Appendix A Field Sampling Logs



HOR

LOW-FL	OW G	ROU	NDWATER S	SAMPLING DAT	Page of							
10		Date	1									
54M	NI.	91	30/15	Purge/Samp	le Equipme	nt	Wa	ter-quality	ent			
Samplers' in	nitials	Time		man accompany and a second accompany of			Section delivering recognition	The state of the s	1	,		
PS	w	00	05	() Peristaltic:				el Meter: 🤄	satte	ch		
Casing Dian	asing Diameter (in) Casing Stickup (ft)			1	(.66			The same of the sa			
ال) سو	121		<i>ا</i> د	Lange Contra	stech !	118			1)	A		
Initial Wate	r Level (ft			Willedder:	siecut		OII-water	Interface Me	iter:	77		
btoc) Q	ad	(ft-bto	ا يا							1		
Final Water	Level		ned Interval	() Other:			Paramete	r Meter(s): T	Cond pH DO	ORP NTU		
(ft-btoc)	34	(ft-bto	(c) 1					1	•	_		
11	~		8-34.8				AS	554	001	2		
Purge Volui (liters)	me.		e Depth									
		Ĺ	45		-	~~~	Turbidity	Meter: [[]	ACH			
	Depth to	Water	Pumping Rate	T	Tamp.	Cond.	Υ	DO		Turb.		
Time	(1)		(l/min)	Purge Volume (ilters)	COF	(µS/cm)	рн	35/mg/L	ORP (mV)	1		
2836	193	4	isom		14.64	2,411	5.5	242	157	2.85		
0240	/	_	/		14.07	0.414	5.5	4	74	0.68		
0845		,	/					1,20	- 63			
9820		/	/					0.93	-	and the contract of the last o		
0855		/	/					0.75		0.71		
2090		,			,	1		0.75		0.72		
2905			/		14.14	+		-	-	-		
2910	1		/		14.14					0.62		
= 11=				<u> </u>	1	() () ()	<u> </u>	0.1.3	1,00	2.03		
Full Samp	la Suita Ol			Condition of Wall Born		1	<u> </u>	Pu	dex).	<u></u>		
() Partial Sa			ad·	Condition of Well, Remarks: Explosives Fre Considered Elithe = 0.0 will writing than								
				onu Dissels 200 = 180 = 100 (onte o						1	1	•
() No Sampl	E COLSINE	3		1 000 1000 100 1 1 100 (10, 10, 10, 10, 10, 10, 10, 10, 10, 10,						25,00	pular 121	1
QC Samples:			MS/MSD	4				إعا	CAND	with a	مداعط	
Sample ID:	54 m		T	QC Sample ID: (2)(4						1		
Protective Le	vel Derma		BA	Sample Time: C915 Checked by:						1		
Respiratory:		(D)C	BA	() Metals Sample Filte	red	Filter	Date:	9/30/	15		7	

CAR THE .

Tamp. ±1°C
pH ±0.1 units
EC ±10%

EC ±10%

Turb. ±10% <50 MTU

DO ±10%

Radex ±10 mV

Log Book # LOW-FLOW GROUNDWATER SAMPLING DATA SHEET Page ____of__ SYMUD Water-quality Equipment Purge/Sample Equipment Samplers' Initials RJW 13:30 Casing Diameter (in) Casing Stickup (ft) 1.80 Bladder: Georter hx i8 Oil-water Interface Meter: Initial Water Level (ft Total Well Depth (fr-btoc) 28.2 HE-34 () Other: Parameter Meter(s): T Cond pH DO ORP NTU Final Water Level Screened Interval (ft-btoc) (ft-btoc) 121 226 445 12-2 Purge Volume Sample Depth (ft-btoc) 25 (liters) Turbidity Meter: HACH 00 (11) (1/min) Purge Volume (liters) °C/°F (µS/cm) ORP (mV) %/mg/L 8,24 1345 SOM 3726.5 1350 3756.5 0.71 1355 1034 37.2 31.0 1400 **304** 1410 6,22 1445 15.8 329 67 7.80 73.573. 1420 15,8 3246.8 8,20710 emplesives Fe (dis) 8146 = 0.11 mg/c e Grow stales statice MN (2) 2149 = 0.03/my/c QC Samples (FD) FS RB AB MS/MSD SWMUSTTM OCSAMPLE STANDTA Sample Time: 125 () Metals Sample Fiftered

