20	Direct-P	ush /					. ,	8" diameter borehole
LLING METHOD	Hollow S	Stem Auge	er					Casings
MPLING EQUIPMENT	Dual-tub	е				SURFACE ELEVATION	8.83	0 ft to 12.83 ft bgs: PVC Sch. 40 blank, 0.154" wall thickne: 2" outer diameter
LL START DATE	Februar	y 11, 2015	5			DATUM	NAD1983 State Plane California III	12.83 ft to 22.25 ft bgs: PVC Sch. 40 screen, 0.154" wall
OUT DATE		y 12, 2015						thickness, 2" outside diameter, 0.01" milled slot size
	. Joinal	,, _010	-					Annular Material
								0 ft to 1 ft bgs: Concrete 1 ft to 8 ft bgs: Type I/II Cement
								8 ft to 10 ft bgs: Hydrated Medium Bentonite Chips
								10 ft to 22.69 ft bgs: #2/16 Sand Filter Pack 22.69 ft to 50 ft bgs: Medium Bentonite Chips
								Donath Compa





115 Sansome St, Suite 200 San Francisco, CA 94104

STATION ID MW-4B Allied Engineering Alameda, California PROJECT LOCATION

PROJECT NUMBER C1374
LOGGED BY S. Sherman

San Franci	sco, CA 94	1104				LOGGED BY	S. Sherman	_	
	393-4750					APPROVED BY	S. Sherman, PG 9240		Page 2 of
SAMPLE II	Recovery Recovery	ION (mdd) Old	Depth (Feet)	STRATA	Group Symbol	USCS group name, cold	DESCR or, grain size range, minor constit weathering, cementation, g	uents, plasticity, odor, sheen, m	noisture content, text
	1 1	PID		S	້ອ້ <i>ເ</i> ດີ SP		weathering, cementation, g	eologic interpretation, etc.	
	1	2.3		888	32				
	i	2.0	21	888		at 21.0 ft bgs greenish gr	ray (5GY 6/1)		
	ı		20	**					
	ı		22	333		at 22 ft bgs increasing cla	ay		
	1	2.1	23		CL	Sandy CLAY: greenish g	ray (5GY 6/1), fine sand, low plas	sticity, moist	
	I .		_						
	1	2.3	24		1	at 23.5 ft bgs decreasing	sand		
	<u> </u>	2.5							
	ı		25		SW	Well graded SAND: light	olive brown (2.5Y 5/3), rounded t	to subrounded fine gravel and fi	ine to medium sand,
	ı	1.1	26						
	1								
	1		27	ininin		Sandy CLAV: gravish hro	own (2.5Y 5/2), fine sand, trace fire	ne gravel low plasticity moist	
		2.0			CL	Sandy CEAT. grayish bic	owii (2.51 5/2), iiile sailu, trace iii	ne graver, low plasticity, moist	
	1	2.2	28	333	SP	Poorly graded SAND: ligl	ht olive brown (2.5Y 5/3), fine sar	nd, wet	
	i		20	888					
	I	2.0	29	888					
	Х		30	***					
	1			***					
	1	1.8	31	*****					
	1				sw	Well graded SAND: light	olive brown (2.5Y 5/3), rounded t	to subrounded fine gravel and fi	ine to medium
	i	2.0	32			sand, wet			
	ı		33						
	I		33						
	1		34						
	l I	2.9							
	X		35						
	X								
	ı		36						
	1	2.6	37	,,,,,,,,	CL		5Y 6/2), trace fine sand, medium	plasticity, moist	
			-			End of boring at 36.78 ft			
			1						
						000000000000000000000000000000000000000		Notes	
ILLING CONTRACTOR	National	EWP				COORDINATES (Latitude, Longitude)	6060068.76512, 2107715.65503	Notes:	
ILLING METHOD	Direct-P	ush / Stem Auge	er					8" diameter borehole	
MPLING EQUIPMENT	Dual-tub			1		SURFACE ELEVATION	8.89	Casings 0 ft to 26.92 ft bgs: PVC Sch. 40 b	olank, 0.154" wall thickn
ILL START DATE		ry 13, 2015	5	1		DATUM	-	2" outer diameter 26.92 ft to 36.34 ft bgs: PVC Sch.	
OUT DATE		y 13, 2015 y 13, 2015		1		DATOW	147D 1909 State Flatie CalliOffila III	thickness, 2" outside diameter, 0.0	01" milled slot size
OUTDATE	rebluar	y 13, 2013	<u> </u>					Annular Material 0 ft to 1 ft bgs: Concrete 1 ft to 23 ft bgs: Type I/II Cement 23 ft to 25 ft bgs: Hydrated Mediur	n Bontonito China

STATION ID MW-5A integral **PROJECT** Allied Engineering LOCATION Alameda, California PROJECT NUMBER C1374 115 Sansome St, Suite 200 LOGGED BY S. Sherman San Francisco, CA 94104 APPROVED BY S. Sherman, PG 9240 (415) 393-4750 Page 1 of 3 SAMPLE INFORMATION DESCRIPTION STRATA Group Symbol USCS group name, color, grain size range, minor constituents, plasticity, odor, sheen, moisture content, texture, Depth (Feet) SAMPLE ID $weathering, \, cementation, \, geologic \, interpretation, \, etc. \,$ <u>e</u> Clayey GRAVEL with sand: yellowish brown (10YR 5/6), angular fine to coarse sand and fine to coarse 1 gravel, moist 1 0.1 Χ Χ -- 2 Χ Χ -- 3 Χ 1 0.1 at 4.9 ft bgs wet -- 5 Χ Χ -- 6 Χ Χ Χ Χ 8 I 0.1 ī Clayey SAND: grayish brown (2.5Y 5/2), fine sand, wet 1 1 0.4 Ī Poorly graded SAND: grayish brown (2.5Y 5/2), rounded fine sand, wet 1 1 12 1 0.1 I - 13 ı 14 at 14.0 ft bgs light olive brown (2.5Y 5/4) 1 15 I 1 - 16 1 I 17 0.6 I 18 1 1 19 1 0.3 20 at 20.0 ft bgs greenish gray (10Y 6/1) Notes: COORDINATES DRILLING CONTRACTOR National EWP (Latitude, Longitude) 6059943.34402, 2107795.81916 8" diameter borehole Direct-Push / DRILLING METHOD Hollow Stem Auger Casings 0 ft to 14.54 ft bgs: PVC Sch. 40 blank, 0.154" wall thickness, SAMPLING EQUIPMENT SURFACE ELEVATION Dual-tube 10.64 2" outer diameter 14.54 ft to 23.96 ft bgs: PVC Sch. 40 screen, 0.154" wall DRILL START DATE DATUM February 17, 2015 NAD1983 State Plane California III

GROUT DATE

February 18, 2015

thickness, 2" outside diameter, 0.01" milled slot size

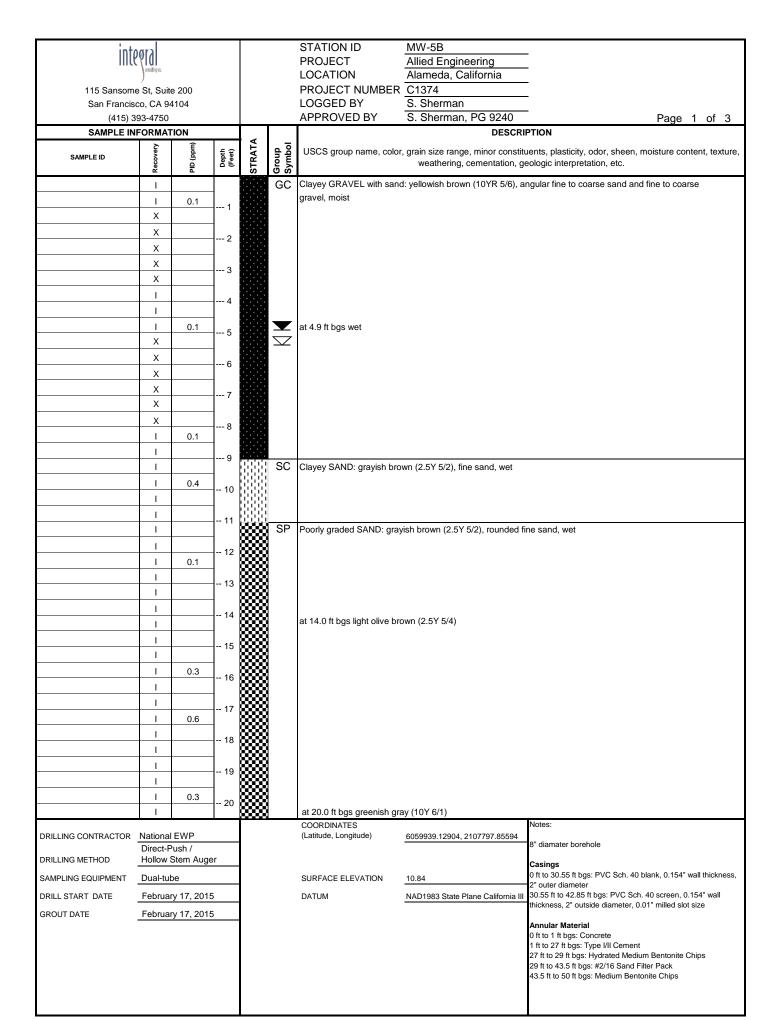
10.5 ft to 12.5 ft bgs: Hydrated Medium Bentonite Chips 12.5 ft to 24.4 ft bgs: #2/16 Sand Filter Pack

Annular Material 0 ft to 1 ft bgs: Concrete 1 ft to 10.5 ft bgs: Type I/II Cement



STATION ID MW-5A
PROJECT Allied Engineering
LOCATION Alameda, California
PROJECT NUMBER C1374

