

Florida Onsite Sewage Nitrogen Reduction Strategies Study

Task C.24

C-HS1 Monitoring Sample Event Report No. 1

Progress Report

June 2011



HAZEN AND SAWYER Environmental Engineers & Scientists In association with



OTIS ENVIRONMENTAL CONSULTANTS, LLC

Florida Onsite Sewage Nitrogen Reduction Strategies Study

TASK C.24 PROGRESS REPORT

C-HS1 Monitoring Sample Event Report No. 1

Prepared for:

Florida Department of Health Division of Environmental Health Bureau of Onsite Sewage Programs 4042 Bald Cypress Way Bin #A-08 Tallahassee, FL 32399-1713

FDOH Contract CORCL

June 2011

Prepared by:



In Association With:





C-HS1 Monitoring Sample Event Report No. 1

1.0 Background

Task C of the Florida Onsite Sewage Nitrogen Reduction Strategies Study includes monitoring at field sites in Florida to evaluate nitrogen reduction in soil and groundwater, to assess groundwater impacts from various onsite wastewater systems, and to provide data for parameter estimation, verification, and validation of models developed in Task D. The Task C.5 QAPP documents the objectives, monitoring framework, sample frequency and duration, and analytical methods to be used at the field sites. The Task C.23 Instrumentation of C-HS1 mound system and plume progress report documents the field site layout, number and location of monitoring points, and preliminary field parameters from monitoring points for this Wakulla County, Florida field site, and preliminary sample collection and analyses.

2.0 Purpose

This sample event report documents data collected from the first C-HS1 monitoring and sampling event conducted May 19, 2011 and May 20, 2011. This monitoring event consisted of measurement of household water meters, groundwater elevation measured within the standpipe piezometers, measurement of field parameters, and collection of groundwater samples and their analyses by a NELAC certified laboratory.

3.0 Materials and Methods

3.1 Project Site

The C-HS1 field site is located in Wakulla County, FL in a neighborhood near the Wakulla River. The drainfield mound at the site contains two drainfields. One drainfield serves the residence onsite and the second drainfield is part of the septic system for the house across the street which is located adjacent to the Wakulla River. The septic system for the residence onsite consists of a standard baffled septic tank located in the mound and has a gravity fed plastic tubing industries (PTI) multi-pipe bed drainfield. The septic system for the house across the dirt road has a standard baffled tank and a pump tank used to pump the effluent under the road to a separate PTI bed drainfield. Except for the drainfield mound, the house, and a small garden, the site is wooded and heavily vegetated.

3.2 Operational Monitoring

The water meters for both houses that have drainfields in the mound at the C-HS1 field site were read and recorded. The homeowners at the site residence do have a garden with irrigation thus the actual wastewater flow can only be estimated. Although the neighboring residence does not have a garden, there is outside water use for other activities such as vehicle washing and landscape plant watering. A weather station (Wakulla Springs, Shadeville) is located approximately 3 miles from the site. Data from this weather station is available at the following website: http://www.wunderground.com

3.3 Monitoring and Sample Locations and Identification

A schematic of the site monitoring network is shown in Figure 1. Three types of monitoring points were installed: drive point samplers, standpipe piezometers, and soil lysimeters (refer to the Task C QAPP and Task C.23 C-HS1 Progress Report for additional detail). Each groundwater monitoring location has been assigned a unique identification indicating the type of monitoring point (DP = drive point, PZ = standpipe piezometer, LY = soil lysimeter). Drive point samplers consist of a stainless steel drive tip and attached 1-inch long screen connected to flexible tubing that extends to the ground surface. Standpipe piezometers consist of a 5 foot, ³/₄ inch diameter PVC screen with a PVC riser extending to the surface. The two soil lysimeters have a 9 inch ceramic cup attached to 2 inch PVC pipe with a cap fitted with two valves. A total of 23 specific monitoring locations were sampled during this first C-HS1 sampling event. For reference, a complete listing of the C-HS1 sample locations is presented in Appendix A.

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3.4 Groundwater Elevation Measurments

Groundwater level measurements are used to determine hydraulic gradients, directions of flow, rates of flow, locations of groundwater recharge and discharge, the amount of water in storage, the change in storage over time, and aquifer hydraulic characteristics. Groundwater levels were measured using a flat tape water level meter graduated in feet (measurement accuracy is 0.01 ft). The groundwater level within all 15 standpipe piezometers was measured consecutively on May 19, 2011 for this sampling event. Measuring all the standpipe piezometers over a short period of time (approximately 45 minutes) provides a snapshot of the groundwater prior to any sampling. Groundwater levels were measured again prior to purging the piezometer for sampling.

3.5 Water Quality Sample Collection and Analyses

Groundwater and septic tank effluent (STE) were collected May 19-20, 2011 for water quality analysis. A sample was collected from the septic tank outlet filter to represent the effluent delivered to the drainfield. A peristaltic pump was used to collect STE directly into the analysis-specific containers supplied by the analytical laboratory. Groundwater samples were obtained using a peristaltic pump, which was either attached directly to the drive point tubing or to dedicated standpipe piezometer tubing. Samples were collected into the analysis-specific containers after sufficient purging (the sample was clear and pH and conductivity readings had stabilized) had occurred. A 50 KPa vacuum was placed on the soil lysimeters the day before sampling. The first 200+ mL of sample was used to rinse the lysimeter and sample tubes before taking the sample. Field parameters were then recorded.

The analysis-specific containers were supplied by the analytical laboratory and contained appropriate preservatives. The analysis-specific containers were labeled, placed in coolers and transported on ice to the analytical laboratory. Each sample container was secured in packing material as appropriate to prevent damage and spills, and was recorded on chain-of-custody forms supplied by the laboratory. Chain of custody forms, provided in Appendix B, were used to document the transfer of samples from field personnel to the analytical laboratory. Also provided in Appendix B are groundwater sampling logs.

In addition, the field sample duplicates were collected immediately subsequent to the regular samples. The field duplicate samples taken include:

- PZ-01
- PZ-07
- DP-03

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY C-HS1 MONITORING SAMPLE EVENT REPORT NO. 1 Field parameters (pH, specific conductance, temperature (Temp), and dissolved oxygen (DO)) were measured using portable electronic probes with probe tips placed in an overflowing plastic beaker as groundwater was being pumped. All samples were analyzed by the laboratory for: total alkalinity, total Kjeldahl nitrogen (TKN-N), ammonia nitrogen (NH₃-N), nitrate/nitrite nitrogen (NO_X-N), chemical oxygen demand (COD), and total phosphorus (TP). Additionally, the STE sample was analyzed for carbonaceous biological oxygen demand (CBOD₅), total suspended solids (TSS), and total solids % by weight (TS), but not COD. All analyses were performed by an independent and fully certified analytical laboratory (Southern Analytical Laboratory). Table 1 lists the analytical parameters, analytical methods, and detection limits for these analyses.

Analytical Latameters,	method of Analysis, and	
Analytical Parameter	Method of Analysis	Laboratory Detection Limit (mg/L)
Total Alkalinity as CaCO ₃	SM 2320B	2 mg/L
Chemical Oxygen Demand (COD)	EPA 410.4	10 mg/L
Total Kjeldahl Nitrogen (TKN-N)	EPA 351.2	0.05 mg/L
Ammonia Nitrogen (NH ₃ -N)	EPA 350.1	0.005 mg/L
Nitrate/Nitrite Nitrogen (NO _X -N)	EPA 300.0	0.02 mg/L
Total Phosphorus (TP)	SM 4500P-E	0.01 mg/L
Carbonaceous Biological Oxygen Demand (CBOD ₅)	SM5210B	2 mg/L
Total Solids (TS)	EPA 160.3	.01 % by wt
Total Suspended Solids (TSS)	SM 2540D	1 mg/L

Table 1
Analytical Parameters, Method of Analysis, and Detection Limits

4.0 Results

Once analytical results are obtained from the laboratory, the C-HS1 Data Summary Report No. 1 (Task C.25) will be prepared describing the results from this sampling event.