Temp. ±1°C
pH ±0.1 units

BC ±0%

Torb. ±0% L=0 e70

M0 ± 0%

Tombx ±0 e70

Tombx ±0 e70

H	1								Log Book		
LOW-FL	OW GF	ROU	NDWATER :	SAMPLING DA	TA SHEET	Page (of 2)					
10		Date					1				
CT 1 4 1	212	al,	<u>-را ح</u>								
DAMA	717		30/15	Purge/Samp	W	ater-qualit	y Equipn	rent			
Samplers' In	irciais	Time	_		l			(
PJC	いし	10	15	() Peristaltic:			Water-le	vel Mater: (cate	sh	
Casing Diam	veter (in)	Casing	Stickup (ft)								
	1	~	· - 1		1 1.	66				. ^	
2" Initial Wate	r I med (fe)			Udladder: Com	HERN X	_81.	Oil-water	Interface M	eter: A	2H	
btoc)		(ft-bto									
24	4	•	30	() Other:			Paramete	er Meter(s): 1	Cond pH DC	ORP NTU	
Final Water			ned Interval								
(ft-btoc)		(ft-bto					1	515	56	2926	
Purge Volu	me l		e Depth				<u>-</u> -	<u> </u>			
(liters)		(ft-bto	e Debtu	l					1001	, ,	
			<u> </u>	<u> </u>			Turbidity	Meter:	HC	1	
	Charth to	ef-t	Dunnal - D.A	·	T	T	,		, 		
Time	Depth to (ft)		Pumping Rate (I/min)	Purge Volume (liters)	Temp. "C/"F	Cond. (µS/cm)	рH	96/mg/L	ORP (mV)	Turb. (NTU)	
1035	24.4	1	ioomi						613		
	47.		1000			C.X.		<u>C,51</u>	115	33.9	
1045	-				3.41	0.560	C.53	6.38	176	24.1	
1050	/				14.7	0.559	624	6. 4	181,6	4.8	
1055	1		1					C 34			
	_ <				19.1	0,559	アシイ	E134	185,1	11.3.3	
1100	/				14.7	0,554	6.55	6.27	0.981	5.20	
1105	1				14.8	0.559	Care			4.43	
									Trans		
1110					14,8	Cr.228	6172	6.28	196.5	2001	
1115	_		_		14.8	6.558	8.8	5.9	1747	3,06	
1120	1		/		14.9	4 53.0	77	5.9	26.5		
/	<u> </u>	I			1710	//0	7.7	1 - 1	DO2	2.78	
W Full Samp	te Suite Obs	ained		Condition of Well, Remi Fe (dis)814 Mu (dis)81	arks:		2	- iashy	ধ্য		
() Partial Sa	mple Suite (Obtain	ed·	Fe(dis)814	6 = 0.8	27 Mg	ルギ	mar bear	x, Tux		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- Jones	- John R		N. Chicalal	49=0	nlola	.~	ic bit	ان مل	ملائله	
() No Sampl	e Obtained			- W (2)(1)	•• 0	ME II	, 💃	erchlor hlsrod	احتواء	Mocion	
QC Samples:	FD FS R	B AB	MS/MSD)			1 00 10	- di	plans	ه دارا	سرك	
See COC for ana							Sampler's	Signature	1	5.0.	
Sample ID:	241	Mi	71.3	QC Sample ID : 54 (Asion	15MSD	Charling	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	عد		
Protective Le Respiratory:	vei Dermai:		B A	Sample Time: (] 3 () Metals Sample Filter		Filter	Checked b	13015	5		
								علاتي	_		

Temp. ±1°C pH ±0.1 mits EC ±10% UTU 022 2012, drust Lot for Radax ± 10 mV

HOR

LOE	Book		

LOAA-LC	OW G	ROUI	NDWATER S	AMPLING DAT	A SHEET	Page cl of cl							
ID		Date											
5440	Sal	9	30 15	Purge/Samp	le Equipme	nt	Wa	Water-quality Equipment					
Samplers' In	itials	Time					, ,						
PL	_	10		() Peristaltic:			Nater-level Meter: Gootean						
Casing Diam	eter (in)	Casing	Colchum (fo)		. 1								
2"		35	1.3	Bladder: Gas	tech	Oil-water	Interface M	leter: 🔰	2				
Initial Water	Level (ft	Total \	Mall Death		7								
7.22	96.4			() Other:			Paramete	r Meter(s):	T Cond pH DO	ORP NTU			
Final Water Level Screened Interval									_	_			
(ft-btoc) (ft-btoc) -30			30				YS	1 55	Sorg	<u></u>			
Purge Volume Sample Depth										_			
(fiters) (fi-block							Turbidity	Meter:	OCK Soop	<u>t</u>			
					Temp.			DO	7	Turb.			
Time	Depth to		Pumping Rate (I/min)	Purge Volume (liters)	*C/*F	Cond. (µS/cm)	рН	%/mg/L	ORP (mV)				
1125	24,		-	1	14.8		5.4	6.0	364	2.66			
													
						†		 		-			
								 					
						<u> </u>							
16.00	da Cuba Co			Condition of tale II Con				-4					
fy Full Samp	ive Suite Of	ramed		Condition of Well, Remarks:									
() Partial Sa	mple Suite	Obtain	ed.	1									
() No Sampl	e Obtained	<u>.</u>											
QC Samples:	FD FS	RB AB	(MS/MSD)										
See COC for an		sted.			A 10-4		Sampler	Signature:					
Sample ID: Protective Le		-	BA	OC Sample ID: SUMINIZATION Checked by:									
Respiratory:		70		() Metals Sample Filte	Date: \$ 30 16								

Temp. ±1°C

pH ±0.1 mits

EC ±10%

Turb. ±10% L50 estu

DO ±10%

Redex ±10 mV

Fin LOW-FLOW GROUNDWATER SAMPLING DATA SHEET 9/30/15 54x4013 Purge/Sample Equipment Water-quality Equipment noices' initials 1245 Water level Meter Ga) Perstaltic asing Diameter (in) Casing Stickup (ft) 1.46 Maider Greatech X (8 initial Water Level (n Total Well Depth 22 Other arameter Meter(s): T Cond pH DO ORP NTU Final Water Level Screened Interval (h btoc) (h bloc) - 22 451 556 MPS Purge Volume Sample Depth in block 22 Turbidity Meter: LACH Depth to Wate (Vrain) Purge Volume (liters IN "C/"F 76/mg/L (µ\$/cm) ORP (mV) (NTU) 250 10.47 0.725 6.99 3.97 190.8 19B zo. 4 130 ml 1255 15.72 0.66 6914.69 187.0,26 1200 15.330.6066.84 5.30 188.4 5.6 1305 15.09 05 A 6.79 5.67 191.12.95 1310 14.95 0.560 6.76 5.79 192.32.7 1315 14.88 0.549 6.74 6.54 196.6 2.72 14.83 0543 6.70 6.07 1976 603 1320 1325 14.83 05396.706.11 19582.85 1330 6.12 195.2 1.34 EXPLOSIVES NEFull Sample Suite Obtained FE, DISSOLUED = 0.07 MIL MNX/TNX/RNX

MN, DISSOLUED = 0.047

OC Sample ID: DOE Sample Time | 355 () Metals Sample Filtered NIA TOC

PERCHIORATE

CHILDRATE/CHLORITE

MILL

Sampler's Signatura

TIC (NITRATE / CHLORIDE /

SULFATE)