)					LOCATION	Alameda, California	_
115 Sansom						PROJECT NUMBER		-
San Francis		4104				LOGGED BY	S. Sherman S. Sherman, PG 9240	-
SAMPLE IN	93-4750	FION				APPROVED BY	5. Sherman, PG 9240 DESCRII	Page 2 of 3
SAMPLE	1			. Ā	- 6			
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, colo	r, grain size range, minor constitu weathering, cementation, ge	uents, plasticity, odor, sheen, moisture content, texture ologic interpretation, etc.
	- 1				SP			
	I	0.2	21					
	- 1		21					
	- 1		22					
	1							
	1		23		SC	Clayey SAND: greenish g	ray (10Y 6/1), fine sand, wet	
	ı							
	1	0	24					
	1							
			25			End of boring at 24.4 ft		
	1		1					
			-					
			-					
			-					
			-					
	1		-					
			-					
			_					
			-					
			1					
			1					
	1		1					
			1					
			1					
	1		1					
			•			COORDINATES		Notes:
ILLING CONTRACTOR	National Direct-F					(Latitude, Longitude)	6059943.34402, 2107795.81916	8" diameter borehole
ILLING METHOD		Stem Auge	er					Casings
MPLING EQUIPMENT	Dual-tul					SURFACE ELEVATION	10.64	0 ft to 14.54 ft bgs: PVC Sch. 40 blank, 0.154" wall thicknes
ILL START DATE		ry 17, 2015				DATUM		2" outer diameter 14.54 ft to 23.96 ft bgs: PVC Sch. 40 screen, 0.154" wall
						DATOW	MAD 1903 State Flatie California III	thickness, 2" outside diameter, 0.01" milled slot size
OUT DATE	Februa	ry 18, 2015)					Annular Material
								0 ft to 1 ft bgs: Concrete
								1 ft to 10.5 ft bgs: Type I/II Cement 10.5 ft to 12.5 ft bgs: Hydrated Medium Bentonite Chips
								12.5 ft to 24.4 ft bgs: #2/16 Sand Filter Pack





STATION ID MW-5B PROJECT LOCATION Allied Engineering Alameda, California

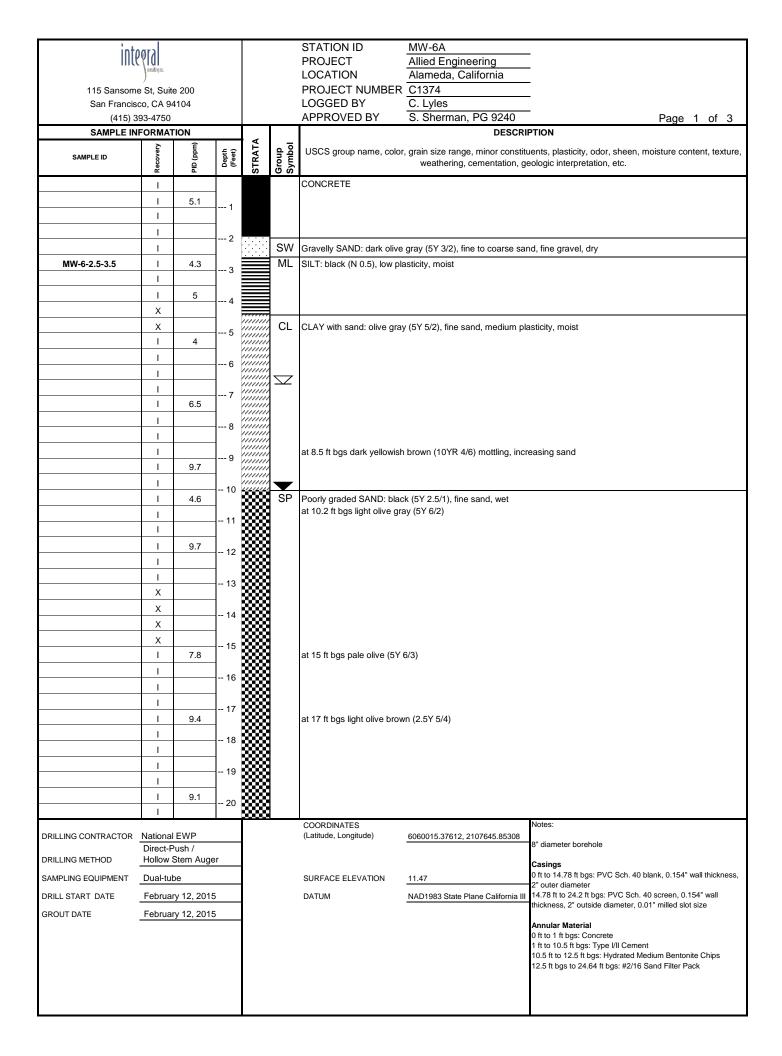
115 Sansom	e St, Suit	e 200				PROJECT NUMBER C1374
San Francis						LOGGED BY S. Sherman
(415) 3	93-4750					APPROVED BY S. Sherman, PG 9240 Page 2 of 3
SAMPLE IN	FORMAT		_		_	DESCRIPTION
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, color, grain size range, minor constituents, plasticity, odor, sheen, moisture content, texture, weathering, cementation, geologic interpretation, etc.
	I			***	SP	
	1	0.2	21	XXX		
	1			888		
	1		22	888		
	1					
	l		23		SC	Clayey SAND: greenish gray (10Y 6/1), fine sand, wet
	ΤĖ	0				
	i	-	24			
	1	0.1	25		CL	Sandy CLAY: dark greenish gray (5GY 4/1), fine sand, medium plasticity, moist
	- 1		23			at 25.0 ft bgs decreasing sand
	- 1	0.1	26			
	I					
	1	0.4	27			
	1	0.1				
	l I		28			
	<u> </u>					
	ı		29			at 29.0 ft bgs light greenish gray (10Y 7/1)
	- 1	0.1	30			
	- 1		30	協能	sc	Clayey SAND: grayish brown (2.5Y 5/2), fine sand, moist
	- 1	0.1	31			
	I			mmi	SP	Poorly graded SAND: grayish brown (2.5Y 5/2), fine sand, wet CLAY with sand: grayish brown (2.5Y 5/2), fine sand, low plasticity, moist
	<u> </u>		32		CL	
	I	0.1				at 32 ft bgs increasing fine gravel and fine to coarse sand
			33	uuuu	SW	Well graded SAND: grayish brown (2.5Y 5/2), rounded fine to coarse sand, trace subangular gravel, wet
	i					The grades of the grafier of the first of the grades of the grade grade grade, not
	ı		34			
	1	0.1	35			
	Х		33			
	Х		36			
	Х					
	X		37			
		0.2				
	1	0.2	38			
	i		39			
	I		39			
	I	0.2	40			
	I					COORDINATES Notes:
DRILLING CONTRACTOR				1		(Latitude, Longitude) 6059939.12904, 2107797.85594
DRILLING METHOD	Direct-F		er -			8" diamater borehole
SAMPLING EQUIPMENT	Hollow Stem Auger			1		Casings SURFACE ELEVATION 10.84 0 ft to 30.55 ft bgs: PVC Sch. 40 blank, 0.154" wall thickness,
DRILL START DATE	Dual-tube February 17, 2015			1		DATUM NAD1983 State Plane California III 30.55 ft to 42.85 ft bgs: PVC Sch. 40 screen, 0.154" wall
	February 17, 2015 February 17, 2015			1		thickness, 2" outside diameter, 0.01" milled slot size
GROUT DATE	rebrua	iy i <i>1</i> , 2015	,	1		Annular Material
						0 ft to 1 ft bgs: Concrete 1 ft to 27 ft bgs: Type I/II Cement
						27 ft to 29 ft bgs: Hydrated Medium Bentonite Chips 29 ft to 43.5 ft bgs: #2/16 Sand Filter Pack
						43.5 ft to 50 ft bgs: Medium Bentonite Chips



115 Sansome St, Suite 200

STATION ID MW-5B Allied Engineering Alameda, California PROJECT LOCATION PROJECT NUMBER C1374