4.1 Operational Monitoring and Site Conditions

Table 2 summarizes the water meter readings and average daily water use for the residence at site C-HS1 and the second residence which has a drainfield in the mound at site C-HS1.

vvaler	weter Readings and wa	ter Usage for C-HST	
Residence	Date and Time Read	Meter Reading	Gallons/day
C-HS1 Residence	4/27/2011 16:30	692569.7	
	5/20/2011 16:15	695923.1	145.9
Neighboring Residence	4/27/2011 15:55	663669.6	
	5/20/2011 16:15	666348.5	116.4

 Table 2

 Water Meter Readings and Water Usage for C-HS1

Monthly recorded meteorological data is provided in Appendix C. Table 3 provides the recorded meteorological data daily averages leading up to and during the sample event. Lower than normal rainfall has been reported in the Florida panhandle during the winter and spring months. Rainfall was generally approximately one inch below the long term average across the panhandle in March, three inches below average for most areas in April, and approximately three inches below average in May.

	n elegieur I		/ li el agee	measured may 1	• , =• • • • • • • • • •	, _ •, _ • · ·
Date	Te	emperatur (°F)	е	Humidity (%)	Wind (mph)	Rain Total (in)
	High	Avg	Low	Avg	Avg	Sum
5/15/11	76	67	58	63	8	0
5/16/11	76	63	50	61	9	0
5/17/11	77	64	50	57	8	0
5/18/11	82	63	43	55	4	0
5/19/11	89	69	48	54	2	0
5/20/11	95	74	52	53	3	0

 Table 3

 Meteorological Data Daily Averages Measured May 15, 2011 – May 20, 2011

4.2 Groundwater Levels

Groundwater level monitoring has been conducted a total of four times (September 2010, November 2010, April 2011 and May 2011) of the seven months since the first piezometers were installed in September 2010. Water levels were measured at all standpipe piezometers on May 19, 2011 for this sampling event as summarized in Table 4. Figure 2 illustrates the surficial groundwater contours as measured within the standpipe piezometers on May 19, 2011. The groundwater elevations have been found

to fluctuate due to periods of dry weather and/or heavy precipitation; however, the general flow-path does not change.

> Table 4 Standpipe Piezometer Groundwater Levels

Measured	on May 19, 2011
Identification	Water Table Elevation (ft) May 19, 2011
PZ-01	91.26
PZ-02	91.46
PZ-03	91.39
PZ-04	91.64
PZ-05	91.09
PZ-06	91.08
PZ-07	91.42
PZ-08	91.43
PZ-09	91.47
PZ-10	91.41
PZ-11	91.33
PZ-12	91.18
PZ-13	91.30
PZ-14	91.76
PZ-15	91.43

Identification	Elevation (ft) May 19, 2011
PZ-01	91.26
PZ-02	91.46
PZ-03	91.39
D7 04	04.04

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Figure 2 Surficial Groundwater Contours May 19, 2011

4.3 Water Quality

Field parameters (temperature, pH, dissolved oxygen (DO), and specific conductivity) were measured prior to sample collection. Field parameter results are listed in Appendix D. One of the drive points (DP-08) did not yield water and therefore was not sampled. Two of the standpipe piezometers (PZ-08 and PZ-14) had very low re-charge rates, taking over an hour to recharge, and therefore were not sampled. Once analytical results are obtained from the laboratory, C-HS1 Data Summary Report No. 1 (Task C25) will be prepared describing the results from this sampling event.



Appendix A: C-HS1 Sample Identification

		Table A.1 C-HS1 Sample Iden	tification	
	Sample ID	Type of Monitoring Point	Surface Elevation (ft)	Bottom Elevation (ft)
1	STE	Waste Water	NA	NA
2	DP-01	1" Drive Point	96.30	87.05
3	DP-02	1" Drive Point	95.61	86.71
4	DP-03	1" Drive Point	96.33	86.49
5	DP-04	1" Drive Point	96.32	85.71
6	DP-05	1" Drive Point	96.25	86.70
7	DP-06	1" Drive Point	96.05	87.35
8	DP-07	1" Drive Point	96.24	90.14
9	DP-08	1" Drive Point	97.41	89.89
10	PZ-01	3/4" Standpipe Piezometer	95.73	85.11
11	PZ-02	3/4" Standpipe Piezometer	96.17	86.99
12	PZ-03	3/4" Standpipe Piezometer	96.54	88.66
13	PZ-04	3/4" Standpipe Piezometer	95.77	85.76
14	PZ-05	3/4" Standpipe Piezometer	96.06	87.99
15	PZ-06	3/4" Standpipe Piezometer	95.57	90.26
16	PZ-07	3/4" Standpipe Piezometer	99.84	87.22
17	PZ-08	3/4" Standpipe Piezometer	95.91	89.69
18	PZ-09	3/4" Standpipe Piezometer	96.33	86.73
19	PZ-10	3/4" Standpipe Piezometer	95.97	88.80
20	PZ-11	3/4" Standpipe Piezometer	97.17	85.27
21	PZ-12	3/4" Standpipe Piezometer	96.36	87.93
22	PZ-13	3/4" Standpipe Piezometer	97.15	89.44
23	PZ-14	3/4" Standpipe Piezometer	97.31	89.84
24	PZ-15	3/4" Standpipe Piezometer	99.79	86.73
25	LY-01	Soil Lysimeter	99.84	≈93.84
26	LY-02	Soil Lysimeter	99.79	≈93.79



Appendix B: Chain of Custody Forms

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY C-HS1 MONITORING SAMPLE EVENT REPORT NO. 1

PAGE B-1 HAZEN AND SAWYER, P.C.

SAL Project No. 1104283

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

Client	Name Haz	an and Sawyer								Contact / Josephin	Phone: Edeback-H	irst 813-6	30-4498		
Projec	t Name / Location			·····		_				jedeback(@hazanand	sawyer.co	m		
Samp	ers: (Signature) Wak	ulla County C-H	1S1 SE#1	r						L					<u>.</u>
	<u> </u>		_					PAR	AMETER /	CONTAIN	ER DESCR	IPTION			.
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Use Only Sample No.	Sample Description	Date	Time	Matrix	Composit	Grab	250ml P, (Alkalinity	250 ml P, TKN, NH ₃	1LP, Cool Alk, TSS,	250 ml P, TKN, NH ₃					No. of Co per each
01	C-HS1-STE	5/19/11	12:45	WW		x		1	1		• 24				
02	C-HS1-PZ01			GW		x	· 1			1					
03	C-HS1-PZ01-D		-	GW	•	x	1			1					
04	C-HS1-PZ02		1	GW		x	1			1					
05	C-HS1-PZ03			GW		x	1			1					
06	C-HS1-PZ04			GW		x	1			1					
07	C-HS1-PZ05			GW		x	. 1			1					
08	C-HS1-PZ06			GW		x	<u> </u>			1					L
09	C-HS1-PZ07			GŴ		x	1			1.	<u> </u>				
10	C-HS1-PZ07-D			GW		x	1			1					
11	C-HS1-PZ08			GW		x	11			. 1					
12	C-HS1-PZ09			GW		x	1			1					
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	Samp	ers: (Signature)		<u>u o o o nij o n</u>				Τ		PAR	AMETER /				······		
	SAŁ Use Only Sampie No.	Matrix Codes: DW-Drinking Water WW-W SW-SurfaceWater SL-Sludg GW-Groundwater SA-Saline W R-Reagent Water Sample Descrip	Vastewater ge SO-Soil later O-Other	Date	Time	Matrix	Composite	Grab	250ml P, Cool Alkalinity	250 ml P, H ₂ SO4 TKN, NH ₃ , NOX, TP	1LP, Cool Alk, TSS, TS, CBOD	250 ml P, H ₂ SO4 TKN, NH ₃ , NOX, TP, COD	Temp .C	Cond	P H	D. U. war	No. of Containers (Total per each location)
	01	C-HS1-STE		5/19/11	12:45	Kw		x		1	1		22.3	1367	7.20	1.36	
	02	C-HS1-PZ01		5/20/11	10:11	GW		x	1			1	18.9	75	5.83	071	
	03	C-HS1-PZ01-D	·	5/20/11	10:09	GW		x	1			1					
	04	C-HS1-PZ02		5/19/11	15:39	GW	\square	×	1			1	19.2	516	7.10	3.02	
	05	C-HS1-PZ03		5/19/11	15:06	GW		×				1	19.0	500	7.10	1.95	
4	06	C-HS1-PZ04	16:11	5/19/11	17:30	16-11 GW		×	1			1	19.2	674	7.20	1,45	
	07	C-HS1-PZ05		Slzolu	11:00	GW	\square	×			, 	1	18.8	752	660	2,58	
	08	C-HS1-PZ06		5/19/11	14:37	GW		×				1	21.3	580	7.29	6.86	
	09	C-HS1-PZ07		5/29/11	15:26	GW	\downarrow \downarrow	хļ	1			1	19.6	999	6.50	1.04	
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SAL Project No. 1104283

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

Client	Name										Contact / F	Phone:		0.4408		
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Projec	t Name / Location	Makull	o County C H	01 00#1							Jedeback	unazanano	Isawyer.cor	<u>n</u>		
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	R-Reagent Water	rater O-Other						~	0, ×	ĕ	0 ×		1		~	tion)
SAL Use Only Sample No.	Sample Descri	ption	Date	Time	Matrix	Composite	Grab	250ml P, Coo Alkalinity	250 ml P, H ₂ S TKN, NH ₃ , NC	1LP, Cool Alk, TSS, TS,	250 ml P, H ₂ S TKN, NH ₃ , NC	Temp	Cond	0 H	Ď.	No. of Contail per each loca
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15	C-HS1-PZ12		5/20/11	12:70	GW	+	X				1	19.0	692	6.00	149	
16	C-HS1-PZ13		Chalu	12.27	GW	+	×	1			1	10-1	612	and and	10	
17	C-HS1-PZ14		2//9///		GW		×				1	100		1010	KE	
18	C-HS1-DP01		5/2///	10:36	GW		X	1			1	18.6	845	6.60	0.84	
19	C-HS1-DP02		5/20/11	10:22	GW		×	1			1	18.7	770	6.60	0.56	
20	C-HS1-DP03		5/20/11	12:38	GW		x	_ 1			1	18.6	868	6.60	0.44	
21	C-HS1-DP03-D		5/20/11	12:40	GW		x	1			1					
22	C-HS1-DP04	-	5/19/11	17:30	GW		x	1			1	18.8	570	7,10	0.38	
23	C-HS1-DP05		5/19/11	18:26	GW		x	1			1	20.6	830	7.10	1.50	
24	C-HS1-DP06		5/19/11	16:54	GW		x	1			. 1	19.2	926	7.00	0.49	
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SAL Project No. 104283