Tamp. ±1°C

pH ±0.1 units

EC ±10%

Torb. ±10% (±0 0570)

DO ±10%

Radia: ±10 mV

QC Samples: FD FS RB AB MS/MSD

Sample ID 54 M. Protective Level Darmal

Respiratory

HIR

1,14									Log Book I			
LOW-FLO	DW G	ROUN	IDWATER S	SAMPLING DAT	TA SHEET	•			Page 2	01_2		
Œ		Date										
54M	NB	91	30/15	Purge/Samp	le Equipme	ent	l w	iter-qualit	y Equipm	ent		
Samplers' Init	tials	Time										
SJL				() Peristaltic:			Water-level Meter:					
Casing Diame	eter (in)	Casing S	itickup (ft)			Water-Rever (weter.						
			5 '									
2"				() Bladder:		Oil-water	Interface Me	eter:				
Initial Water	Level (ft											
20.4	1	(ft-btoo	1 _									
20.2	<u> </u>		22	() Other:		Paramete	r Meter(s): T	Cond pH DO	ORP NTU			
Final Water I	Level		ed Interval									
(ft-btoc)		(ft-bto	c)						- 1			
		112	-22	İ								
Purge Volum	ne		Depth	1								
(liters)		(ft-bto	c)	İ					1			
				<u></u>			Turbidity Meter:					
<u></u>												
Time	Depth to		Pumping Rate	Summa Maluma (Manu)	Temp.	Cond. (µS/cm)	рН	8 E	ORP (mV)	Turb. (NTU)		
111111		-	(I/min)	Purge Volume (liters)								
1385								6.16				
1340								6.19		to the same of the		
1345					14.93	0.530	6.68	6.27	196.3	1.15		
1350					14.83	0.52	6.69	6.53	198.0	1.00		
								,				
				Condition of Mall Com								
() Full Samp	le Suite O	btained		Condition of Well, Rem	#145;							
() Partial Sar	nple Suite	Obtaine	ed.	1								
() No Sample	Obtaine	d				*						
QC Samples:	FD FS	RS AS	MS/MSD	Fa								
See COC for anel	yses reque	sted.		OC Sample ID :		Sampler's Signature:						
Sample ID:	-10	1. D. C	R A	QC Sample ID : Sample Time: Checked by:								
Protective Level Dermal: D C B A Respiratory: D C B A				() Metals Sample Filter	red	Filter	Date:					
Respiratory:		טע	D ^	Merais sample sinction since Date:								

Tamp. ±1°C
pH ±0.1 units
EC±10%
Turb. ±10% (50 MTU
DO±10% Redex ± 10 mV

0730

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET 1/12/16 Water-quality Equipment Purge/Sample Equipment Samplers' Initials BEDTECH 514 Water-level Meter: KECK 200) Peristaltic: Casing Diameter (in) Casing Stickup (ft) GEOTECH M Bladder: 1.66 X 18 Initial Water Level (ft Total Well Depth btoc) 17.49 (fr-btoc) 62 Parameter Meter(s): T Cond pH DO ORP NTU) Other: Final Water Level Screened Interval (ft-btoc) **451** (ft-btoc) Purge Volume Sample Depth Turbidity Meter: HACH 2100K (liters) CAL (fr-broc) 45 Depth to Water **Pumping Rate** (µS/cm) %/mg/L ORP (mV) (NTU) *C/*F Purge Volume (liters) 17.49 X20 87. \$2.20 0825 8.6472.31.0 1830 9.44 75.3 0326 999 0840 6410.3017 0845 0860 0355 100 (X Euli Sample Suite Obtained EXPLOQUES カレ MEXITOXIDOX NITLATE / SULFATE / CHUOTOS () Partial Sample Suite Obtained PERCHORATE CHURITE () No Sample Obtained QC Samples: FD FS R8 AB MS/MSD Sampler's Signature: Sample ID: A P D Protective Level Dermal D C B A QC Sample 10: 4000

Sample Time: D900

) Metals Sample Filtered

Tamp. ±1°C PH ±0.1 units EC ±10% TUTO 52 200 450 NOTU NO ± 10% Radox ± 10 mV

Respiratory:

OC BA

KE= 0.00 MN= 0.063 mg/

Filter Date:

HOR

1250

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET 0ate 1/11/16 54 MW 10 **Water-quality Equipment** Purge/Sample Equipment Samplers' Initials KECK 200' 1316 アア) Peristaltic: Casing Diameter (in) | Casing Stickup (ft) GEUTECH De Bladder: 1.100 x 18 Oil-water Interface Meter: initial Water Level (ft Total Well Depth (ft-btoc) 35 451 3.94 Parameter Meter(s): T Cond pH DO ORP NTU () Other: (ft-btoc) (ft-btoc) 12-7 Purge Volume Sample Depth HACH 2100Q (liters) 12-5 GALL (ft-btoc) Depth to Water **Pumping Rate** (µS/cm) Purge Volume (liters) 1320 13.94 200 m 0.66 6.31 50002 106.8 2.3: 1325 101.5 1.00 31 6.00 1330 12.4 |0.67 |6.347.40 |97.8 1.05 12.4 0.60 6.23 4.94 92.8 1.31 1340 12.6 0.55 6.13 5.34 92.9081 1345 12. 40.55 6.13 14.80 GO.9 18.99 1350 12.6 054 6.15 6.41 89.0 6.84 1355 12.5/154/6.16/6.5/189.2/1.28 Seculi Sample Suite Obtained EXPLOSIVES, MNX/DNX/TNX) Partial Sample Suite Obtained TIC I No Sample Obtained NITZHTE/SULFATE/CHLORIDE QC Samples: (FD) FS RB AB MS/MSD PERCHUDEATE OC Sample ID: 54 TH 10 Sampler's Signature: Sample ID: 54 NW 12
Protective Level Dermal (D) C 8 A Sample Time: 45