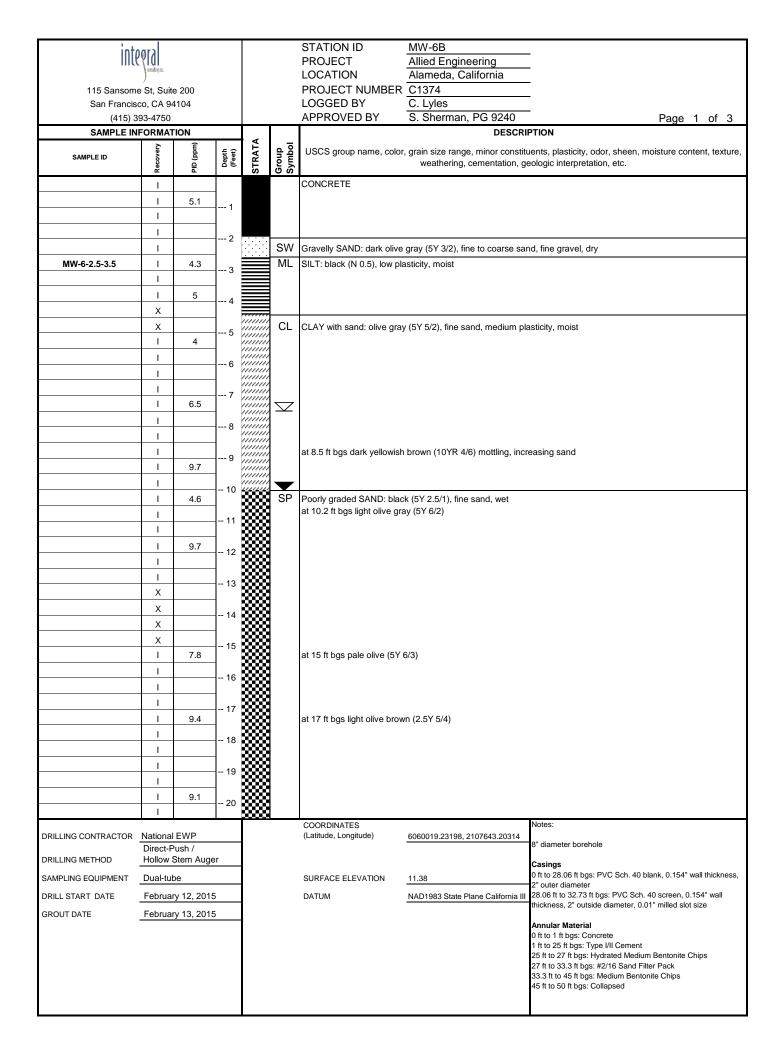
San Francis	co, CA 9					LOGGED BY	S. Sherman	- -
	93-4750					APPROVED BY	S. Sherman, PG 9240	Page 3 of 3
SAMPLE IN			T	⋖	_		DESCRI	
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, colo	or, grain size range, minor constitu weathering, cementation, ge	uents, plasticity, odor, sheen, moisture content, textueologic interpretation, etc.
	Х				SW			
	Х		41					
	Х							
	Х		42					
	X							
	X I		43					
	 '			ininini	CL	Sandy CL AV: gravish hro	own (2.5Y 5/2), fine sand, medium	a plasticity, moist
	i i	0.1	44		0_	Carlay CEAT. grayish bit	7WIT (2.31 3/2), TITIC 3atia, Titediani	i plasticity, most
	ı		45					
	I		45					
	- 1		46					
	I	0.1						
	1	0.4	47					
		0.1						
			48					
	i		1					
	i	0.1	49			at 49 ft bgs abundant she	ells	
	ı		50					
] 50			End of boring at 50 ft		
			_					
	1					COORDINATES		Notes:
RILLING CONTRACTOR						(Latitude, Longitude)	6059939.12904, 2107797.85594	8" diamater borehole
RILLING METHOD	Direct-F Hollow	Push / Stem Auge	er					
AMPLING EQUIPMENT	Dual-tul			1		SURFACE ELEVATION	10.84	Casings 0 ft to 30.55 ft bgs: PVC Sch. 40 blank, 0.154" wall thicknes
RILL START DATE		ry 17, 2015	5	1		DATUM		2" outer diameter 30.55 ft to 42.85 ft bgs: PVC Sch. 40 screen, 0.154" wall
ROUT DATE		ry 17, 2015		1		-		thickness, 2" outside diameter, 0.01" milled slot size
	. Joiua	., ., 2010	-	1				Annular Material
								0 ft to 1 ft bgs: Concrete 1 ft to 27 ft bgs: Type I/II Cement
								27 ft to 29 ft bgs: Hydrated Medium Bentonite Chips 29 ft to 43.5 ft bgs: #2/16 Sand Filter Pack
								43.5 ft to 50 ft bgs: Medium Bentonite Chips





STATION ID MW-6A
PROJECT Allied Engineering
LOCATION Alameda, California
PROJECT NUMBER C1374

115 Sansom San Francis (415) 3		4104				PROJECT NUMBER LOGGED BY APPROVED BY	C1374 C. Lyles S. Sherman, PG 9240	- - - Page 2 of 3
SAMPLE IN						7	DESCRI	
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, colo		uents, plasticity, odor, sheen, moisture content, texture
	ı			888	SP			
	- 1	5.1	21	888				
	- 1			888				
	1		22	888				
		5.2		888				
	 '		23	888				
	ı		24	888				
	ı		24	***				
	ı	6.7	25	,,,,,,,,			1), fine sand, low plasticity, moist	i
						End of boring at 24.64 ft		
			1					
	1		-					
	1		1					
	1		1					
DILLING CONTENTS	Net:	LEWB			•	COORDINATES	0000045 07010 010	Notes:
RILLING CONTRACTOR	National Direct-F			1		(Latitude, Longitude)	6060015.37612, 2107645.85308	8" diameter borehole
RILLING METHOD		Stem Auge	er					Casings
AMPLING EQUIPMENT	Dual-tul	be				SURFACE ELEVATION	11.47	0 ft to 14.78 ft bgs: PVC Sch. 40 blank, 0.154" wall thicknes: 2" outer diameter
RILL START DATE	Februa	ry 12, 2015	5			DATUM	NAD1983 State Plane California III	14.78 ft to 24.2 ft bgs: PVC Sch. 40 screen, 0.154" wall thickness, 2" outside diameter, 0.01" milled slot size
ROUT DATE	Februa	ry 12, 2015	5					
								Annular Material 0 ft to 1 ft bgs: Concrete
								1 ft to 10.5 ft bgs: Type I/II Cement 10.5 ft to 12.5 ft bgs: Hydrated Medium Bentonite Chips
								12.5 ft bgs to 24.64 ft bgs: #2/16 Sand Filter Pack





115 Sansome St, Suite 200

STATION ID MW-6B Allied Engineering Alameda, California PROJECT LOCATION PROJECT NUMBER C1374

115 Sansom	e St, Suit	e 200				PROJECT NUMBER C1374
San Francis	co, CA 9	4104				LOGGED BY C. Lyles
(415) 3	93-4750					APPROVED BY S. Sherman, PG 9240 Page 2 of 3
SAMPLE IN	FORMAT	ΓΙΟΝ		İ		DESCRIPTION
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, color, grain size range, minor constituents, plasticity, odor, sheen, moisture content, texture, weathering, cementation, geologic interpretation, etc.
	ı			3333	SP	
	1	5.1	1	888		
	i	0	21	XXX		
	ı		1	888		
		5.2	22	888		
	i i	0.2	1	888		
	ΙĖ		23	888		
				888		
	l i		24	888		
	T i	6.7	1	,,,,,,,	CL	Sandy CLAY: gray (5Y 5/1), fine sand, low plasticity, moist
	l i	0.7	25		-	Salay SEAT. gray (ST 677), III Salad, ISM placeboxy, Holist
	1	4.8	1	11111111		
	l i	1.0	26			at 26 ft bgs increasing sand
	i		1			at 20 it bgs moreasing sand
	<u> </u>		27	11111111		
		5.2	1		SC	Clayey SAND with gravel: greenish gray (10Y 6/1), subrounded fine to coarse sand and fine gravel,
	<u> </u>	J.2	28			low plasticity, moist
	i i		1			
	i		29			
		5.1	1	11111111	CL	CLAY: grayish brown (2.5Y 5/2), low plasticity, moist
	l i	0.1	30		-	SECT. grayion brown (2.01 6/2), our placeboxy, motor
	l i	5	1	innin		
	<u> </u>	J	31			at 31 ft bgs light olive brown (2.5Y 5/4), medium plasticity, moist
	T i		1	11111111		at or it ago light sin a statin (2.6 t or 1), modulin processity, mod
	T i		32			
	 '	0.6		10000		
	l i	0.0	33			
			1			
	l i		34			at 34 ft bgs few subrounded fine gravels, moist
	l i	1.9				
	<u> </u>	1.5	35	11111111		
	l i	1.7				
	l i	1.7	36	11111111		
	 '		1			
	<u> </u>	2.2	37	innin		
	1	3.2	1			
	1		38	11111111		
	'	 	1			
	<u> </u>	 	39	11111111		from 39 to 42 ft bgs few shell fragments
	 '	3.2	1	11111111		The state of the s
	 '	J.2	40			
	1 '	1	ı	,,,,,,,,,	<u> </u>	COORDINATES Notes:
DRILLING CONTRACTOR				-		(Latitude, Longitude) 6060019.23198, 2107643.20314 8" diameter borehole
DRILLING METHOD	Direct-F Hollow	² ush / Stem Auge	er			
SAMPLING EQUIPMENT				1		Casings SURFACE ELEVATION 11.38 0f tt to 28.06 ft bgs: PVC Sch. 40 blank, 0.154" wall thickness,
	Dual-tube			1		2" outer diameter
DRILL START DATE	February 12, 2015					DATUM NAD1983 State Plane California III 28.06 ft to 32.73 ft bgs: PVC Sch. 40 screen, 0.154" wall thickness, 2" outside diameter, 0.01" milled slot size
GROUT DATE	Februa	ry 13, 2015	5	-		Annular Material
						0 ft to 1 ft bgs: Concrete
						1 ft to 25 ft bgs: Type I/II Cement 25 ft to 27 ft bgs: Hydrated Medium Bentonite Chips
						27 ft to 33.3 ft bgs: #2/16 Sand Filter Pack
						33.3 ft to 45 ft bgs: Medium Bentonite Chips 45 ft to 50 ft bgs: Collapsed
						o i. o o o i. o go. o o iiupoo d