110 BAYVIEW BOULEVARD, OLDSMAR, FL 34677 813-855-1844 fax 813-855-2218

	Client	Name	Hazan a	and Sawver								Contact / I Josephiл I	Phone: Edeback-Hi	rst 813-63	0-4498		
Ì	Projec	t Name / Location										jedeback@	hazanand	sawyer.con	<u>1</u>		
	Sampl	ers: (Signature)	Wakulla	a County C-H	IS1 SE#1				·	<u> </u>		l					
	SAL Use	Matrix Codes: DW-Drinking Water WW-Wast SW-SurfaceWater SL-Sludge 5 GW-Groundwater SA-Saline Water R-Reagent Water	ewater SO-Soil r O-Other				site		P, Cool	P, H ₂ SO₄ H3, NOX, TP	S, TS, CBOD	P, H ₂ SO4 H ₃ , NOX, TP, COD	R DESCRI	ption Sm pu	4	7/4m .C	Containers (Total ch location)
	Only Sample No.	Sample Description	n	Date	Time	Matrix	Compo	Grab	250ml Alkalini	250 ml TKN, N	1LP, C Alk, TS	250 ml TKN, N	P	છ	B	Ď.(No. of per ea
ſ	25	C-HS1-DP07		5/20/11	12:55	GW		x	1			1	18.9	813	6.60	0.46	
	26	C-HS1-DP08		5/19/11	NS	GW		x	1			1	N	0 5	AM	PLE	
	27	C-HS1-LY01		5/20/11	14:40	GW		x	1			1	21.6	788	6.42	4.57	
	28	C-HS1-LY02		5/20/11	14:18	GW		x	1			1	24.2	1433	6.34	1.95	
þ)29	spare 1 A 45ed 29	are In	07 Som	e 2	GW		x	1			1					
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	Containe Relinquis	shed:	e/Time: /500	Received:			Date/	Time	e:	Seal intac Samples	intact upon a	arrival?	Y N WA	Instructio	ns / Rema	rks	
		and shed:	e/Time: 10.50 5-23-11	Received:	ridm	ach	Date/	Time	: 1205 3/11	Received	l on ice? Te	mp(
ľ	kelinquis	Dat	e/ I Ime:	Keceived:			Date/	1 IME) ?	Proper pr Rec'd wit	reservatives thin holding t	indicated? ime?	γ N NA				
ſ	Relinquis	Shed: Dat	e/Time:	Received:		-	Date/	Time		Volatiles	rec'd w/out	headspace	Y N (N)				
Ī	Relinquis	Shed: Dat	e/Time:	Received:			Date/	Time	:	нторег со	untamers us	sur (Y) N NA	11	.04283		