Temp. ±1°C pH ±0.1 units EC +10% TUTO 50% 450 ATU Noit Od Redex ± 10 mV

Respiratory:

FE = 0.00 MGIL Mn= 0.054 mg/L

CHURRE/ CHUCKATE HIR LOW-FLOW GROUNDWATER SAMPLING DATA SHEET _10_ 54MWIO **Purge/Sample Equipment** Water-quality Equipment Samplers' Initials Water-level Meter: () Peristaltic: Casing Diameter (in) | Casing Stickup (ft) Oil-water interface Meter: () Bladder: initial Water Level (ft Total Well Depth btoc) (ft-btoc) Parameter Meter(s): T Cond pH DO ORP NTU () Other: Final Water Level Screened Interval (ft-btoc) (ft-btoc) Purge Volume Sample Depth (liters) (ft-btoc) Turbidity Meter: 00 Depth to Water Pumping Rate (NTU) ORF (mV) (µS/cm) (1/min) Purge Volume (liters) (ft) 1405 1410 1415 Condition of Well, Remarks: X Full Sample Suite Obtained () Partial Sample Suite Obtained () No Sample Obtained QC Samples: (FD) FS RB AB MS/MSD

Taup. 216
PH ±0.1 wits
EC \$10%
WAS 510% (50 MTU)
Soit od
Redex ± 10 mV

D C B A

Sample ID: 54MMID

Respiratory:

Protective Level Dermal (D) C 8 A

54 TM 10 FE: 0.00 MN: 0.054

Filter Date.

QC Sample ID : AATMU Sample Time: 1415

() Metals Sample Filtered

1052

LOW-FLO	WG	ROUN	DWATER S	AMPLING DAT	A SHEET				Page	M		
D	1	Date	. 1									
34 MW	121		12/16/	Purge/Sampl	le Equipme	ent	Water-quality Equipment					
amplers' Initi	als	Time	-									
		110	08	() Peristaltic:	1	YECK 200' Water-level Meter:						
asing Diamer	ter (in)		Aug 161	·	Water-Ken	er ivieter.						
-	•			GEOTECH 1.								
				M Bladder:			Oil-water	Interface Me	ter:			
nitial Water L	.evel (ft	Total W	ell Depth				451			1		
~22.°	94	(nt-otoc	30	() Other:			•	Meter(s): T	Cond oH DO	ORP NTU		
Final Water L	evel	Screen	ed Interval	() Other:			rarameter	Meter(s).	COMO PITO S			
(ft-btoc)		(ft-bto	E)							1		
		120	2-30									
Purge Volum			Depth				ЦΔ	421	50			
(liters) 1.5 (AU (ft-bloc) 28				1			Turbidity I		-			
				•								
Time		to Water	Pumping Rate	Daniel Malana (Mana)	Temp.	Cond. (µS/cm)	- M	*/ FET	ORP (mV)	Turb. (NTU)		
		<u>n)</u>	(I/mia)	Purge Volume (liters)		1	pH		-			
1115	72.	94	150ML	ļ	11.6	50.0	6.74	3.17	753			
1120					11.0	573	2 6-77	7.90	78.9	27.7		
1125					11.9	3000	6.78	7.46	80.7	12.6		
1130					11.8	593.5	6.78	765	82.6	12.3		
1135	·				12.0		6.78	78.3	35.8	9.56		
1140				1	120	1	6.79		37.6	1		
1145	1			1	17 1	586.9		+	+	+		
	 		 	+	112.1		-		_			
1150					111.9	191.7	16. M	B.27	11.5	6.45		
11.55					112.4	5395	16.79	18.62	92.9	15.80		
Full Same	ple Suite	Obtained	1	Condition of Well, Ren			MU	LATE	1(4	une		
1				EXPLOSI	ves		٠, ،		, 0,1	, ,		
() Partial Sa	mple Su	ite Ubtair	*e 0	TIXIXIT	TIC							
() No Samp	e Obtain	ned		1.404	TIL HURLATE/SULFATE							
QC Samples:			(S/MZD)	1 100								
QC Samples:	10 100 10 100	wested.		PERCHUA	Sampler's Signature:							
Sample ID:	64	40 12		QC Sample ID : 54	1855							
Protective Le	vei Derr	mal: D (. 8 A	Sample Time: 100	ered	Filte	Checked by: ter Date:					
PACA CATACO		U (If I LAIGNES SELLIDIG LIN	EIEU	ruce	LOGIE.					

Temp. ±1°C

PH ±0.1 units

EC±10%

Turb. ±10% L50 MTU

DO±10%

Rodex±10 mV

KE= 0.10 KH= 0.030 mg/-

1311

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET Purge/Sample Equipment **Water-quality Equipment** KFUK) Peristaltic: Casing Diameter (in) | Casing Stickup (ft) GEOTECH 1.66 KIB Oil-water Interface Meter: () Bladder: initial Water Level (ft Total Well Depth (M-bloc) 22 Parameter Meter(s): T Cond pH DO ORP NTU () Other: Final Water Level Screened Interval (ft-btoc) 12-22 Purge Volume Sample Depth (ft-bloc) 21 HALH 2100Q Turbidity Meter: Depth to Water Cond. **Pumping Rate** XAME ORP (mV) Purge Volume (liters) $(\mu S/cm)$ (Vmin) 304.46.98 59.0 58.7 35.4 19.42 1940 313.17.00 9.20 69.1 9.55 445 319,6 7.01 9.20 71.8 8.57 450 3.93 724 8.5 11.10 324017.01 8.74 73.2 7.99 NO WATER @ ISMID; PULLED PLUM AND DEPUNCTO Full Sample Suite Obtained BLADORE, RESTALTED AT 1405) Partial Sample Suite Obtained NO WATER CIO MIN; PULLED PUMP AND QUITCHED.) No Sample Obtained RESTACTED @ 1430 QC Samples: FD FS R8 A8 MS/MSD ier coc for analysis representation of the complete in the com QC Sample ID : Sample Time: SQC () Metals Sample Fittered Protective Level Dermal. D