115 Sansome St, Suite 200

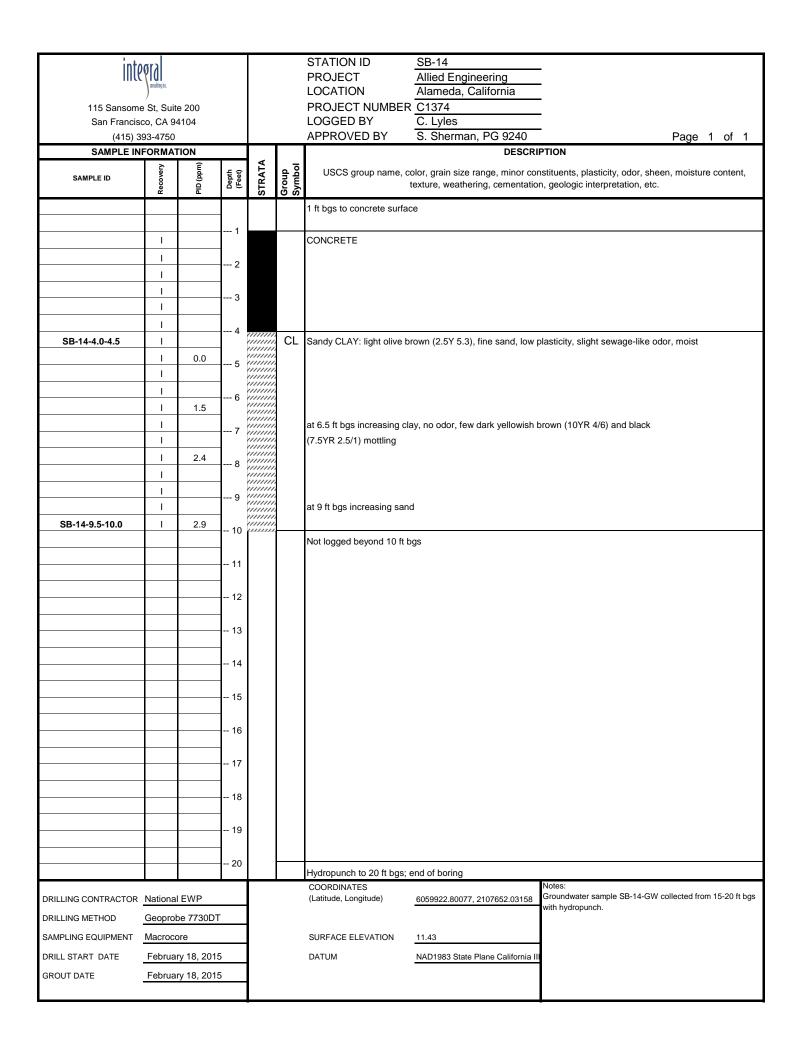
STATION ID MW-6B Allied Engineering Alameda, California PROJECT LOCATION PROJECT NUMBER C1374

115 Sansom						LOGGED BY C Lylos	
San Francis		4104				LOGGED BY APPROVED BY C. Lyles S. Sherman, PG 92	240 Page 2 of 2
SAMPLE IN	93-4750 FORMA	ΓΙΟΝ			I		240 Page 3 of 3 ESCRIPTION
SAMPLE ID	1		æ æ	STRATA	d p	USCS group name, color, grain size range, minor o	constituents, plasticity, odor, sheen, moisture content, texture,
SAMELL ID	Recovery	PID (ppm)	Depth (Feet)	~~~~~	Group Symbol		tion, geologic interpretation, etc.
	- 1				CL		
	 	0.5	41				
	1	3.5					
	1		42				
			1	1111111			
	i	3.0	43				
	1		1	11111111			
	Х		44				
	Х		45				
	Х		43				
	Х		46				
	Х						
	X		47		1	No receiver, from 45 to 50 ft has due to broken inne	ar againg
	X		-	1111111		No recovery from 45 to 50 ft bgs due to broken inne	er casing
	X		48				
	X						
	X		49				
	Х						
			50			End of boring at 50 ft bgs	
			1				
			1				
			1				
			1				
			1				
			1				
			1				
			-				
	1		1				
			L				
DRILLING CONTRACTOR	Nationa	IEWP				COORDINATES (Latitude, Longitude) 6060019.23198, 2107643.2	Notes:
	Direct-F	Push /		1			8" diameter borehole
DRILLING METHOD		Stem Auge	er	1			Casings
SAMPLING EQUIPMENT	Dual-tu			-		SURFACE ELEVATION 11.38	0 ft to 28.06 ft bgs: PVC Sch. 40 blank, 0.154" wall thickness, 2" outer diameter
DRILL START DATE		ry 12, 201		4		DATUM NAD1983 State Plane Califo	ornia III 28.06 ft to 32.73 ft bgs: PVC Sch. 40 screen, 0.154" wall thickness, 2" outside diameter, 0.01" milled slot size
GROUT DATE	Februa	ry 13, 201	5	-			
							Annular Material 0 ft to 1 ft bgs: Concrete
							1 ft to 25 ft bgs: Type I/II Cement 25 ft to 27 ft bgs: Hydrated Medium Bentonite Chips
							27 ft to 33.3 ft bgs: #2/16 Sand Filter Pack 33.3 ft to 45 ft bgs: Medium Bentonite Chips
							45 ft to 50 ft bgs: Collapsed

into	الماق					_	SB-11	•
JIII	ansilfra inc						Allied Engineering	•
)					_	Alameda, California	-
115 Sansome						PROJECT NUMBER		•
San Francisc		4104					S. Sherman	
(415) 39						APPROVED BY	S. Sherman, PG 9240	Page 1 of 1
SAMPLE INF				<	_		DESCRI	PTION
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol			stituents, plasticity, odor, sheen, moisture content,
	Rec	읕	9 €	STE	Syr.	te	exture, weathering, cementation	n, geologic interpretation, etc.
	ı					CONCRETE		
	ı		١.					
	ı		1					
	1	1.2			ML	Sandy SILT: very dark gray	rish brown (10YR 3/2), low plas	sticity, moist
SB-11-2.0-2.5	i	1.2	2					
3B-11-2.0-2.3	<u>'</u>	1.0						
	'	1.0	3			at 2.0 ft has block (N.0.5)		
	'					at 3.0 ft bgs black (N 0.5)		
			4					
	I		-	*****	<u> </u>			
	I	0.5	5		CL	CLAY: dark gray (5Y 4/1), r	medium plasticity, moist	
	I		1]			
	ı		6		1	at 5.5 ft bgs increasing san	d	
	I	1.7	1		1	at 6 ft bgs olive gray (5Y 5/2	2), decreasing sand	
	I		7		1			
	- 1			anni.				
		2.0	۰					
	I		8		1	at 8 ft bgs dark yellowish br	rown (10YR 4/6) mottling	
	ı				1	,	, , ,	
			9	anni	1			
SB-11-9.5-10.0	ı	2.0				at 9.5 ft bgs increasing san	d	
02 11 0.0 10.0		2.0	10	anna.		Not logged beyond 10 ft bg		
						Not logged beyond To It bg	3	
			11					
			1					
			12					
			13					
			14					
			1					
			15					
			1					
			16					
			``					
			17					
] ''					
			40					
			18					
			1					
			19					
			1					
			20			Hydropunch to 20 ft bgs; er	nd of boring	
						COORDINATES		Notes:
DRILLING CONTRACTOR	National	IEWP				(Latitude, Longitude)	6059903.862, 2107755.373	Sample SB-11-GW groundwater hydropunch sample
DRILLING METHOD	Geoprob	be 7730DT	-	J				collected from 15-20 ft bgs.
SAMPLING EQUIPMENT	Macroco	ore				SURFACE ELEVATION	11.43	
DRILL START DATE	ry 19, 201	5	1		-	NAD1983 State Plane California III		
,				1		DATONI I	INDUSOS SIAIR PIANE CAMOMIA III	
GROUT DATE	Februa	ry 19, 2015)	-				

into	ogral -	_				STATION ID	SB-12	
ınte	WICH THE STATE OF					PROJECT	Allied Engineering	_
) wishing it.					LOCATION	Alameda, California	_
115 Sansome	e St, Suit	e 200				PROJECT NUMBER		_
San Francis	co, CA 94	4104				LOGGED BY	C. Lyles	_
(415) 3	93-4750					APPROVED BY	S. Sherman, PG 9240	Page 1 of 1
SAMPLE IN	FORMAT						DESCRI	
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol		olor, grain size range, minor cor exture, weathering, cementatio	nstituents, plasticity, odor, sheen, moisture content, in, geologic interpretation, etc.
	I					CONCRETE		
	1	0.0	1.		ML			ew subangular gravels, low plasticity, moist
	ı		1			from 1.25 ft to 1.5 ft bgs a	bundant poorly graded fine grav	vel
			2			at 1.5 ft bgs hydrocarbon-	like odor in material that is blac	k (7.5 YR 2.5/1)
			1					
SB-12-2.5-3.5	1	1.9	3					
	I		1		1	at 3.0 ft bgs black (10YR 2	2/1), medium to coarse sand. st	trong hydrocarbon-like odor, few glass fragments
	Ţ		4					
	ı]					
	ı	0.5	_					
	ı		5					
	1		1					
		0.4	6	0000	<u></u>	CLAY with	. (40VD 4/4) #==== !!	atiality manufacta bustonessis at 1915
	1	0.1	1		CL	CLAY with sand: dark gra	y (IUYK 4/1), tine sand, low pla	sticity, moderate hydrocarbon-like odor, moist
	- 1		7	,,,,,,,	1			
	ı		1		1			
	ı	0.0	8		1			
	ı]	at 8 ft bgs brown (10YR 5	(3), few to some dark yellowish	brown (10YR 4/6) mottling
	1		1		}			
	<u>'</u>		9		}			
	-	0.0	1		1			
	1	0.0	10		1			
	Х		1		1			
	I		11		ML	Sandy SILT: yellowish bro	wn (10YR 5/4), fine sand, low p	plasticity, no odor, moist
SB-12-11.0-12.0	I	0.1]					
	1		12		1			
	ı		12					
	ı		1		$\overline{}$	at 12.5 ft bgs increasing s	and	
	i	0	13	333	SP		owish brown (10YR 5/4), fine sa	and, wet
			1	XXX] -	, g , o , o , o ,		······································
	I		14	3333	•			
	1		1	888	}			
	I		15	888				
	I	0	1	888				
]			End of boring at 15.5 ft bg	S	
	<u>l</u> .]					
			1					
			1					
			1					
	1		1					
			1					
			1					
]					
						COORDINATES		Notes:
DRILLING CONTRACTOR	National	IEWP		ŀ		(Latitude, Longitude)	6059903.862, 2107755.373	Groundwater sample SB-12-GW collected using installed temporary well.
DRILLING METHOD	Geoprob	oe 7730DT	-					
SAMPLING EQUIPMENT	Macroco	ore				SURFACE ELEVATION	11.43	No LNAPL observed in temporary well.
				1				1
DRILL START DATE	Februa	ry 13, 2015)	ł		DATUM	NAD1983 State Plane California II	1
GROUT DATE	Februa	ry 13, 2015	5	l				
		_						
								•