Chain of Custody.xls Rev.Date 11/19/01

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Chain of Custody

SAL Project No. 1104283

INCHINE.	C- H	>1					Wah	ulla (ouny	4	
WELL NO:	PZ-	-1		SAMPLE	ID: C	12 m	10	3	DATE:	5/20	111
					PUR	SING DA	TA	C. Martin			
WELL		TUBING	3 	WE	LL SCREEN	INTERVAL	STATIC	DEPTH	PL	IRGE PUMP T	YPE
DIAMETER	(inches):	1 WELL VOI	TER (inches): LUME = (TOT		тн: м тн - st/	TIC DEPTH T	eet TOWA	TER (feet): X WELL CAPAC			00.1
(only fill out	if applicable)		((a)		(a a t)	~	colloga	20	0 m
EQUIPMEN	T VOLUME PL	RGE: 1 EQL	IPMENT VOL	. = PUMP VOL	UME + (TUI	ING CAPACI	TY X	TUBING LENGTH) + FLOW C	ELL VOLUME	ganons
(only fill out	if applicable)			= ga	allons + (gallo	ons/foot X	feet)+	gallons	= gallons
INITIAL PU	MP OR TUBING	G	FINAL PUM	P OR TUBING	3	PURGIN	G	PURGING	100	TOTAL VO	LUME
DEPTH IN	WELL (feet):		DEPTH IN	WELL (feet):	r	INITIATE	ED AT:	ENDED AT:	20	PURGED (gallons):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	OXYGEN (circle units) mg/L or % saturation	TURBIDI (NTUS	TY COLO (descril	R ODOR (describe)
10:00	6750			4.36	6.02	19.0	77	0.68	Clea	r Lt. ta	n hoye
10:04	7450				5.83	18.9	76	0.79	1	11	11
10:06	8250				5.83	18.9	75	0.21	n Br. Ethernet	TEN - TRA	Maria and
								Contract State			
10:09										2012	See. 1
10:11	8700					R		the set it		1.8 1.97	
					S. 19	200					(P)
					the state of the s			C. Same			
							S S AN	A State of the second	a serve	N.	
								The Plant Service	1	in the	Market State
WELL CAP	ACITY (Gallon:	s Per Foot): (75" ~ 0.02	1" = 0.04	1.0511 - 0.0	and a start of		a Maria I and		a state of the sta	
PURGING	EQUIPMENT C	ODES: B	Ft.): 1/8" = 0. = Bailer;	0006; 3/16" BP = Bladder F	1.25" = 0.0 = 0.0014; Pump; E	6; 2" = 0.1 1/4" = 0.002 SP = Electric	6; 3" = 0.3 6; 5/16" = Submersible f	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P	5" = 1.02; 0.006; 1/. eristaltic Pur	6" = 1.47; 2" = 0.010; np; O = 0	12" = 5.88 5/8" = 0.016 ther (Specify)
PURGING	EQUIPMENT C	PACITY (Gal./ ODES: B FFILIATION:	Ft.): 1/8" = 0. = Bailer;	SAMPLER(S)	1,25" = 0.0 = 0.0014; Pump; I SAMF SIGNATUR	6; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA E(S):	6; 3" = 0.3 6; 5/16" = Submersible f	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A	5" = 1.02; 0.006; 1/ eristattic Pur	6" = 1.47; 2" = 0.010; np; O = 0 SAMPLIN ENDED A	12" = 5.88 5/8" = 0.016 ther (Specify) IG \T:
PURGING SAMPLED PUMP OR DEPTH IN	EQUIPMENT C BY (PRINT) / A TUBING WELL (feet):	ACITY (Gal.// ODES: B FFILIATION:	5.75 = 0.02, Ft.): 1/8" = 0. = Bailer;	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C	1.25" = 0.0 2 = 0.0014; 2 ump; E SIGNATUR ODE:	6; 2" = 0.1 1/4" = 0.002 ISP = Electric LING DA E(S):	8; 3" = 0.3 8; 5/16" = Submersible f ATA FIEL Filtra	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A .D-FILTERED: Y ation Equipment Ty	5" = 1.02; 0.006; 1/2 eristattic Pur T: N ype:	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED A FILTER S	12" = 5.88 5/8" = 0.016 ther (Specify) IG IT: IZE:μm
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC	EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC	ACITY (Gal.// ODES: B FFILIATION: DN: PUM	178 - 0.02, Ft.): 1/8" = 0. = Bailer;	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C	0.0014; 200	6; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA E(S): Y N (ref	6; 3" = 0.3 8; 5/16" = Submersible f ATA FIEI FIEI Filtr. eplaced)	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A .D-FILTERED: Y ation Equipment Ty DUPLICATE	5" = 1.02; 0.006; 1/J eristattic Pur T: N ype: Y	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED A FILTER S	12" = 5.88 5/8" = 0.016 ther (Specify) IG IT: IZE:μm
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMI	EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE	PACITY (Gal./ ODES: B FFILIATION: DN: PUM R SPECIFICA	IP Y N	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C	1.26** = 0.0 * = 0.0014; Pump; SAMF SIGNATUR ODE: TUBING SAMPLE P	6; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA E(S): Y N (re RESERVATIO	6; 3" = 0.3 8; 5/16" = Submersible f ATA FIEI Filtr. eplaced)	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A .D-FILTERED: Y ation Equipment T; DUPLICATE INTEND	5" = 1.02; 0.006; 1/2 eristaltic Pur T: N rpe: Y ED	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED A FILTER S N SAMPLING	12" = 5.88 5/8" = 0.016 ther (Specify) IG \T: IZE:μm SAMPLE PUMP
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE # CONTAINERS	PACITY (Gal./ ODES: B FFILIATION: DN: PUN R SPECIFICA MATERIAL CODE	IP Y N ATION	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C	1.25** = 0.0 * = 0.0014; Dump; SAMF SIGNATUR ODE: TUBING SAMPLE P IVE ADDI	6; 2" = 0.1 1/4" = 0.002 ISP = Electric LING DA E(S): Y N (re RESERVATIO TOTAL VOL ID IN FIELD (r	6; 3" = 0.3 6; 5/16" = Submersible f ATA FIEL Filtr eplaced) N FINAL pH	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A .D-FILTERED: Y ation Equipment T) DUPLICATE INTEND ANALYSIS A METHO	5" = 1.02; 0.006; 1// eristaltic Pur T: N rpe: ED ND/OR F	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN FILTER S N SAMPLING EQUIPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) IG TT: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE # CONTAINERS	PACITY (Gal./ ODES: B FFILIATION: DN: PUM R SPECIFICA MATERIAL CODE	IP Y N ATION VOLUME	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C PRESERVAT USED	1.25** = 0.0 * = 0.0014; Pump; SAMF SIGNATUR ODE: TUBING SAMPLE P IVE ADDI	6; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA E(S): Y N (re RESERVATIO TOTAL VOL ED IN FIELD (r	6; 3" = 0.3 6; 5/16" = Submersible f ATA FIEI Filtr. eplaced) N FINAI mL) PH	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A .D-FILTERED: Y ation Equipment Ty DUPLICATE INTEND ANALYSIS A METHC	5" = 1.02; 0.006; 1/7 eristaltic Pur T: N ype: : Y ED ND/OR I	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED A FILTER S N SAMPLING EQUIPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
PURGING PURPOR DEPTHIN FIELD DEC SAMPLE ID CODE	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE CONTAINERS	PACITY (Gal./ ODES: B FFILIATION: DN: PUM R SPECIFICA MATERIAL CODE	IP Y N VOLUME	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C	1.25** = 0.0 *= 0.0014; Pump; II SAMF SIGNATUR ODE: TUBING SAMPLE P IVE ADDI	6; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA E(S): Y N (re RESERVATIO TOTAL VOL D IN FIELD (r	6; 3" = 0.3 8; 5/16" = Submersible f ATA FIEI Filtra eplaced) N FINAI pH	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A .D-FILTERED: Y ation Equipment Ty DUPLICATE INTEND ANALYSIS A METHC	5" = 1.02; 0.008; 1// eristaltic Pur T: N /pe: Y ED ND/OR I	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN FILTER S N SAMPLING EQUIPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) IG \T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE # CONTAINERS	PACITY (Gal./ ODES: B FFILIATION: DN: PUN R SPECIFICA MATERIAL CODE	IP Y N ATION VOLUME	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C	1.25** = 0.0 *= 0.0014; *ump; II SAMF SIGNATUR ODE: TUBING SAMPLE P IVE ADDI	6; 2" = 0.1 1/4" = 0.002 ISP = Electric LING DA E(S): Y N (re RESERVATIO TOTAL VOL ID IN FIELD (r	6; 3" = 0.3 6; 5/16" = Submersible f ATA FIEL Filtr eplaced) WN FINAL PH	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A D-FILTERED: Y ation Equipment T; DUPLICATE INTEND ANALYSIS A METHC	5" = 1.02; 0.006; 1// eristaltic Pur T: N rpe: Y ED ND/OR ED	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN FILTER S N SAMPLING EQUIPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE # CONTAINERS	PACITY (Gal./ ODES: B FFILIATION: DN: PUM R SPECIFICA MATERIAL CODE	NO Y OLUME	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C PRESERVAT USED	1.25** = 0.0 * = 0.0014; Pump; I SAMF SIGNATUR ODE: TUBING SAMPLE P IVE ADDI	6; 2" = 0.1 1/4" = 0.002 ISP = Electric LING DA E(S): Y N (re RESERVATIO TOTAL VOL D IN FIELD (r	6; 3" = 0.3 6; 5/16" = Submersible f ATA FIEI Filtr. eplaced) N FINAL pH	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A .D-FILTERED: Y ation Equipment Ty DUPLICATE INTEND ANALYSIS A METHO	5" = 1.02; 0.008; 1/7 eristaltic Pur T: N ype: : Y ED ND/OR B D	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED A FILTER S N SAMPLING EQUIPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) IG IT: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
PURGING PURPOR DEPTHIN FIELD DEC SAMPLE ID CODE	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIO PLE CONTAINE CONTAINERS	PACITY (Gal./ ODES: B FFILIATION: DN: PUM R SPECIFICA MATERIAL CODE	IP Y N ATION VOLUME	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C	ALE POLICIAL CONTRACTOR OF A C	6; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA E(S): Y N (re RESERVATIO TOTAL VOL D IN FIELD (r	6; 3" = 0.3 8; 5/16" = Submersible f ATA FIEI Filtr eplaced) N M FINAI pH	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A D-FILTERED: Y ation Equipment Ty DUPLICATE INTEND ANALYSIS A METHC	5" = 1.02; 0.006; 1// eristaltic Pur T; N rpe: : Y ED ND/OR P	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED A FILTER S N SAMPLING EQUIPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) IG \T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE REMARKS	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINERS	PACITY (Gal./ ODES: B FFILIATION: DN: PUN R SPECIFICA MATERIAL CODE	IP Y N ATION VOLUME	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C	ALE POLICIAL CONTRACTOR OF A C	6; 2" = 0.1 1/4" = 0.002 ISP = Electric LING DA E(S): Y N (rec RESERVATIO TOTAL VOL ID IN FIELD (r	6; 3" = 0.3 6; 5/16" = Submersible f ATA FIEL Filtr. eplaced) N mL) FINAL pH	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A D-FILTERED: Y ation Equipment Ty DUPLICATE INTEND ANALYSIS A METHC	5" = 1.02; 0.006; 1// eristaltic Pur T: N rpe: Y ED ND/OR P	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED A FILTER S N SAMPLING EQUIPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) IG T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE REMARKS	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE CONTAINERS	ACITY (Gal./ ODES: B FFILIATION: DN: PUN R SPECIFICA MATERIAL CODE AG = Amber	Glass; CG :	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C PRESERVAT USED	PE = Pol	6; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA E(S): Y N (re RESERVATIO TOTAL VOL D IN FIELD (r	6; 3" = 0.3 6; 5/16" = Submersible f ATA FIEI Filtra eplaced) N FINAI mL) PH PH PH	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A D-FILTERED: Y ation Equipment Ty DUPLICATE INTEND ANALYSIS A METHC PUPLICATE S = SIlic	5" = 1.02; 0.006; 1/7 eristaltic Pur T: N recistaltic Pur T: P ED ND/OR D D ND/OR P D D C T = 1	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED A FILTER S N SAMPLING EQUIPMENT CODE 	12" = 5.88 5/8" = 0.016 ther (Specify) IG \T: IZE: μm SAMPLE PUMP FLOW RATE (mL per minute)
PURGING SAMPLED PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE REMARKS MATERIAL SAMPLINC	BY (PRINT) / A TUBING WELL (feet): CONTAMINATIC PLE CONTAINE CONTAINERS	ACITY (Gal./ ODES: B FFILIATION: DN: PUN R SPECIFICA MATERIAL CODE AG = Amber CODES: /	Glass; CG :	0006; 3/16" BP = Bladder F SAMPLER(S) TUBING MATERIAL C PRESERVAT USED	PE = Pol	6; 2" = 0.1 1/4" = 0.002 ISP = Electric LING DA E(S): Y N (re RESERVATIO TOTAL VOL D IN FIELD (r V V V V V V V V N FIELD (r V V V V V V V V V V V V V	6; 3" = 0.3 6; 5/16" = Submersible f ATA FIEI Filtr eplaced) N FINAI pH PP = Polypro Bladder Pum	7; 4" = 0.65; 0.004; 3/8" = (Pump; PP = P SAMPLING INITIATED A D-FILTERED: Y ation Equipment Ty DUPLICATE INTEND ANALYSIS A METHO SESP = Elect	5" = 1.02; 0.006; 1// eristaltic Pur T: N Pe: Y ED ND/OR ED ND/OR ED ND/OR ED T: T: T: T: T: T: T: T: T: T:	6" = 1.47; 2" = 0.010; np; O = O SAMPLIN ENDED / FILTER S N SAMPLING EQUIPMENT CODE 	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