Tamp. ±1°C PH ±0.1 wits EC + 10% TUTO 027 8015, drut 30 ± 00% Redex + 10 mV

DCBA

FE=0.05 MN=0003mg/EXPLOSIVES UH WATE/CHLORITE
THX/MNX/DNX PERLHWATE Ta NITRATE (CLUDEIDE / SUFATE TIL

Filter Date:

HIR

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET Page_ 54MWI 4/14/16 **Water-quality Equipment Purge/Sample Equipment** Samplers' Initials KECK 200' SUL 0315 Water-level Meter: () Peristaltic: Casing Diameter (in) | Casing Stickup (ft) GEOTECH MBladder: \$ 1.66 X18 Oil-water Interface Meter: Initial Water Level (ft Total Well Depth NSI 554
Parameter Meter(s): T Cond pH DO ORP NTU (ft-btoc) **54.** B btoc) **1.53** () Other: Screened Interval (ft-btoc) (ft-btoc) 34.8-5A.B 20.68 Purge Volume Sample Depth (ft-btoc) HACU 21009 (liters) **Turbidity Meter** Temp. Cond. Depth to Water **Pumping Rate** ORP (mV) (µS/cm) %/mg/L (I/min) Purge Volume (liters) 5.32 0824 120ml 441 0829 440 .03 0834 440 7.61 4.00 50.9 0839 440 7.61 4.00 5.0 0844 EXPLOSIVES Full Sample Suite Obtained Condition of Well, Remarks: 0816: FIRST WATER IN CELL; CLEAR 17NY/120X/TNX tod Drux) Partial Sample Suite Obtained SETTING: 10/50 TIC NOTHATE!) No Sample Obtained FE = 0.02 Mg/L CHECKATE / CHURCHE QC Samples (FD) FS RB AB MS/MSD Mr= 0.021 mg/L Sampler's Signature: QC Sample ID : 547 M | Sample Time: 06 49 59747 54 NW Protective Level Dermal: (D) C B A () Metals Sample Filtered Filter Date: 4/14/1 Respiratory:

Log Book #

HOR

of 2 W-FLOW GROUNDWATER SAMPLING DATA SHEET 54 MWID 4/14/16 **Water-quality Equipment Purge/Sample Equipment** Samplers' initials KECK 200' 1218 Water-level Meter:) Peristaltic: Casing Diameter (in) | Casing Stickup (ft) GEOTECH I.WXIB 4" Oil-water Interface Meter: initial Water Level (ft Total Well Depth (ft-btoc) 27 451 554 btoc) 15.83 Parameter Meter(s): T Cond pH DO ORP NTU () Other: Final Water Level Screened Interval (ft-btoc) (ft-btoc) 12-27 Purge Volume Sample Depth HACH 21009 (liters) S GAL (ft-btoc) 22 **Turbidity Meter:** Cond. Depth to Water **Pumping Rate** %/mg/L) ORP (mV) (NTU) (I/min) Purge Volume (liters) $(\mu S/cm)$ 225 19.33/157/1.14/2.12/92.2/5.00 82.1 4.14 1230 17.15 0.37 77.4 3.3 1735 798 7.14 0.28 74.7 46 1240 7.11 0.25 1295 3.32 754 7.00 0.29 1250 1255 3.23 720 6.91 0.39 71.9 4. 13.14 676 6.830.46 71.9 13.73 1300 1305 Condition of Well, Remarks: Tull Sample Suite Obtained LOWIFD OUT SIDE GATE 19E; CAILED SECUENTY) Partial Sample Suite Obtained AT 1146 FOR PCCESS) No Sample Obtained 1219 : FIRST WATER IN CELL QC Samples: FD FS RB AB MS/MSD ETTING: 15 10/50 Sampler's Signature: Sample ID: 54 PU 10

Protective Level Dermal © C B A
Respiratory: D B A QC Sample ID: NONE Sample Time: 1320
() Metals Sample Filtered Sample Time:

FYPUSIVES

TE = 0000 mg/L

MNX /BOX/TNX

MN 00005 0-00

TOC

TOC / NTRATE / SULFATE / CHUORIDE

PER CHUORATE

CHUORATE / CHIORITE

Log Book #_

HR

Dote Alala Purge/Sample Equipment Samplers' Initials Time () Peristaltic: Casing Diameter (in) Casing Stickup (ft) () Bladder: Oil-water Interface Meter: Final Water Level (ft Total Well Depth (ft-btoc) Final Water Level (ft-btoc) Purge Volume (inters) Sample Depth (ft-btoc) Turbidity Meter:	O ORP NTU						
Samplers' Initials () Peristaltic: Casing Diameter (in) Casing Stickup (ft) () Bladder: Oil-water Interface Meter: Fintial Water Level (ft btoc) Final Water Level (ft-btoc) Purge Volume (liters) () Peristaltic: () Bladder: Oil-water Interface Meter: Parameter Meter(s): T Cond pH D Purge Volume (ft-btoc)	O ORP NTU						
() Peristaltic: Water-level Meter: Casing Diameter (in) Casing Stickup (ft) () Bladder: Oil-water Interface Meter: Initial Water Level (ft Total Well Depth (ft-btoc) Final Water Level (ft-btoc) Purge Volume (Inters) () Peristaltic: Water-level Meter: () Bladder: Oil-water Interface Meter: Parameter Meter(s): T Cond pH D Purge Volume (Inters)							
Casing Diameter (in) () Bladder: Oil-water Interface Meter:							
() Bladder: Oil-water Interface Meter: Parameter Meter(s): T Cond pH D Oil-water Interface Meter:							
Initial Water Level (ft Total Well Depth btoc) (ft-btoc) () Other: Parameter Meter(s): T Cond pH Depth conditions the property of the prop							
() Other: Parameter Meter(s): T Cond pH D Final Water Level (ft-btoc) Purge Volume (Inters) (ft-btoc) () Other: Parameter Meter(s): T Cond pH D Final Water Level (ft-btoc)							
Final Water Level Screened Interval (ft-btoc)							
(ft-btoc) (ft-btoc) Purge Volume Sample Depth (liters) (ft-btoc)							
(liters) (ft-btoc)							
Turbidity Meter:							
Depth to Water Pumping Rate Temp. Cond. DO	Turb.						
Time (ft) (I/min) Purge Volume (liters) °C/°F (μS/cm) pH %/mg/L ORP (m)	V) (NTU)						
13.31 613 6.72 0.57 72.	13.84						
13.40 602 671 0.61 739	53.74						
() Full Sample Suite Obtained Condition of Well, Remarks:							
() Partial Sample Suite Obtained							
() No Sample Obtained							
QC Samples: FD FS RB AB MS/MSD							
	Sampler's Signature:						
Sample ID: QC Sample ID : Protective Level Dermal: D C B A Sample Time: 1220 Checked by:	Checked by:						
Protective Level Dermal: D C B A Sample Time: 1370 Checked by: Respiratory: D C B A () Metals Sample Filtered Filter Date:							