intr	gra					STATION ID	SB-13	_		
Inte	CYIUI ausilingina					PROJECT	Allied Engineering	<u> </u>		
)					LOCATION	Alameda, California	<u></u>		
115 Sansome						PROJECT NUMBER	<u> </u>			
San Francis		4104				LOGGED BY APPROVED BY	C. Lyles S. Sherman, PG 9240			
SAMPLE IN	93-4750	TION			Ī	APPROVED BY		Page 1 of 1		
SAMPLE ID	Recovery	PID (mqq) QIA	Depth (Feet)	STRATA	Group Symbol	DESCRIPTION USCS group name, color, grain size range, minor constituents, plasticity, odor, sheen, moisture content, texture, weathering, cementation, geologic interpretation, etc.				
	ě			·ίν	ΘŴ	1 ft bgs to concrete surfa	ice			
			1			CONCRETE				
						CONCRETE				
	1		2							
	I .		1							
	1		3		N 41					
SB-13-3.0-4.0	I		1		ML	SILT with sand: black (N moist	0.5), fine sand, some gray (2.	5Y 5.1), low plasticity, strong hydrocarbon-like odor,		
	- 1	34.2	4			IIIOISI				
	I		4							
	- 1		5							
	I		1							
	1	30.1	6							
	Х] ັ							
	Х		7							
	Х					at 7 ft bgs gray (5Y 5/1),	increasing sand			
	Х		1							
	1		8	11111111	CL	CLAY with sand: gray (5)	Y 5/1), fine sand, low plasticity	, strong hydrocarbon-like odor, moist		
	i	12.8	1	00000	1 -					
	1	12.0	9		1					
	<u> </u>				1					
		0.0	10	00000	1	f 40 ft t- 40 ft b d-	-l II : - l. l (40)/D. 4/0)			
	1	3.0	1			from 10 ft to 13 ft bgs da	rk yellowish brown (10YR 4/6)	motuing		
	I		11		1					
			1		1					
	1		12	8888	0.0					
SB-13-12.0-13.0	1	0.1	-	***	SP	Poorly graded SAND: yel no odor, moist	llowish brown (10YR 5/4), fine	sand, dark yellowish brown (10YR 4/6) mottling,		
	1		13	<u> </u>	N/I		(40/5 4/0)			
	I		-		IVIL	SILT with sand: dark yell	owish brown (10YR 4/4), low p	plasticity, moist		
	1	2.0	14		 					
	I.		4	0000	\sqrt{Z}					
	- 1		15	****	SP	Poorly graded SAND: gra	ay (5Y 5/1), fine sand, wet			
	1		1	XXX	}					
	1	0.4	16	888						
	- 1		1	****	1					
	- 1		17	XXX	}					
	1		1	888	1	at 17 ft bgs yellowish bro	wn (10YR 5/4)			
	- 1	0.0	18	XXX	<u> </u>					
						End of boring at 18 ft bgs				
]							
			1							
			1							
			1							
			•			COORDINATES		Notes:		
						(Latitude, Longitude)	6059903.862, 2107755.373	Groundwater sample SB-13-GW collected using installed temporary well.		
DRILLING CONTRACTOR	National	IEWP		-						
		I EWP De 7730DT	Γ	1						
DRILLING METHOD		oe 7730DT	Γ			SURFACE ELEVATION	11.43	No LNAPL observed in temporary well.		
DRILLING METHOD SAMPLING EQUIPMENT	Geoprob	oe 7730DT ore		<u>-</u>				No LNAPL observed in temporary well.		
DRILLING METHOD	Macroco Februar	oe 7730DT	5			SURFACE ELEVATION DATUM	11.43 NAD1983 State Plane California	No LNAPL observed in temporary well.		



into	αra					STATION ID SB-15
Inte	YIOI					PROJECT Allied Engineering
	ansulting inc					LOCATION Alameda, California
11E Consome	/ . C4 Cuit	- 200				PROJECT NUMBER C1374
115 Sansome						LOGGED BY C. Lyles
San Franciso		1104				
	93-4750					APPROVED BY S. Sherman, PG 9240 Page 1 of 1
SAMPLE IN	FORMAT					DESCRIPTION
	ery	(m d	モ 윤	∤	d Pool	USCS group name, color, grain size range, minor constituents, plasticity, odor, sheen, moisture content,
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	texture, weathering, cementation, geologic interpretation, etc.
	ď			Ś	S	
						1 ft bgs to concrete surface
			1			
	1					CONCRETE
	ı					
			2			
	I					
	I		3			
	I					
	ı					
	Х		4			no recovery; operator noted gravel base rock likely present from 4.0 to 4.5 ft bgs
			1		$\frac{\sqrt{7}}{\text{C'}}$	
	. I		5		CL	Sandy CLAY: dark greenish gray (10Y 4/1), fine sand, low plasticity, sewage-like odor, wet
SB-15-5.0-5.5	I	7.5				
	I		6			
	1		ľ			
	1					
	i	0.5	7			at 7 ft bgs grayish brown (2.5Y 5/2), increasing clay, no odor, moist
		0.0	1			
	I		8			
	I					
	I		9			
	I	0.2				
SB-15-9.5-10.0	ı		1			
			10			Not logged beyond 10 ft bgs
						The regged boyond to trogge
			11			
			12			
			40			
			13			
			14			
			1			
			15			
			16			
			10			
			1			
			17			
			18			
			19			
-			19			
			1			
			20			Hydropunch to 20 ft bgs; end of boring
	Į		l			COORDINATES Notes:
DRILLING CONTRACTOR	National	EWP				(Latitude, Longitude) 6059922.80077, 2107652.03158 Groundwater sample SB-15-GW collected from 15-20 ft bgs
				1		with hydropunch.
		oe 7730DT		ł		
SAMPLING EQUIPMENT	Macroco	ore		Į.		SURFACE ELEVATION 11.43
DRILL START DATE	Februar	ry 18, 2015	5			DATUM NAD1983 State Plane California III
GROUT DATE		ry 18, 2015		1		
GROUT DATE	reblual	y 10, 2015	,	1		

				ī						
inte	oral					STATION ID	SB-16	_		
IIIU	. (TUT ansilfinjin:					PROJECT LOCATION	Allied Engineering Alameda, California	_		
115 Sansome) }	e 200				PROJECT NUMBER		_		
San Francis						LOGGED BY	C. Lyles	_		
	93-4750					APPROVED BY	S. Sherman, PG 9240	– Page 1 of 1		
SAMPLE IN		ΓΙΟΝ					DESCRIPTION			
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, o	color, grain size range, minor co texture, weathering, cementation	onstituents, plasticity, odor, sheen, moisture content, on, geologic interpretation, etc.		
						1 ft bgs to concrete surfa	се			
			1			CONCRETE				
	1					0011011212				
	'		2							
	<u>'</u>		1							
SB-16-3.0-3.5	i i		3		ML	SILT: black (N 0.5). low r	plasticity, strong hydrocarbon-lik	ke odor, moist		
	ı	2.0	1		l	from 3.0 ft to 3.2 ft bgs N		,		
	<u>'</u>	2.0	4				ight hydrocarbon-like odor, no f	NAPI		
		0.0	1				g fine sand, dark greenish gray			
	1	0.0	5	,,,,,,,,	CL		ish gray (10Y 4/1), fine sand, lo			
	<u>'</u>	8.4	1			zana, sant green	g. a, (. o i . i, i, iiiio oaiia, io	<u></u>		
	ı	ö. 4	6		1					
	! !		1]					
	! 	0.4	7		1					
	! !	0.4	1		1					
			8							
	<u> </u>		1		1					
			9		1					
CD 40 0 5 40 0		2.4			SC	Clovey CAND:	our /2 EV E/2\ fine t	Nork vellourish brown (40VD 4/0) as d		
SB-16-9.5-10.0	-	2.1	10		30	Clayey SAND: grayish broblack (7.5YR 2.5/1) mottl		dark yellowish brown (10YR 4/6) and		
	<u> </u>		1				5 ,			
	I	2.1	11			at 11 ft bgs increasing sil	t and sand			
		۷.۱	1			at i i it bys ilicreasing sil	t and Sand			
	- 1		12							
	I	0.0	1							
	1	0.3	13		SP	Poorly graded SAND: do	rk greenish gray (10Y 4/1), wet			
			-	888	٥٦	i Johy graded SAND: dal	in greenish gray (101 4/1), Wet			
	<u> </u>	4.4	14	888	1	at 4.4 ft have allow 1	0 EV 4/0)			
	<u> </u>	1.1	1	;;;; ;	1	at 14 ft bgs olive brown (2	2.31 4/3)			
	l v		15	p0000		Not logged hovered 45 ft	hac			
	X		1			Not logged beyond 15 ft l	uys			
	X		16							
	X		1							
	X		17							
	X		1							
	X		18							
	X		1							
	X		19							
	X		1							
	Х		20			End of horing at 20 ft has				
	<u> </u>				<u> </u>	End of boring at 20 ft bgs COORDINATES	•	Groundwater sample SB-16-GW collected using installed		
DRILLING CONTRACTOR	National	IEWP		J		(Latitude, Longitude)	6059870.91698, 2107687.7129	temporary well.		
DRILLING METHOD	Geoprob	oe 7730DT						No LNAPL observed in temporary well.		
SAMPLING EQUIPMENT	Macroco			1		SURFACE ELEVATION	11.43			
			-	1				<u></u>		
DRILL START DATE		ry 18, 2015		1		DATUM	NAD1983 State Plane California I			
GROUT DATE	Februa	ry 18, 2015	5	1						