SITE NAME:	C-H	51				SITE LOCATION:	Wa	Kulla	(04)	nty		
WELL NO:	PZ	-2		SAMPI	E ID:	04			DATE:	511	19/1	1
					PUF	RGING DA	ATA					
WELL	(inches):	TUBIN	G TER (inches):	W D	ELL SCREE	N INTERVAL feet to	STAT feet TO W	IC DEPTH /ATER (feet):		PURGE OR BAI	PUMP TYPE	E
WELL VOL (only fill out	UME PURGE: if applicable)	1 WELL VO	LUME = (TOT = (AL WELL DI	FPTH - S	TATIC DEPTH	TO WATER)	X WELL CAP	PACITY	s/foot	154	13 ml
EQUIPMEN (only fill out	IT VOLUME PI	URGE: 1 EQI	JIPMENT VOL	= PUMP V(DLUME + (T	UBING CAPAC	ITY X	TUBING LENC	STH) + FLOV	V CELL \	/OLUME	
		6			gallons + (PURGI	NG	PURGIN		- Т		gailons
DEPTH IN	WELL (feet):		DEPTH IN	WELL (feet):		INITIAT	ED AT:	ENDED	AT:	PI	JRGED (gallo	ons):
TIME	VOLUME PURGED (gallons)	CUMUŁ. VOLUME PURGED (galions)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standar units)	d TEMP. (^o C)	COND. (circle unit μmhos/cn <u>or</u> μS/cm	n DISSOLV OXYGEI n (circle uni mg/L <u>o</u> % saturati	ED N TURE ts) (NT on	BIDITY TUs)	COLOR (describe)	ODOR (describe)
15:29	3600		_	4.48	7.28	20.7	SIS	3.1/		51,	hy class	y von.p
15:23	4000				7.10	19.6	516	2.97	-		Clear	Non .
15:37	4900				7.10	19.2	516	3.02	2		Clegr	None
15:31	5060	ļ										
						-01						
÷			-				-			1 1011 1220 3		
	· · · · ·										-	
					-	_	+					
					··· · · ·					14		
	.		_			-10				<u>्</u> ष		
WELL CAP	ACITY (Gallon	s Per Foot): PACITY (Gal.)	0.75" = 0.02; Ft.): 1/8" = 0.	1" = 0.04; 0006: 3/1	1.25 " = 0 6" = 0.0014).06; 2" = 0. 1/4" = 0.00	16; 3" = 0. 26: 5/16 "	.37; 4" = 0.65 = 0.004: 3/8'	5" = 1.02	2; 6" : 1/2" = (= 1.47; 12	" = 5.88 " = 0.016
PURGING		ODES: E	= Bailer;	BP = Bladde	r Pump;	ESP = Electric	: Submersible	e Pump; PP	= Peristaltic	Pump;	O = Othe	r (Specify)
			-		SAM	PLING D	ΑΤΑ					
SAMPLED	BY (PRINT) / A	FFILIATION:		SAMPLER(S) SIGNATL	IRE(S):		SAMPLIN	IG D AT:		SAMPLING ENDED AT:	
PUMP OR	TUBING						FI	ELD-FILTERED:	Y N		FILTER SIZE	:µm
FIELD DEC		ON: PUN	MPYN	WATENAL	TUBING	G Y N(replaced)		TE: Y	,	N	
SAME		R SPECIFIC			SAMPLE	PRESERVATIO		INTE	NDED	SAM		
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERV		TOTAL VOL DED IN FIELD	(mL) pH	AL ANALYS	IS AND/OR THOD	EQUI	PMENT DDE (1	FLOW RATE mL per minute)
									an e alathe e			
										<u> </u>		
										 		
REMARKS]]	····			
REIWARKS												
MATERIAL	CODES	AG = Amber	Glass; CG =	Clear Glass	; PE = P	olyethylene;	PP = Polypi	ropylene; S = S	Silicone; T	= Teflon	; O = Othe	er (Specify)
SAMPLING		CODES:	APP = After Pe	eristaltic Pum	p: B = I	Bailer; BP	= Bladder Pur	mp; ESP = E	lectric Subm	ersible P	ump;	
NOTES: 1.	The above	do not cons	titute all of	the inform	ation requ	ired by Chap	ter 62-160,	F.A.C.	<u></u> 010			

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

SITE NAME:	C-H	151				SI LO	CATION:	L	N1	Hulla	()	oun	ty	
WELL NO:	51	-3		SAM	PLE ID:						DATE:	5	-119	111
		- 10 La X-134 5 - 1			Р	URG	ING DA	TA						,
WELL	(inches):	TUBING	G TER (inches)	:	WELL SC DEPTH:	REEN I fe	NTERVAL et to f	eet	STATIC C	DEPTH ER (feet):		PURGE OR BA	E PUMP TYPE ILER:	L
WELL VOL (only fill out	UME PURGE: if applicable)	1 WELL VOI	LUME = (TO	TAL WELL	DEPTH -	- STA	FIC DEPTH T	ro wa	(TER) X	WELL CAPAC		ns/foot	92	9 m/
EQUIPMEN (only fill out	IT VOLUME PU	JRGE: 1 EQU	JIPMENT VO	L. = PUMP	VOLUME	+ (TUB	ING CAPACI	ΤY	X TI	UBING LENGTH	1) + FLO	W CELL	VOLUME	gaiona
			1		gallons	+(gallo	ons/foo	ot X	fee	t) +		gallons =	gallons
INITIAL PU DEPTH IN	MP OR TUBING	G (DEPTH IN	MP OR TUI	BING t):		PURGIN	IG ED AT:		PURGING ENDED AT	:	P	URGED (gallo	ne ons):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (galions)	PURGE RATE (gpm)	DEPT TO WATE (feet)	H (star R ur	oH ndard hits)	TEMP. (°C)	Circ (circ µmi <u>or</u>	OND. le units) hos/cm μS/cm	DISSOLVED OXYGEN (circle units) mg/L <u>or</u> % saturation	TUR (N	BIDITY TUs)	COLOR (describe)	ODOR (describe)
14246	2250			501	7.	29	20.4	4	21	2.39			Clowly	None
19:52	3100				7.	10	19.2	Se	00	1.89		51	inty lo	by vone
15:02	3800				7	10	19.0	50	00	195			clear h	1. van
15:06	4250										9		Slickty	hn
			_								-		h <u>.</u>	
		1												
			+											
WELL CAP TUBING IN PURGING	PACITY (Gailon: SIDE DIA. CAF	s Per Foot): (PACITY (Gai.//	0.75" = 0.02; Ft.): 1/8" = 0 = Bailer;	1" = 0.0 0.0006; 3 BP = Blade	4; 1.25 ' / 16'' = 0.0 ter Pump;	" = 0.06 014; E	6; 2" = 0.1 1/4" = 0.002 SP = Electric	6; 3 26; Subm	3" = 0.37; 5/16" = 0. ersible Pu	4" = 0.65; .004; 3/8" = mp; PP = F	5" = 1.0 0.006; Peristaltic	2; 6" <u>1/2" =</u> Pump;	= 1.47; 12 0.010; 5/8 O = Other	" = 5.88 " = 0.016 r (Specify)
					S	AMP	LING DA	ATA						
SAMPLED	BY (PRINT) / A	FFILIATION:		SAMPLE	R(S) SIGN	ATURE	E(S):			SAMPLING	AT:		SAMPLING ENDED AT:	
PUMP OR	TUBING WELL (feet):		,		L CODE:				FIELD	-FILTERED:	Y N Voe:		FILTER SIZE	: µm
FIELD DEC	ONTAMINATIO	DN: PUM	IP Y	N	TU	BING	Y N (re	eplace	d)	DUPLICATE		Y	N	
SAMP			TION		SAM	PLE PR	ESERVATIO	N I	1	INTEND	DED	SAM	PLING S	AMPLE PUMP
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESER USE	VATIVE D	T ADDE	OTAL VOL D IN FIELD (I	mL)	FINAL pH	ANALYSIS / METHO	AND/OR OD	EQU	IPMENT ODE (r	FLOW RATE nL per minute)
						_								
REMARKS	:	L1.		l				1_		1		1	L	
MATERIAL	CODES	AG = Amber	Glass; CG	= Clear Gla	ss; PE	= Poly	ethylene;	PP =	Polypropy	lene; S = Silio	cone; 1	= Teflo	n; O = Othe	er (Specify)
SAMPLING	EQUIPMENT	CODES: A	APP = After P RFPP = Reve	eristaltic Pu rse Flow Pe	mp; I ristaltic Pu	B = Bail	er; BP = SM = Straw	Bladd	er Pump; od (Tubing	ESP = Elec Gravity Drain):	tric Subr	nersible f Other (S	Pump; pecify)	
OTES: 1.	The above of	do not cons	titute all of	the inform	nation re	quire	d by Chapt	er 62	-160, F.A	A.C.	-			

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

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pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