HX

h									Log Book		
LOW-FL	OW G	ROU	NDWATER	SAMPLING DA	TA SHEET	Γ			Page	_of	•
ID		Date	************								
SAM	W12	04	14/16	Purge/Sam	ole Equipme	ent	w	ater-qualit	y Equipm	ent	
Samplers' In		Time	- 1				VE	CKZ	2 0'		
Sul	_	10	134	() Peristaltic:			Water-lev	vel Meter:			
Casing Diam	neter (in)	Casing	Stickup (ft)	GEOTELL	4						
2"	~~			(X)Bladder:			Oil-water	Interface Me	eter:		1
Initial Wate	r Level (ft	Total V	Vell Depth				V5	1556	•		
23.0	15	(11-010	c) 30	() Other:				r Meter(s): T		ORP NTU	`
Final Water	Level		ed Interval								
(ft-btoc)	93	(ft-bto	30								
Purge Volum		Sample	e Depth				110	(CH 2	MOQ	,	
(liters)	M.L.	(ft-bto	c) 27				Turbidity	2002			
104	100								,		
Time	Depth to (ft)		Pumping Rate (i/min)	Purge Volume (liters)	Temp. °C/°F	Cond. (µS/cm)	рН	%/mg/s	ORP (mV)	Turb. (NTU)	
1442			120ml		16.53	240	6.42	3.35	109.7	4.68	
1447					14.75	302	645	6.47	93.6	7.∞	
1452					14.37	327	646	6.10	93.2	9.15	
1457					14.40	343	6.44	5.93	93.8	8.22	
1502					14.33			5.65	i	1	
150								5.80			
150					1.0-						
		\dashv									
ļl		1							xaos	1466	
Full Sampl	e Suite Ob	tained		Condition of Well, Rema	arks:		C C . (MS× /1	~~
() Partial San	nple Suite	Obtaine	d	1438: FIN	ST WAT	en in	cev	•	· • × / ·	DIN	
				SETTING: 1	0150			7	oc		
() No Sample				FE = 0.04	ms/L			T	CH121	11147	e/supate/
QC Samples: See COC for anal			MS/MSD	Mr. 0.07	Longli	ر ا	Sampler's	Signature: <	- Truck	UIDE	PERCHLUMAT
Sample ID:	591	SW	1	QC Sample ID: 54	m)2		Chackad h	C			CHWAATE/
Protective Lev	el Derma(B A	Sample Time: () Metals Sample Filter	512 ed	Filter	Checked by Date:	4/14/	4		CHLORITE
Respiratory:											

HR

Protective Level Dermal D C B A

1001

									Log Book			
LOW-FL	OW GR	OU	NDWATER	SAMPLING DAT	TA SHEET	•			Page	of		
ID.	1	Date										
54N	W13	4	14/16	Purge/Samp	ole Equipme	ent	Wa	ter-quality	/ Equipm	ent		
Samplers' In	itials	Time		,			VFC	X 20	6 '			
SU		-	THE PERSON NAMED IN COLUMN 2 I	() Peristaltic:			Water-lev					
Casing Diam	eter (in)	Casing	Stickup (ft)	GEOTEG	H 1.66	X RB						
2"				M Bladder.			Oil-water	Interface Me	eter:			
initial Wate btoc)	r Level (m	rotal v (ft-bto	vell Depth				451	556				
20.4	49	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0 22	() Other:			Paramete	r Meter(s): T	Cond pH DO	ORP NTU		
Final Water			ed Interval									
(ft-btoc)	Kn	(ft-bto	- 22									
20. Purge Volum	me		e Depth	1								
-0.59AL (11-btoc) 30								CH 21				
20.5	59AC	21	. 30	1			Turbidity	Meter:				
Time	Depth to	Water	Pumping Rate (I/min)	Purge Volume (liters)	Temp.	Cond. (µS/cm)	рН	00 %/mg/D	ORP (mV)	Turb. (NTU)		
1025	1 (1.7)		70 ML	roige voidine (inters)	13.27	224	6.74		71.7	5.83		
1030					13.56			6.95	73.9			
1035	 							6.90			-	
	<u> </u>			<u> </u>					74.1			
1040				-	I			6.91		1		
1045					1352	227	10:17	6.86	76.8	1.16		
								ļ				
M Full Same	ole Suite Ob	tained		Condition of Well, Rem	narks:			£	x puosi	YES		
				1014 : FIRS	ST WAT	ER 1	n cei			C 10000 0=00	אַל	
() Partial Sample Suite Obtained				SETTING:	the Poly							
() No Sample Obtained				TIC /NITRATE /9							/SULFATE	-/
QC Samples			MS/MSD	1021:			<u></u>		CHU	perpe		
See COC for an	alyses request	ted.			Sampler's Signature:							