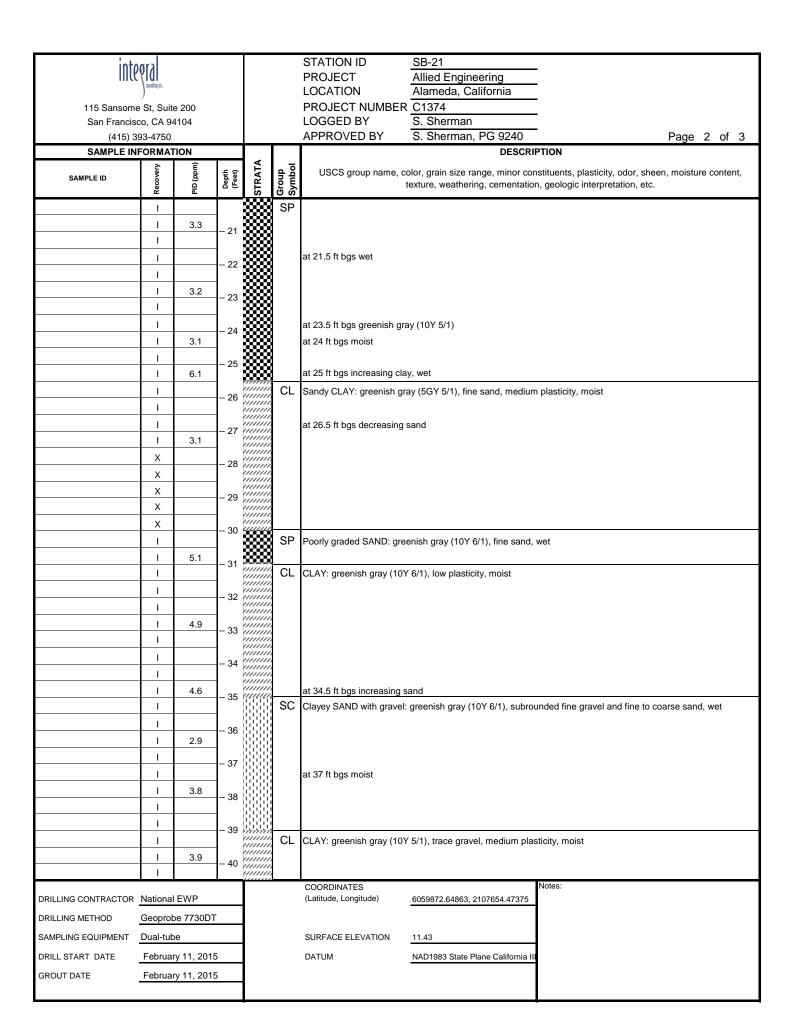
!_L.								
Inter	øral					STATION ID	SB-17	_
IIIC	TUI ausilingina					PROJECT	Allied Engineering	_
)					LOCATION	Alameda, California	_
115 Sansome	,					PROJECT NUMBER LOGGED BY	C. Lyles	_
San Francisc (415) 39		+104				APPROVED BY	S. Sherman, PG 9240	- Page 1 of 1
SAMPLE INF		ION				MINOVEDBI	5. Sherman, PG 9240 DESCRI	
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, o		nstituents, plasticity, odor, sheen, moisture content,
	ž	Ā		S	ତି ର	1 ft bgs to concrete surfa		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
			1			Tit bys to concrete suria	ce	
	ı		ļ '			CONCRETE		
	I		2					
	- 1		_					
	I		3					
	ı							
	I		4					
	Į		4					
	ı		5					
SB-17-5.0-6.0	I	2.4	3		ML	SILT: from 5.0 to 5.2 ft bo	gs black (N 0.5), low plasticity, m	noderate hydrocarbon-like odor, moist
	ı		6			from 5.2 ft to 5.7 ft bgs da	ark greenish gray (10Y 4/1), no o	odor
	I		6			at 5.7 ft bgs pale olive (5		
	Į					Ì		
	I	0.7	7					
	l		_					
	ı		8			at 8 ft bgs few dark yellov	wish brown (10YR 4/6) and black	k (7.5YR 2.5/1) mottling
	ı		_					
SB-17-9.0-10.0	1	0.7	9		$\overline{}$			
	ı					Clayey SAND: pale olive	(5Y 6/3), fine sand, wet	
	i		10			, , , , , , , , , , , , , , , , , , ,	, , , , , , , , , , , , , , , , , , , ,	
	i	0.4						
	i	· · · ·	11					
	i							
	ı	0.7	12					
	i	0.7			SP	Poorly graded SAND: day	rk greenish gray (10GY 4/1), fine	e sand wet
	ı		13	***	-	. 55, g. 4404 5/1115. uai	5. 555 gray (1001 -71), IIIIc	, ······
	· ·			***		at 13.5 ft bgs olive brown	(2 5Y 4/3)	
	' 		14			at 10.0 it bys onve brown	· (=.0 : 7/0)	
	· 	0.0		XXX				
	'	0.0	15) 		Not logged beyond 15 ft l	bgs	
							-	
			16					
			17					
			18					
			19					
			1					
			20			Hydropunch to 20 ft bgs;	end of horing	
			<u> </u>			COORDINATES	ond of boiling	Notes:
DRILLING CONTRACTOR	National	EWP				(Latitude, Longitude)	6059843.91396, 2107703.34804	Groundwater sample SB-17-GW collected from 15-20 ft bgs
DRILLING METHOD	Geoprob	e 7730DT						with hydropunch. Collected DUP-021815 from this location.
-	Macroco					SURFACE ELEVATION	11.43	
-			_					1
-		y 18, 2015				DATUM	NAD1983 State Plane California II	1
GROUT DATE	Februar	y 18, 2015	5					

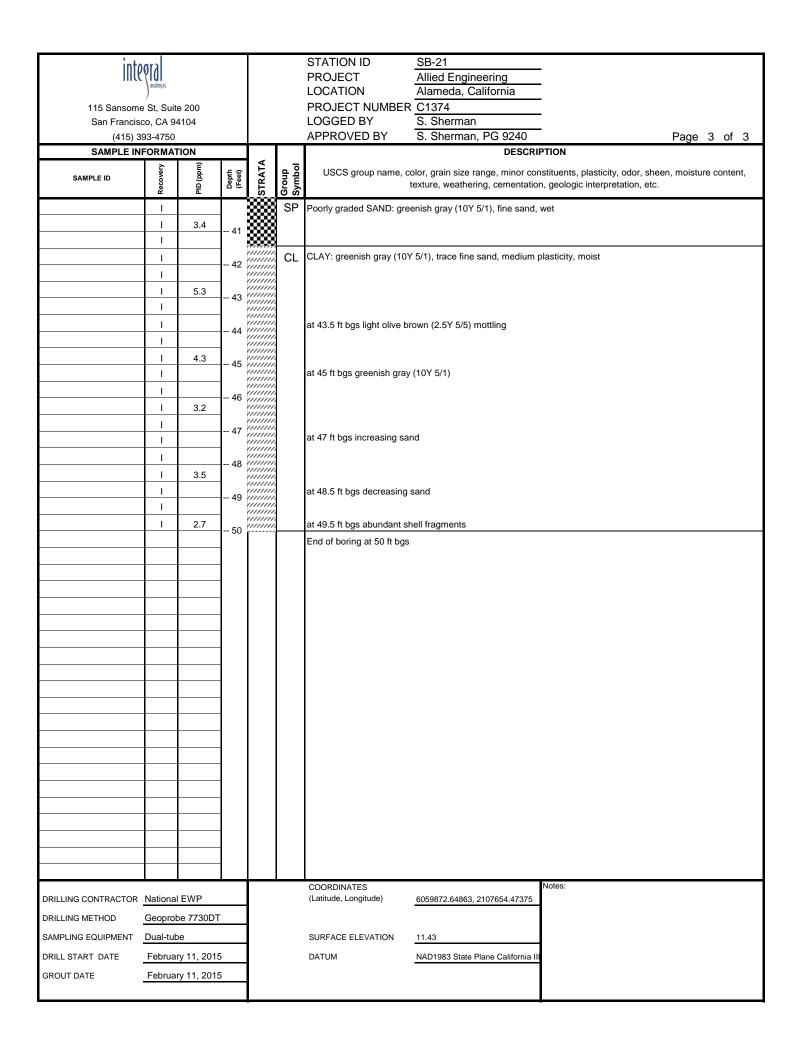
into	gral			I		STATION ID	SB-18	
JIII	VIQI					PROJECT	Allied Engineering	_
) ursumju.					LOCATION	Alameda, California	
115 Sansome	St, Suite	e 200				PROJECT NUMBER	C1374	_
San Francisc	co, CA 94	4104				LOGGED BY	S. Sherman	-
(415) 3	93-4750					APPROVED BY	S. Sherman, PG 9240	Page 1 of 1
SAMPLE IN		ION		Ì			DESCRI	
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol			nstituents, plasticity, odor, sheen, moisture content,
	ı			0,	0 0	CONCRETE		
				000000				0 1 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	1		1	188 0	SW-SC	coarse sand, moist	dark yellowish brown (101R 4/4	1), angular fine gravel, subrounded fine to
	I	0.4						
	1		2		ML	Sandy SILT: black (N 0.5)	, fine sand, low plasticity, moist	
	1] -		1			
	1		_		1			
	i	2.8	3		1			
			1		1			
	I		4		1			
	1				1			
	1	2.9	5		1			
SB-18-5.0-6.0	1	5.1		00000	CL	Sandy CLAY: dark greenis	sh gray (5GY 4/1), fine sand, lo	w plasticity, slight hydrocarbon odor, moist
	1		1	anna	3			
			6	anna	3			
	I		-	anna	3			
	1	2.2	7	anna	3	at 6.5 ft bgs no odor		
	I		<u> </u>		3	at 7 ft bgs greenish gray (10Y 5/1)	
	1	-	_		3			
	ı		8	anna	3	at 8 ft bgs dark yellowish t	brown (10YR 4/6) mottling	
		1.0	1	anna	3			
OD 40 6 2 12 2	1	1.8	9	anna	3			
SB-18-9.0-10.0	I		l	anna	3			
	I		10		3			
	Х		٠. ا	annin	3			
	Х		1					
	1		11	2000	SP	Poorly graded SAND: gray	yish brown (2.5Y 5/3), fine sand	I wet
		0.4		888) ·	graded of the gray	ylon brown (2.01 0/0), ililo oano	,, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
	I	2.4	12	888	Ä			
	I			888	Ä			
	1		13	888	Ä			
	- 1		10	888	Ä			
	1			888	Ä			
	ı	2.2	14	XXX	8	at 14 ft bgs dark greenish	gray (10GV 4/1)	
		۷.۷	l	XXX	8			
	I		15	poss	↓	at 14.7 ft bgs olive gray (5	oy 4/2)	
			1			End of boring at 15 ft bgs		
			1					
			1					
			1					
			l					
			1					
			1					
	l		L		<u> </u>	COORDINATES		Notes:
DRILLING CONTRACTOR	National	EWP		1		(Latitude, Longitude)	6059806.27285, 2107731.75121	Groundwater sample SB-18-GW collected from 10 ft bgs at
				1		,,gao,	2330000.2.200, 210//01./0121	an alternate location 10 feet to the south of this soil boring in
DRILLING METHOD	Geoprob	oe 7730DT	-	4				an adjacent concrete pit. The alternate location was advanced via hand auger with refusal in coarse gravel.
SAMPLING EQUIPMENT	Macroco	ore		1		SURFACE ELEVATION	11.43	advanced via nand adger with refusal in coarse gravel.
DRILL START DATE	Februar	rv 10, 2015		Ĭ		DATUM	NAD1983 State Plane California II	
		ry 19, 2015		1		DATUM	ו פספו עראון Sos State Plane California II	1
GROUT DATE	Februar	ry 19, 2015	5	4				
				1				1