Revision Date: February 12, 2009

Contraction of the second

SITE NAME:	has	Forthe	for	+tex (-Hs		E CATION:		Na	Kulla	(0	142	4	
WELL NO:	PZ	-4		SAM	IPLE ID:		06				DATE:	51	1191	//
					P	URG	ING DA	TA				- /		·····
WELL DIAMETER	(inches):	TUBIN	G TER (inches):		WELL SC DEPTH:	REEN I	NTERVAL at to f	feet	STATIC D	EPTH R (feet):		PURGE OR BAI	EPUMP TYI LER:	PE
WELL VOL	UME PURGE:	1 WELL VO	LUME = (TOT	TAL WELL	DEPTH -	- STAT	IC DEPTH 1	ro w	ATER) X	WELL CAPAC	ITY		12	108m/
EQUIDMEN		IRCE: 1 EOI						TY	feet) X		gallon:	s/foot		gallons
(only fill out	if applicable)			=	aallons	+ (one/fo	of X	feet)+	OLLL	nalions =	allons
INITIAL PU	MP OR TUBIN	G	FINAL PUI	MP OR TU	BING		PURGIN	IG		PURGING		Т	OTAL VOLU	JME
DEPTH IN	WELL (feet):		DEPTH IN	WELL (fee	et):		INITIATI	ED AT	: 	ENDED AT: DISSOLVED	T	P	URGED (ga 	illons):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPT TO WATE (feet	H IR (sta) ur	pH Indard nits)	TEMP. (^o C)	(cin μπ <u>or</u>	cOND. cle units) hhos/cm μS/cm	OXYGEN (circle units) mg/L or % saturation	TURB (NT	IDITY Us)	COLOR (describe	ODOR (describe)
15:56	3800			3.9	37.	50	20.5	9	28	1.98	cl	ark	4	None
	3500										ch	36 1	6	
16:00	4000				7.	20	19.4	9	83	129	(10	494	1-1	Hone
16:05	4800			_	7	.19	19.3	9	28	1.46	0	164	dy	
16:05	5500				7	1.20	19,2	9	84	1.SC	. (1	Our	y/n	ite Non
16:09	6250				7	20	19.2	4	84	1.45	511	24+	y (100	1 Acon
[67]														
								-						
		1 m		-										
WELL CAP	ACITY (Gallon SIDE DIA, CAI	s Per Foot): PACITY (Gal./	1 0.75" = 0.02; Ft.): 1/8" = 0	1" = 0.0 .0006; 3	4; 1.25 1/16" = 0.0	" = 0.06 0014;	; 2" = 0.1 1/4" = 0.002	 6; 26;	3" = 0.37; 5/16" = 0.	4" = 0.65; 004; 3/8 " = 0	5" = 1.02 0.006;	2; 6" 1/2" =	i = 1.47;	12" = 5.88 /8" = 0.016
PURGING		ODES: E	= Bailer;	BP = Blad	der Pump;	E	SP = Electric	Subn	nersible Pur	mp; PP = P	eristaltic I	Pump;	O = Oth	ter (Specify)
SAMPLED	BY (PRINT) / A	FFILIATION:		SAMPLE	R(S) SIGN		LING D/		<u>.</u>					
0, 1111 220							~~/			INITIATED A	T:		ENDED AT	ў Г:
PUMP OR	TUBING			TUBING					FIELD-	-FILTERED: Y	N	I .	FILTER SIZ	ΖΕ: μm
		ON: PUN		MATERIA	AL CODE: TU	BING	Y N (r	eplace	ed)		vpe: Y		N	
SAME		R SPECIFIC		-	SAM	PLE PR	ESERVATIO	ON		INTEND	ED	SAM		SAMPLE PUMP
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESER		T	OTAL VOL D IN FIELD ((mL)	FINAL pH	ANALYSIS A METHO	ND/OR	EQUI	PMENT ODE	FLOW RATE (mL per minute)
										ļ				
		arte												
					1			-+		+				
REMARKS		Ll				L				1		l	1	<u></u>
MATERIAL	CODES:	AG = Amber	Glass; CG	= Clear Gla	ass; PE	E = Poly	ethylene;	PP =	Polypropyl	lene; S = Silic	one; T	= Teflor	n; O = O	ther (Specify)
SAMPLING	BEQUIPMENT	CODES:	APP = After Pe RFPP = Rever	eristaltic Pu se Flow Pe	ump; eristaltic Pu	B = Bail ump;	er; BP = SM = Straw	Blade	der Pump; od (Tubing	ESP = Elect Gravity Drain);	ric Subm O = C	ersible f Other (S	^D ump; pecify)	
OTES: 1.	The above	do not cons	titute all of	the infor	mation r	equire	d by Chap	ter 62	2-160, F.A	LC.		2)		

pH: \pm 0.2 units **Temperature**: \pm 0.2 °C **Specific Conductance**: \pm 5% **Dissolved Oxygen**: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) **Turbidity**: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

SITE NAME:	C-H	151				SI	TE CATION:	h	a k	alla	100	int	r	
WELL NO:	PZ-	-5	1	SA	MPLE ID	:	OF	F-			DATE:	,	5/20	2/11
						PURC	SING DA	TA						
	(inches):	TUBIN	G TER (inches):		WELL	SCREEN	INTERVAL et to f	eet TC		EPTH R (feet):		PURGI OR BA	E PUMP TY	(PE
WELL VOL (only fill out	UME PURGE: if applicable)	1 WELL VO	LUME = (TO	TAL WEL	L DEPTH	– STA	TIC DEPTH 1	O WATE	R) X	WELL CAPAC	ITY		106	1 ml
			= (- 000	fe	et -		fe	et) X		gallor	s/foot	=	gallons
CONING CONTRACT	t if applicable)	JRGE: 1 EQ		= PUM =		1E + (IUE	alle		. 10	feet) + FLOV	VUELL		= gallons
		<u> </u>					PURGIN	IG (1	PURGING		T		UME
DEPTH IN	WELL (feet):		DEPTH IN	WELL (f	eet):		INITIATI		1.45	ENDED AT:		P	URGED (g	alions):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (galions)	PURGE RATE (gpm)	DEF Tr WA ⁻ (fe	PTH O FER et)	pH standard units)	темр. ([°] С)	CON (circle ι μmhos <u>or</u> μS	ID. units) s/cm /cm	OXYGEN (circle units) mg/L or % saturation	TURE (N1	BIDITY (Us)	COLOI (describ	R ODOR ve) (describe)
10:54	3000			4	86 6	.79	19.2	74	2	2.97	0	en	Ct. ta	n vone
10:57	3750				1	6.60	19.0	74	1	7.68				
10:59	4000					1.60	18.8	75	5	7 50				
11:00	4300						1010	12		6.20				
								-						
						24 24 20225-0-								
				1		<u></u>			-					
							10							
				-		·								
			-			a several	<u>+</u>			<u> </u>			1	
WELL CAP	ACITY (Gallon	s Per Foot):	0.75" = 0.02;	1" = 0	.04; 1.	25" = 0.0	6; 2" = 0.1	6; 3" =	= 0.37;	4" = 0.65;	5 " = 1.0	2; 6"	= 1.47;	12" = 5.88
TUBING IN	ISIDE DIA. CAR	PACITY (Gal.	(Ft.): 1/8" = 0	.0006;	3/16" =	0.0014;	1/4" = 0.002	26; 5/1	6" = 0.0	04; 3/8" = 0	0.006;	1/2" =	0.010;	5/8" = 0.016
PURGING	EQUIPMENT C	ODES: E	s = Bailer;	BP = Bia	idder Pur		SP = Electric		ible Pun	1p; PP = P	enstaltic	Pump;	0 = 0	iner (Specity)
	BY (PRINT) / A	FEILIATION.		SAMPI	FR(S) SI	GNATUR	LING DI	AIA				1		
SAMPLED				OANI''L	.=(3) 51	GIATOR	E(O).			SAMPLING	.т:		SAMPLIN ENDED A	G \T:
PUMP OR	TUBING					ج.			FIELD-I	FILTERED: Y	N		FILTER S	IZE: μm
				J			Y N (r	eplaced)	1 10 000	DUPLICATE	· · · ·	/	N	
CAM				-		MDIED			- 11 - 11 - 11 - 11 - 11 - 11 - 11 - 1		ED			
SAMPLE		MATERIAL	VOLUME	PRESE					INAL	ANALYSIS A METHO	ND/OR	EQU		FLOW RATE (mL per minute)
	SOUTHINGING				~=-				P11					
												1		
	1									1				
	Ę.									1				
<u> </u>										1		1	·····	
REMARKS	š:	L				1				1				
MATTOLA	00050	10 - 1	Class: 00	- 01	Nees		athula	DD - D -						When (Decellar)
MATERIAL	CODES:	AG = Amber	Glass; CG	= Clear G	nass;	PE = PO	yetnyiene;	PP = PO	ypropyle	ene; 5 = Silic	one; T	= 1 eno	n; U=C	mer (Specity)
SAMPLING	3 EQUIPMENT	CODES:	RFPP = Rever	se Flow	Pump; Peristaltic	B = Ba Pump;	sM = Straw	Method (Pump; (Tubing (ESP = Elect Gravity Drain);	O = 0	other (S	Pump; Specify)	
NOTES: 1.	The above	do not cons	stitute all of	the info	ormation	n require	d by Chap	ter 62-16	60, F.A.	.C.	8			