FE = 0.02 mg/L MN= 0.025 mg/L

Checked by:
Filter Date: 4/14/14

CHARATE/ CHARATE

Leg Book #____

1417

tow H	OW GR	OUN	DWATER	NAMPLING DA	A SHEET				Page 1	of		
544	wl.	1/	11/10	Purge/Samp	le Equipme	nţ	Water-quality Equipment					
Larriguleira trii	tials	14	30	() Peristallic			VECY Za'					
v 4	1	anirig 1	dickup (ft)	Call CTG. (1)	1.60	Oil water Interface Meter						
robel Water stor)		ctal W	oll Depth	A CESTO FOR PERSONNEL PROPERTY OF THE PERSON		Oil water Interface Meter:						
10.93 real Water (ft bloc)	level (ft btor	ed Interval	() (What		nineatennapaes a s	Paramete	Meter(s)	Cond pH DO	ORP NIU		
22 P Purge Volum (Isters)	200		9-54.0					^(\)	242			
*** *** *** *** *** *** *** *** **			,30				Turbidity	₩ _{Meter}	2100			
firme	Cepth to V (ft)	V #1#1	Fumping Rate (I/min)	Purge Volume (liters)	Temp.	(ps/cm)	pH	H/KE/L		Turb. (NTU)		
1435	: H Madie (St. Lingstein)	NETANISM TO THE	s seemiostatoberanseraleinaleintusta er t	в и прогожительного данностивностью в	1896				1	(
1445		MERCHANIS IN THE	to entrancipe interpretations in		15.82							
145U 1455	& sattlementation	NATIONAL ST. 10	e ancertalisensialistationes is t	и от тор вышей положение положение он .	15.43		I I Comment			_		
500	e de dosadescanhesinado	MATERIAL DE SE	or systems of contents and production of a		15.32	473	7.26	2.60	2.0	0.3		
1505	n de mette grejde direktive de des	маненийся ли ч	ny romanyanan-makampanyanan-makanja ini	е авитиваниемоскоповинействого иннегона	15.27		The same of the sa			1		
1515			CO-CONTROLOGICO AND CONTROLOGICO AND AND CONTROLOGICO AND CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTROLOGICO CONTRO	Condition of Well, Rem	15.29	473	7.26	2.15	11.8	0.48		
	e Suite Obt	of the second displays	d	Souries:	6/30	w	TER	ا دا	enu	// ~		
) Neg Sample	p #6,434(Lb#05-47750-6	an Chunkun		FE = O								
() (Samples text for the end	54 Y	n _j t		Of Sample 10		Sampler's Signature:						
temperatory	vel Dermail	9	H A A A A A A A A A A A A A A A A A A A	Cample Time \$25 Cherked by: () Metals Sample Filter Date 7/11/10								

EXPLOSIVES

MUX 1 DNX / TN

TOC

TT L / SUFATE /

NTIRATE /

CHLORNOR

PERCHUMA 1E

CHLORNATE /

CHLONIZ

LOW-FLO	DW GF	ROUN	NDWATER S	SAMPLING DAT	TA SHEET				Page	of		
0		Date	,									
SHOW	016	71	11/16	Purge/Samp	le Equipme	nt	Water-quality Equipment					
Samplers' Ini	tials	Time										
A) M)			() Peristaltic:			Water-level Meter:					
Casing Diame		Casing	Stickup (ft)				Water-lever Wieter:					
e 4"				Bladder: Cas	steel		Oil-water Interface Meter:					
Initial Water	Level (ft	Total V	Vall Dankle I		<u> </u>							
(6.°	38	(ft-bto	c) 3 io	() Other:			Parameter	r Meter(s): T	Cond nH DO	ORP NTU		
Autoria da la	inal Water Level Screened Interval						· di dinetei	Wieter(s).	cond pir bo			
(ft-btoc)	-btoc) (ft-btoc)					45	1 54	4				
	urge Volume Sample Depth											
(liters)	(ft-btoc)						Turbidity	Meter: Ho	ch.	राक्य		
Time	Depth to (ft)	. 1	Pumping Rate (I/min)	Purge Volume (liters)	Temp.	Cond. (µS/cm)	рН	00 % (mg/L)	ORP (mV)	Turb. (NTU)		
10:90	16.		125	O	14.41	837	741	277	98.2			
(0:50)		2	1	1250		000	7.45	0.51	84.8			
10:55	lle	3	1 6	Proo	13.71	819	749	6.39	85.4			
11:00	16.	3	1	1500	15.79	800	7.57	0.34	85,1	85		
11:05	16	.3	1	3,275	13.8	-		8.34		4.55		
12:10	16.	1	1	3.9	13.75			0.41				
11:15	16.	3	1	4.525	13.79	771		85,6		5.24		
11:20	14.	3	1	5.15	13.79	770	7.39	0.37	108	5.34		
11:25		3	1	5.775	13.79	775		0.31				
Full Samp	le Suite Oi	btained		Condition of Well, Rem	narks: Re	طبع	_ 4		ولعه	6		
() Partial Sar			ed									
() No Sample				Took aplicate at 11:45						8		
QC Samples	_		MS/MSD	547	COU!	Q,						
See COC for ana	$\overline{}$		-				Sampler's	Signature:				
	Sample ID: S DN			QC Sample ID: Sample Time: Checked by:					_			
Respiratory:	ver Derina	D C		() Metals Sample Filte	red	Filter	Date: 1	Inte				