inte						STATION ID	SR-10	
אוווו	gral					STATION ID PROJECT	SB-19 Allied Engineering	-
IIIC	ansilting inc					LOCATION	Allied Engineering Alameda, California	-
115 Sansome) Set Suite	200				PROJECT NUMBER		_
San Francisc						LOGGED BY	C. Lyles	-
	93-4750					APPROVED BY	S. Sherman, PG 9240	- Page 1 of 1
SAMPLE INI		ION					DESCRI	
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, o		nstituents, plasticity, odor, sheen, moisture content,
				0,	0 0,	2 ft bgs to concrete surfa	ce	
			1					
] '					
			2					
	I					CONCRETE		
	I		3					
	I]3					
	I		4					
	I							
	I		5					
	I] 5		GP	Poorly graded GRAVEL:	angular fine gravel, residual NA	PL, hydrocarbon-like odor
SB-19-5.5-6.5	I	63.8	6		ML	SILT with sand: gray (2.5	Y 5/1), fine sand, black (N 0.5) i	mottling, residual NAPL, strong hydrocarbon-like
	I		٥			odor, moist		·
	I				CL	CLAY with sand: olive gra	ay (5Y 5/2), fine sand, low plasti	city, hydrocarbon-like odor, moist
	ı		7					
-	I	69.1] _					
-	I		8			from 8 ft to 9 ft bgs black	(7.5YR 2.5/1) nodules	
SB-19-8.5-9.5	ı		1					
	ı	18.6	9			from 9 ft to 10 ft bgs dark	yellowish brown (10YR 4/6) mo	ottling
	Х		1		$\overline{}$, , , ,	
	1		10	,,,,,,,	SP	Poorly graded SAND: vel	lowish brown (10YR 5/4), fine sa	and, low plasticity, hydrocarbon-like odor, wet
	i	23.1	1.	 		, y ===== 3, y or		, , , , , , , , , , , , , , , , , , , ,
	i		11	(888)				
	i		1	KW.				
	ı		12	8888				
	ı	6.4	1			at 12.5 ft bgs dark gray (10YR 4/1)	
	ı		13			j , , , , , , , , , , , , , , , , , , ,	• /	
	i		1	8888				
	i		14			at 14 ft bgs grades to bro	wn (10YR 5/3)	
	i	11.1	1	 		3	(·-···-/•/	
		7 1.1	15			Not logged beyond 15 ft l	ogs	
			1			332222,0.14	•	
			16					
			1					
			17					
			1					
			18					
			1					
			19					
			1					
			20			Hydronunch to 20 ft h	and of haring	
						Hydropunch to 20 ft bgs; COORDINATES	ena or normy	Notes:
DRILLING CONTRACTOR	National	EWP				(Latitude, Longitude)	6059829.0409, 2107682.27026	Measured 0.7 ft of LNAPL thickness in installed temporary
ORILLING METHOD	Geoprob	e 7730DT						well.
		re/Dual-tu		1		SURFACE ELEVATION	11.43	Poor recovery during purging for sampling on 2/13/15.
				1				Collected groundwater sample SB-19-GW on 2/17/15 with
DRILL START DATE	Februar	y 12, 2015)	ł		DATUM	NAD1983 State Plane California II	hydropunch from 15-20 ft bgs.
GROUT DATE	Februar	y 17, 2015	5	Į.				

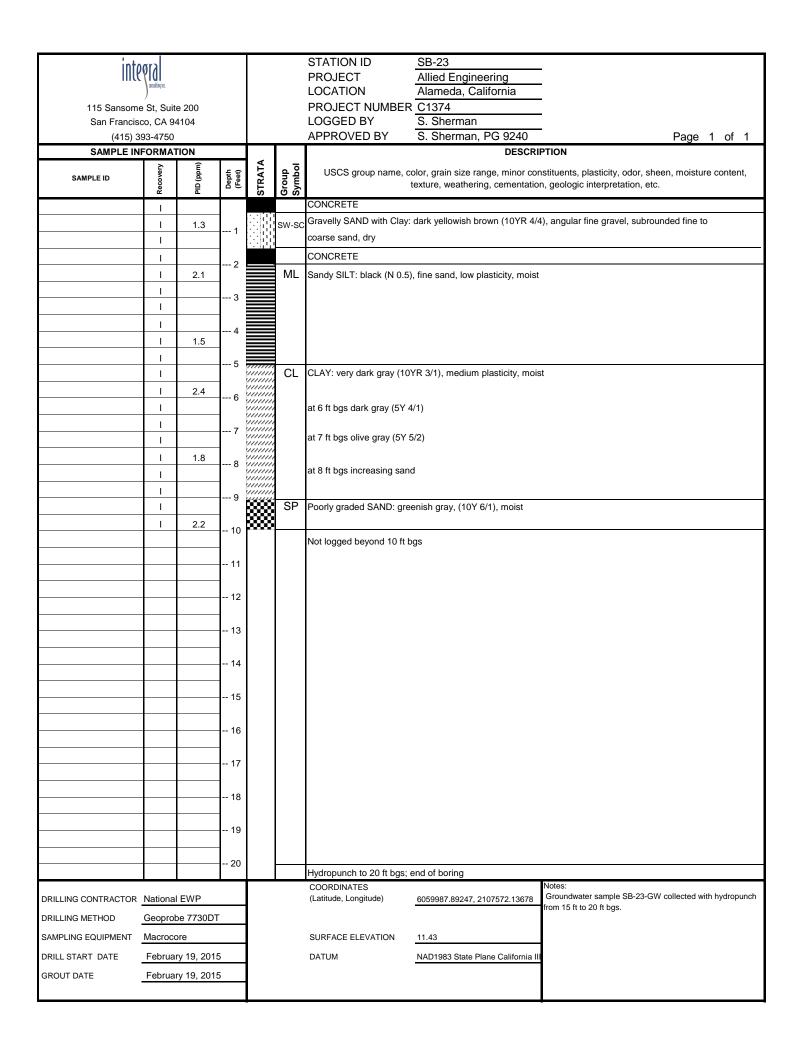
115 Sansome St San Francisco, (415) 393- SAMPLE INFO	istiniic St, Suite CA 94 -4750	000				STATION ID PROJECT	SB-20	_
115 Sansome St San Francisco, (415) 393- SAMPLE INFO	istiniic St, Suite CA 94 -4750	000				PROJECT	Alliad Engineering	
San Francisco, (415) 393- SAMPLE INFO	CA 94 -4750	000					Allied Engineering	_
San Francisco, (415) 393- SAMPLE INFO	CA 94 -4750	000				LOCATION	Alameda, California	_
(415) 393- SAMPLE INFO	-4750					PROJECT NUMBER		_
SAMPLE INFO		104				LOGGED BY	C. Lyles	_
						APPROVED BY	S. Sherman, PG 9240	Page 1 of 1
SAMPLE ID	RMAT						DESCRI	IPTION
	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol	USCS group name, co	olor, grain size range, minor co texture, weathering, cementation	onstituents, plasticity, odor, sheen, moisture content, on, geologic interpretation, etc.
						2.2 ft bgs to concrete surfa	ace	
			1					
	1		2			CONCRETE		
						CONCRETE		
	. I		3					
	ı							
	I		4					
	1							
	1		5					
	I		o					
	ı				ML	Sandy SILT: gray (N 6/) fi	ine sand, low plasticity, indiscer	rnible odor, moist
SB-20-6.0-7.0	i	2.7	6			gray (14 0/), 11	Jama, 1511 plactionly, moison	
JD-20-0.0-1.0		۷.۱						
	. I		7					
	ı			mm				
	ı		8		CL	CLAY with sand: grayish b	brown (10YR 5/2), fine sand, lov	w plasticity, indiscernible odor, moist
	ı	1.8	ľ					
	I	-	_	90000		from 8.5 ft to 9.5 ft bgs fev	w black (N 0.5) nodules	
	1		9				. ,	
	ı					from 9.5 ft to 10.5 ft bas d	lark yellowish brown (10YR 4/6)	s) mottling
	<u>'</u>	0.0	10			o o it bys u	ian yonowish brown (1011 4/0)	ry mounty
		0.2		00000				
SB-20-10.5-11.5	1		11					
	ı	0.1						
	I		12					
	1					at 12 ft bgs increasing sar	nd	
	1	0.1	40		$\overline{}$			
	I		13			at 13 ft bgs wet		
	1				SP	Poorly graded SAND: dark	k bluish gray (5B 4/1), fine sand	d no odor wet
	i		14		٥.		g.a, (00 1/1), iiilo saile	_, ,
		0.4		XXXX				
	l v	0.1	15					
	Х			 				
	ı		16					
	ı	0.1				at 16 ft bgs light yellowish	brown (2.5Y 6/3), fine and med	dium sand
	ı		17					
	1		17					
	i	0.1		(XXX)				
	i	J	18	XXX)				
	' 							
 			19	8333 3				
_	ı			8888				
	1	0.1	20	8888				
	1			****		End of boring at 20.5 ft bg	gs	
						COORDINATES		Notes: Poor recovery from temporary well installed to 15.5 ft bgs on
DRILLING CONTRACTOR Na	ational	EWP				(Latitude, Longitude)	6059872.64863, 2107654.47375	2/13/15.
DRILLING METHOD Ge	eoprob	e 7730DT						
SAMPLING EQUIPMENT Ma	acroco	re				SURFACE ELEVATION	11.43	Groundwater sample SB-20-GW collected on 2/17/15 with hydropunch from 15.5 to 20.5 ft bgs.
								7
·		y 13, 2015				DATUM	NAD1983 State Plane California II	
GROUT DATE F6	ebruar	y 17, 2015	,					