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

WELL NO: PZ - 6 SAMPLE ID: PURGING DATA WELL DUMETER (inches): TUBING DUMETER (inches): TUBING DUMETER (inches): WELL SCREEN INTERVAL DUMETER (inches): PURGE PUMP TYPE OR BALLER: PURGE PUMP TYPE OR BALLER: WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER (inches): DUMETER (inches): PURGE PUMP TYPE OR BALLER: WELL VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME (infinit if applicable) = gailons + (gailons + (gailons + (gailons/foot X TUBING LENGTH) + FLOW CELL VOLUME (infinit if applicable) = gailons + (gailons/foot X TUBING LENGTH) + FLOW CELL VOLUME (infinit if applicable) = gailons + (gailons/foot X Teet) + gailons = gailons/foot X Teet) + gailons = gailons + (gailons) Gailons + (gailons) Gailons + (gailons) Teeth + gailons = gailons/foot X Teet) + gailons = gailons + (gailons) TUBING LENGTH + FLOW CELL VOLUME PURGED BY (VUME PURGED BY (VUME PURGED (gailor) PURGED BY (FRINT) A TUSHING PURGED Gailor BY (Gailor) TUBING LENGTH + TEMP (C'C) COND GY (Gride units) gailon gailor BY (Gail	gallons gallons E ns): ODOR (describe)
PURGING DATA WELL DUME TER (inches): TUBING DUMETER (inches): TUBING DUMETER (inches): PURGE PUMP TYPE (et l): STATC DEPTH (ret l): PURGE PUMP TYPE OR BAILER: WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER): X WELL CAPACITY Z Z Collipment VoLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING ISONSTOL = gallons/foot =<	gallons gallons Ens): ODOR (describe)
WELL DIAMETER (inches): TUBING DIAMETER (inches): WELL SCREEN INTERVAL DEPTH: STATIC DEPTH feet b PURGE PUMP TYPE OR BAILER: WELL VOLUME PURGE: WELL VOLUME = (TOTAL WELL DEPTH - feet) Total WELL CAPACITY X WELL CAPACITY (only fill out if applicable) 237 EQUIPMENT VOLUME PURGE: 1 equipment volume PURGE: 1 equipment volume PURGE: 1 equipment volume PURGE: 1 equipment volume + (TUBING CAPACITY X WELL VOLUME 237 EQUIPMENT VOLUME PURGE: 1 equipment volume + (TUBING CAPACITY TUBING CAPACITY X TUBING CAPACITY 237 EQUIPMENT VOLUME PURGE: 1 equipment volume + (TUBING CAPACITY Final PUMP OR TUBING DEPTH IN WELL (feet): PURGING PURGING PURGING PURGING PURGED QAI: PURGED QAICS TURBIDITY (orlice units) (ride units) TURBIDITY (rule units) COND OSSOLVED OSSOLVED OSSOLVED OSSOLVED OSSOLVED (ride units) TURBIDITY (rule units) COLOR (ride units) (rule units) TURBIDITY (rule units) COLOR (rule units)	gallons gallons E ns): ODOR (describe)
WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY 2 300 (only fill out if applicable) = (feet_ feet_ real) X gallons/foot = gallons / (gallons/foot X feet) + (gallons + (gallons + (feet) + (feet) + (feet) + (gallons + (feet) + (feet) + (feet) + (gallons + (feet) + (gallons + (feet) + (feet) + (gallons/foot X feet) + (gallons/foot	gallons gallons E ns): ODOR (describe)
EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. refet X gallons/cot = (only fill out if applicable) = gallons + (gallons/foot X TUBING LENGTH) + FLOW COLLUME (FINAL PUMP OR TUBING DEPTH IN WELL (feet): PURGING PURGED (gallons) PURGED (gallons) PURGED (gallons) PURGE PURGE <td>gallons gallons E ns): ODOR (describe)</td>	gallons gallons E ns): ODOR (describe)
EQUIPMENT VOLUME FORCE, TEQUIPMENT VOL. = FORM VOLUME + (Tobins CHANTA A Tobins CHANTA A Tobins CHANTA A (only fill out if applicable) = gallons + (gallons/fox X feet) + gallons = INITIAL PUMP OR TUBING DEPTH IN WELL (feet) FINAL PUMP OR TUBING DEPTH IN WELL (feet) PURGING DEPTH IN WELL (feet) PURGED DEPTH IN WELL (feet) PURGED (gallons) TOTAL VOLUME PURGED (gallons) PURGE (feet) PURGE (feet) PURGE (field units) TURBIDITY (ford units) TURBIDITY (ford units) TURBIDITY (ford units) COND. (Gride units) TURBIDITY (NTUS) COLOR (describe) 1/1/0 CUMUL. (gallons) PURGED (gallons) PURGE (gallons) TURBIDITY (feet) COND. (Gride units) TURBIDITY (NTUS) COLOR (describe) 1/1/0 C/1/0 T/1/0 22.5 S & 0 6.8 C C/1/0 1/1/1 C/1/2 TURBIDITY (feet) T/1/0 22.5 S & 0 6.8 C C C 1/1/1 T/2/2 Z/1/2 S & 0 6.8 C C C C C C C C C C	gallons E ns): ODOR (describe)
INITIAL PUMP OR TUBING DEPTH IN WELL (feet): FINAL PUMP OR TUBING DEPTH IN WELL (feet): PURGING INITIATED AT: PURGING ENDED AT: TOTAL VOLUM PURGED (gallon WURGED (gallons) TIME VOLUME PURGED (gallons) CUMUL. VOLUME PURGE (gallons) PURGE PURGE (gallons) DEPTH PURGE (gallons) DEPTH PURGE (gallons) PURGE PURGE (gallons) DEPTH PURGE (gallons) PURGE (feet) PURGE (feet) PURGE (feet) PURGE (feet) TURP (ficial units) TURBIDITY (ntrus) COLOR (describe) 1/1/07 1/1/1 22.5 S&0 6.8 7 CIan 1/1/15 7.29 21.2 5.79 6.9 73 1 1/1/15 7.29 21.3 5.8 6.78 1 1 1/1/15 7.29 21.3 5.8 6.78 1 1 1/1/15 1/1000 7.29 21.3 5.8 6.78 1 1 1/1/15 1/1000 1/12***********************************	DDOR (describe)
IMITAL Polini Politics DEPTH IN WELL (feet): DEPTH IN WELL (feet): INITIATED AT: ENDED AT: PURCED (gallor) TIME VOLUME PURCED CUMUL. VOLUME (gallons) PURCE (gallons) PURCE PURCE (gallons) DEPTH IN WELL (feet): INITIATED AT: ENDED AT: PURCED (gallor) 1/1/074 VOLUME (gallons) PURCE (gallons) PURCE (gallons) DEPTH IN WELL (feet): INITIATED AT: ENDED AT: PURCED (gallor) 1/1/074 VOLUME (gallons) PURCE (gallons) DEPTH IN WELL (feet): INITIATED AT: ENDED AT: PURCED (gallor) 1/1/074 VOLUME (gallons) PURCED (gallor) DEPTH IN WELL (feet): INITIATED AT: ENDED AT: PURCED (gallor) 1/1/074 VOLUME (gallons) PURCED (gallor) PURCED (gallor) TURBIDITY (Georgan) COLOR (Georgan) TURBIDITY (NTUS) COLOR (gallor) 1/1/1/1/100 VOLUME (gallons) PURCED (gallor) PURCED (gallor) TURBIDITY (TURBING INATURE (Gallor) TURBIDITY (NTUS) COLOR (Georgan) 1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/1/	DDOR (describe)
TIME VOLUME PURGED (gallons) CUMUL VOLUME PURGED (gallons) PURGE PURGED (gallons) PURGE (feet) DEPTH TO WATER (feet) PH (standard units) TEMP. (°C) COND. (circle units) mmg/L or % saturation TURBIDITY (NTUs) COLOR (describe) 1/1/07	ODOR (describe)
IV/07 IV/21 IV/21 IV/21 IV/16 759-1 IV/21 IV/2 IV/20 IV/21 IV/20 IV/20 IV/20 IV/20 IV/20 IV/21 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 IV/20 WELL CAPACITY (Galions Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" IV/20 <	none
14:16 7.9 22.5 580 6.87 C/m 14:20 1400 7.29 21.2 579 6.93 1 2:16 7.29 21.3 580 6.93 1 1 14:30 1729 21.3 580 6.93 1 1 14:30 1820 6.86 6.86 1	none
14: 24. 1400n 7.29 21.2 5.79 6.93 2.1600n/ 72.9 21.3 5.80 6-93 141.3 1820 6.86 6.86 141.3 1820 6.86 6.86 141.3 1820 6.86 6.86 141.3 1820 6.86 6.86 141.3 1820 6.86 6.86 141.3 1820 6.86 6.86 141.4 1820 6.86 6.86 141.4 1820 6.86 6.86 141.4 1820 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" 170BING INSIDE DIA. CAPACITY (Gal./FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" PURGING EQUIPMENT CODES: B = Bailer, BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristatic Pump; 0 = Other (SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING SAMPLING	
> 16x2x/l 729 21.3 5.8 0 6-93 19/137-1820 6.86	
IMI 33 IS20 6.86 Image: Second state st	
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; P = Peristaltic Pump; O = Other (SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING SAMPLING	
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" TUBING INSIDE DIA. CAPACITY (Gall./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (SAMPLED BY (PRINT) / AFFILIATION: SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING SAMPLING	
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WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" TUBING INSIDE DIA. CAPACITY (Gal./Ft): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0226; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING SAMPLING	
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0226; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING SAMPLING	
WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/2" PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING SAMPLING SAMPLING	
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SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING SAMPLING	= 5.88 = 0.016 (Specify)
SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING	
PUMP OR TUBING TUBING FIELD-FILTERED: Y N FILTER SIZE:	цm
DEPTH IN WELL (feet): MATERIAL CODE: Filtration Equipment Type:	
FIELD DECONTAMINATION: PUMP Y N TUBING Y N (replaced) DUPLICATE: Y N	
SAMPLE CONTAINER SPECIFICATION SAMPLE PRESERVATION INTENDED SAMPLING SAMPLI	MPLE PUMP
SAMPLE # MATERIAL VOLUME PRESERVATIVE TOTAL VOL FINAL ANALYSIS AND/OR EQUIPMENT FI ID CODE CONTAINERS CODE VOLUME PRESERVATIVE TOTAL VOL FINAL METHOD EQUIPMENT FI	LOW RATE L per minute)
REMARKS:	
MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other	
SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump;	(Specify)
RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)	(Specify)