FE=0.02 mg/v MN=0.048 mg/v

LOW-FLOW GROUNDWATER SAMPLING DATA SHEET					Page of							
CAM	10	ate	11/16						****			
Samplers' In		ime	1110	Purge/Samp	le Equipme	nt	Wa	ter-quality	Equipme	ent		
SUL	,	10	58	() Peristaltic			K Water-leve	ECK 7	,00°			
Casing Diam	eter (in)	asing !	Stickup (ft)	GEOTELH	1.66 X	18		. weter.				
initial Water	r Level (frit	otal M	/ell Denth	Xi Bladder:			Oil-water	interface Me	ter:			
btoc) 2	le	ft-btoo	30	() Other:				556 Meter(s): T		000 4574		
Final Water (ft-btoc)	_ (ft-bto					r al ameter	weter(s).	Cond pri DO	OKP NTO		
25.	-	- Contract	0-35 P Depth									
Orters)		ft-bto					HA Turbidity	CH 2 Meter:	Qwl.			
Time	Depth to V	Vater	Pumping Rate (I/min)	Purge Volume (liters)	Temp.	Cond.	pН	00 */mg/b	ORP (mV)	Turb.		
1245			125 ML	. o. e voione (mers)	17.76		-	2 = 4		(NTU) 2101		
1250					15.23	SAB	اا.ما	3.96				
1265			************************					4.33	0	32.3		
1300							1	459			-	
1305								4.62				
1310						1 -		4.40)	
		_										
	<u></u>				<u> </u>	<u> </u>						
Full Same	ole Suite Obi	aned		Condition of Well, Rem			. *		LEON XC	47 X 12 VE2	ישע	
() Partial Sa	mple Suite (Obtaine	rd	SETTING:			- N	A TO	6		l	
() No Sample	le Obtained			1120:10	DED A	E B		a: TIE	121	WATE	1500	eate/
QC Samples FD FS RB AB MS/MSQ				RUPTO REPLACE GLADDER TIC/NITHATE 1139: RESTART Sampler's Signature:								
See COC for an Sample 10	54.M	द्धा	2	QC Sample 10 - 54	NAU LW12		Sampler's	Signature:	SL		DEAT C	Thunh?
Protective Le Respiratory	ever Cerma	0) c	P 7	Sample Time: 2	45	Filter	Checked to Date.	7/11/10	<u>.</u>		CHU	MATE!
	3:7U			P (NO WA			<u> </u>			n ro	, , , , , , , , , , , , , , , , , , ,	HUNITE
_					, .							

TROUBLESHOT

1239: HANGED PUMP; WATER WITH I MIN IN FLOW CELL

FE = 0.02 Mg/L HN=0.033m/L

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IW-FLOW GROUNDWATER SAMPLING DATA SHEET	Dage of

3	Oat		1								
DAMU13		7/11/16		Purge/Sampl	Water-quality Equipment						
amplers' ti	nitials Tim	e									
				() Peristaltic:	Water-level Meter:						
Casing Diameter (in) Casing Stickup (ft)		· · · · · · · · · · · · · · · · · · ·									
				**							
ritial Water Level (ft Total Well Depth			() Bladder:	Oil-water Interface Meter:							
ator)	167	btoc									
21.81 22		7	() Other:		Parameter Meter(s): T Cond pH DO ORP NTU						
Final Wate	1		d Interval								
(ft-btoc)	l(rt	-btoc)								
Purge Volu	ume Sa	mole	Depth								
(liters)	1	(ft-btoc)			Turbidity Meter:						
	Depth to Wa	ter	Pumping Rate	T	Temp.	Cond.		DO	T	Turb.	
Time	(ft)		(I/min)	Purge Volume (liters)	°C/°F	(µS/cm)	ρН	%/mg/L	ORP (mV)	(NTU)	
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	1										
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		\neg									
		-						 	 		
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						1				,	
() Full Sample Suite Obtained				Condition of Well, Remarks:							
() Partial Sample Suite Obtained											
7.5.05				1							
() No San	nple Obtained			1							
QC Samples: FD FS RB AB MS/MSD				_			Complete	Cianatura			
See COC for analyses requested				QC Sample ID :	Sampler's Signature:						
Sample IO: Protective Level Dermal: D C B A				Sample Time:	Checked by:						
Beconstory D C B A				() Metals Sample Filter	Date:						

7/11/10-NOT ENOUGH WATER TO SAMPLE

Log Book #_ Page 2 of 2 LOW-FLOW GROUNDWATER SAMPLING DATA SHEET 7/14/16 54 MWH **Water-quality Equipment** Purge/Sample Equipment Samplers' Initials KECK 200' SUL 1000 Casing Diameter (in) | Casing Stickup (ft) GEUTELY 1.60 X 18 K Bladder Oil-water Interface Meter: initial Water Level (ft Total Well Depth YSI 55-~~~~B 25.33 () Other: Parameter Meter(s): T Cond pH DO ORP NTU Final Water Level Screened Interval (ft-btoc) (ft-btoc) 23.00 urge Volume Sample Depth HACH 21000 (ft-btoc) 24 Depth to Water **Pumping Rate** (µ5/cm) %/me/L ORP (mV) Purge Volume (liters) 18.91 587 6.98 5.26 -22.2 35.7 .005 175 17.74592697455 21.8 36.8 0101 1015 16.97 599 6.41 3.89 10.225.8 16.46608 6.51 3.39 4.5 17.1 1020 16.44 615 672 3.18 7.8 105 1025 16.506176.793-12-11.27.90 1020 16.44 618 6.78 3.18 10.2 5.07 1035 10.50 619 6823.14-10.146 1040 EXPLOSUES MUX/DOX/THX SETTING: 10/50 1002: FIRSTWATER IN CELL TOC Partial Sample Suite Obtained TIL/SUFATE/NTRATE/ FE= 6. 14 mg/L CHLORIDE MN-0.062 mg/L PERCHLORATE QC Sample 10 : POP SAVWO 12 CHEORAGE! CHURITE

* TOTAL WELL DEPTH IN PREV. REPORTS

AND WELL WAS RECORDED AS 22' BTUL;

REMEASURED USING WATER LEVEL METER