						OTATION ID						
inta	egral					STATION ID SB-21						
IIIC	ansulting inc					PROJECT Allied Engineering LOCATION Alameda, California						
445.0) - 01 0 iii	- 000				PROJECT NUMBER C1374						
115 Sansom San Francis						LOGGED BY S. Sherman						
	393-4750	+104				APPROVED BY S. Sherman, PG 9240 Page 1 of 3						
SAMPLE IN		TION			DESCRIPTION							
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol							
	Rec	E .	ے ۵	ST	s s	texture, weathering, cementation, geologic interpretation, etc.						
 	I			0.0.00		CONCRETE						
SB-21-1.0-2.0	l I	5.1	1		GC	Clayey GRAVEL with sand: brown (7.5YR 4/4), angular to subrounded fine to coarse gravel and medium to coarse sand, dry						
	1		2		ML	Sandy SILT: black (N 0.5), fine sand, low to no plasticity, moist						
	I											
	I	4.3	3									
	- 1		3			at 3 ft bgs very dark grayish brown (10YR 3/2), decreasing sand						
	I		1		CL	Sandy CLAY: light yellowish brown (2.5Y 6/3), fine sand, low plasticity, moist						
	I]							
	I	5.2	5		1							
	I]		1							
	I	0.9	_]							
	I		6		1							
	ı		1 _		1							
	I		7]	at 7 ft bgs decreasing sand						
	ı	0.8	1 .									
	1		8	11111111	1							
	i		1 .]							
	ı		9		1							
	1	0.9	1		1							
	i		10]							
	ı	1.0		00000		at 10.5 ft bgs increasing sand						
	ı	-	11	888	SP	Poorly graded SAND: greenish gray (10Y 5/1), fine sand, moist						
	ı		١.,	888	8							
	ı	0.8	12		SC	Clayey SAND: light olive brown (2.5Y 5/4), fine sand, moist						
	ı		1									
	i		13	3333	SP	Poorly graded SAND: greenish gray (5GY 5/1), fine sand, moist						
	1			3333	8							
	ı	0.8	14	888	1							
	ı	0.0	1	***	1							
	i		15	888	8	at 15 ft bgs light olive brown (2.5Y 5/3)						
	i	0.9	1	888	$\overline{}$	7						
	i	0.0	16	XXX	<u> </u>	at 16 ft bgs wet						
	<u> </u>		1	888	8							
	i		17	XXX	Ä							
	1	0.9		888	8							
	<u>'</u>	0.5	18	888	8							
	1			XXX	8							
	<u> </u>		19	888	8	at 19 ft bgs moist						
	<u>'</u>	0.8	1	888	A	at to it bys moist						
	<u>'</u>	0.0	20	***	1							
				T		COORDINATES Notes:						
DRILLING CONTRACTOR	Nationa	IEWP		4		(Latitude, Longitude) 6059872.64863, 2107654.47375						
DRILLING METHOD	Geoprol	oe 7730DT		1								
SAMPLING EQUIPMENT	Dual-tub			1		SURFACE ELEVATION 11.43						
DRILL START DATE		ry 11, 2015	5	1		DATUM NAD1983 State Plane California III						
				1		TAND 1900 Otale Flatte California III						
GROUT DATE	Februa	ry 11, 2015)	ſ								
				<u>L</u>								





	-			1					
inte	ogral					STATION ID	SB-22		
IIIC	arsilting inc						Allied Engineering Alameda, California		
445.0) - 04 0 ii	- 000							
115 Sansome San Francis						PROJECT NUMBER LOGGED BY	C. Lyles		
	60, CA 9. 193-4750	4104				APPROVED BY	S. Sherman, PG 9240		Page 1 of 1
SAMPLE IN		TION				ALLINOVEDEL	DESCRIP	TION	rage i oi i
SAMPLE ID	Recovery	PID (ppm)	Depth (Feet)	STRATA	Group Symbol		lor, grain size range, minor consexture, weathering, cementation	stituents, plasticity, odor, sh	
	ř	⋷		.S	ΘÓ		-		
			1			0.5 ft bgs to concrete surfa CONCRETE	ace		
	1		1			00.101.212			
	I		1						
	I		2						
	I								
	I		3						
	I		1						
	1		4						
SB-22-4.0-5.0	I	0.8	1		ML	SILT with sand: black (10)	'R 2/1), low plasticity, strong sev	vage-like odor, moist	
	ı		5						
	I					at 5 ft bgs gray (N 6/), incr	easing fine sand		
	I		6						
	ı	0.4	ľ						
	Х		7						
	Х		/						
	Х		1 _						
	Х		8						
	X		1						
	1	0.1	9	9111111	CL	CLAY with sand: brown (1)	OYR 5/3), medium plasticity, indi	scernible odor, moist	
	ti		1						
	<u>'</u>		10						
	<u> </u>		1						
SB-22-11.0-12.0	<u> </u>	2.1	11						
3D-22-11.0-12.0	 '	2.1		anna Mana					
	-		12			f 40 ft t- 44 ft h		·	
	1					from 12 it to 14 it bgs dark	reddish brown (10YR 4/6) mottl	ing	
	1		13	111111111	> _	at 13 ft bgs increasing san	d wet		
	+ -		1				-,		
	l		14		C1.1	an an	(10) D = (0, T)		
	1	1.1	1		SM	Silty SAND: yellowish brov	n (10YR 5/4), fine sand, no odo	r, wet	
	1		15						
	1		1						
	1		16	55551 10000					
	1	0.2	1	888	SP	Poorly graded SAND: gray	ish brown (10YR 5/2), fine sand,	, wet	
	I		17	888					
	I		1	XXX					
	I		18	 					
	- 1		1	888					
	- 1	0.0	19	pxXX					
			1			Not logged beyond 19 ft be	gs		
	1		20						
						Hydropunch to 20 ft bgs; e		V 4	
DRILLING CONTRACTOR	Nationa	I FW/P				COORDINATES (Latitude, Longitude)		Notes: Measured 0.9 ft of LNAPL thick	ness in installed temporary
				1		(Lamado, Longitude)	0000000.01004, 2107007.40040	well.	
DRILLING METHOD	Geoprol	be 7730DT		ł			l,	Poor recovery during purging fo	r sampling on 2/13/15.
SAMPLING EQUIPMENT	Macroco	ore		1		SURFACE ELEVATION	11.43		
DRILL START DATE	Februa	ry 13, 2015	5			DATUM		Collected groundwater sample s hydropunch from 15-20 ft bgs.	SB-19-GW on 2/17/15 with
GROUT DATE	Februa	ry 17, 201	5					, .,	
	. 52144	,, 2010		1					
				<u> </u>			<u></u>		



115 Sansom San Francis (415) 3 SAMPLE IN	co, CA 94 93-4750	4104	Depth (Feet)	STRATA	Group Symbol	PROJECT LOCATION PROJECT NUMBER LOGGED BY APPROVED BY USCS group name, colo	S. Sherman S. Sherman, PG 9240 DESCRII for, grain size range, minor con exture, weathering, cementation	nstituents, plasticity, odor, sheen, moisture content,
			2					
SB-24-3.2-3.8		42	3		ML	CONCRETE from 2.8 ft to 3 Sandy SILT: black (N 0.5), f	3.2 ft bgs fine sand, low plasticity, strong	hydrocarbon-like odor, moist
		72	5		CL	Sandy CLAY: greenish gray	y (5GY 5/1), fine sand, low plas	sticity, slight hydrocarbon-like odor, moist
SB-24-7.0-7.3	1 1 1	2.7	7		sc 🖂	Clayey SAND: greenish gra	ay (5GY 5/1), fine sand, slight h	ıydrocarbon-like odor, moist
		1.8	10		SP	Poorly graded SAND: greer	nish gray (5GY 5/1), fine sand,	slight hydrocarbon-like odor, wet
		1.8	13			at 14 ft bgs light olive browr	n (2.5Y 5/4)	
			10 			End of boring at 16 ft bgs		
DRILLING CONTRACTOR DRILLING METHOD SAMPLING EQUIPMENT DRILL START DATE GROUT DATE	NA Hand Aug Februa	ger 3.25" dia ry 18, 2015	5			SURFACE ELEVATION 2	6059990.44793, 2107626.3355 11.43 NAD1983 State Plane California III	Notes: Boring location is adjacent to pit sump. Groundwater sample SB-24-GW collected using installed temporary well. No LNAPL observed in temporary well.