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

Revision Date: February 12, 2009

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SITE NAME:	6-1	451		L	SI LC	TE CATION:	Wa	Kulla	600	ink/	
WELL NO:	82-	-7		SAMPLE	ID:	00	1		DATE:	5/20	111
					PURC	SING DA	TA				· · · ·
WELL	(inches):) FER (inches):	WE	LL SCREEN PTH: fe	INTERVAL et to f	STAT eet TO W	IC DEPTH ATER (feet):	PI	JRGE PUMP T R BAILER:	YPE
WELL VOL (only fill out	UME PURGE: if applicable)	1 WELL VOL	UME = (TOT	AL WELL DEP	PTH - STA	TIC DEPTH 1	O WATER)	X WELL CAPA		10	11/m1
EQUIPMEN (only fill out	IT VOLUME PU	IRGE: 1 EQU	IPMENT VOL	. = PUMP VOL	UME + (TUE	BING CAPACI	TY X	TUBING LENGTI	1) + FLOW (ELL VOLUME	gaions
			T	= ga	allons + (🦼	gallo	ons/foot X	fee	t) +	gallons	≠ gallons
INITIAL PU DEPTH IN	MP OR TUBING WELL (feet):	3	FINAL PUN DEPTH IN	MP OR TUBING WELL (feet):	3	PURGIN	G ED AT:	PURGING ENDED AT	:	PURGED (LUME gallons):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	темр. (°С)	COND. (circle unit µmhos/cn <u>or</u> µS/cm	s) DISSOLVED OXYGEN (circle units) mg/L or % saturation	TURBID (NTUs	ITY COLO s) (descril	R ODOR be) (describe)
15:16	1800				6.60	21.1	1001	3.30	2		
is: ZI	2150				6.51	20.0	999	2.14			
15:23	2660				6.51	19.7	999	1.24	2		
13:20	2900				6,50	19.6	999	104			
15:21	\$3200							ing Star be			
15:20						1000-031		34 B.C.			
						3					
						-					
	-			0							
									-		
WELL CAP TUBING IN	ACITY (Gallons SIDE DIA. CAP	Per Foot): 0 ACITY (Gal./F	.75" = 0.02; t.): 1/8" = 0.0	1" = 0.04; 0006; 3/16"	1.25 " = 0.00 ' = 0.0014;	6; 2" = 0.1 1/4" = 0.002	6; 3" = 0. 6; 5/16"	37; 4" = 0.65; = 0.004; 3/8" =	5" = 1.02; 0.006; 1/	6" = 1.47; 2" = 0.010;	12 " = 5.88 5/8 " = 0.016
PURGING I	EQUIPMENT C	ODES: B	= Bailer; I	BP = Bladder F	Pump; E	SP = Electric	Submersible	Pump; PP = I	Peristaltic Pu	mp; O = C	ther (Specify)
SAMPLED	BY (PRINT) / A	FFILIATION:	r	SAMPLER(S)	SIGNATURE						
		et and						INITIATED	AT:	ENDED /	NT:
PUMP OR	TUBING WELL (feet):			TUBING MATERIAL C	ODE:		Fil	ELD-FILTERED: Y	/ N ype:	FILTER S	IZE:μm
FIELD DEC	ONTAMINATIC	N: PUM	P Y N		TUBING	Y N (re	eplaced)	DUPLICATE	: Y	N	
SAMP	LE CONTAINE	R SPECIFICA	TION		SAMPLE PF	RESERVATIO	N	INTEN	DED	SAMPLING	SAMPLE PUMP
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVAT USED	IVE ADDE	TOTAL VOL D IN FIELD (mL) FINA	AL ANALYSIS	AND/OR OD	EQUIPMENT CODE	FLOW RATE (mL per minute)
						2					
REMARKS:											
MATERIAL	CODES:	AG = Amber (Glass; CG =	Clear Glass;	PE = Poly	ethylene;	PP = Polypr	opylene; S = Sili	cone; T = "	Teflon; O = 0	Other (Specify)
SAMPLING	EQUIPMENT	CODES: A	PP = After Pe FPP = Revers	ristaltic Pump; e Flow Perista	B = Bai Itic Pump;	ler; BP = SM = Straw	Bladder Pun Method (Tut	np; ESP = Electronic ESP = Electronic ESP = Electronic Espective (Contracting Strain);	tric Submers O = Oth	ible Pump; er (Specify)	
NOTES: 1.	The above of		titute all of t			d by Chapt	er 62-160,	F.A.C.	2 SECTION	3)	100

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

SITE NAME:	C-	HSI			5 L		Wat	Tulla	600	int	y	
WELL NO:	PZ	-9		SAMP	LE ID:	12			DATE:	5/1	19/11	1
					PUR	GING DA	TA					to a defauto
WELL	(inches):		G TER (inches):	N D	ELL SCREEN	N INTERVAL	STATIC I	DEPTH ER (feet):		PURGE	PUMP TYPE ER:	[
WELL VOL	UME PURGE: if applicable)	1 WELL VO	LUME = (TOT	AL WELL DI	EPTH – ST	ATIC DEPTH	TO WATER) X	WELL CAPAC	ITY		152	Zml
		1005. 4 501			feet -		feet) X		gallon	s/foot =		gallons
(only fill out	if applicable)	JRGE: 1 EQU		= PUMP V			nns/footX	feet) + FLOW	V CELL V		gallons
		G	FINAL PUN		NG	PURGI	G 17.70	PURGING		тс	TAL VOLUN	AE
DEPTH IN	WELL (feet):		DEPTH IN	WELL (feet)	1	INITIAT	ED AT: 17-36	ENDED AT:	1	PU	JRGED (gallo	ins):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	I TEMP. (°C)	COND. (circle units) μmhos/cm <u>or</u> μS/cm	OXYGEN (circle units) mg/L <u>or</u> % saturation	TURE (NT	BIDITY Us)	COLOR (describe)	ODOR (describe)
17:50	5002			47:	7.19	20.0	667	0.50		C	buly	
17:52	6300				71	19.3	669	0.58		Sin	ht clo	My
17:5Y	7400				21	19.1	666	0.55		1		
17:57	8300				7.1	19.1	665	0.56				
17:88	8607											<u>+</u>
and the second s		. 1	-									
			. ⁸									
WELL CAP	ACITY (Gallon SIDE DIA. CAR	s Per Foot): ACITY (Gal./	0.75" = 0.02; /Ft.): 1/8" = 0.0	1" = 0.04; 0006; 3/1	1.25 " = 0. 6" = 0.0014;	.06; 2" = 0.1 1/4" = 0.00	16; 3" = 0.37; 26; 5/16" = 0	4" = 0.65; .004; 3/8" = (5" = 1.02 0.006;	2; 6" = 1/2" = 0	= 1.47; 12 ' .010; 5/8 '	³ = 5.88 " = 0.016
PURGING		ODES: E	8 = Bailer; I	BP = Bladde	r Pump;	ESP = Electric	Submersible Pu	mp; PP = P	eristaltic	Pump;	O = Other	(Specify)
					SAM	PLING D	ATA					
SAMPLED	BY (PRINT) / A	FFILIATION:		SAMPLER(S) SIGNATU	RE(S):		SAMPLING INITIATED A	. T :	5	SAMPLING ENDED AT:	
PUMP OR DEPTH IN	TUBING WELL (feet):			TUBING MATERIAL	CODE:	1 2 3 3	FIELD Filtrati	-FILTERED: Y on Equipment Ty	/ N ype:	F	ILTER SIZE	μm
FIELD DEC	ONTAMINATIO	DN: PUN	AP Y N		TUBING	Y N (r	eplaced)	DUPLICATE	: Y		N	
SAMF	LE CONTAINE	R SPECIFIC	ATION		SAMPLE F	RESERVATIO	N	INTEND	ED	SAMF	LING S	AMPLE PUMP
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERV		TOTAL VOL	(mL) FINAL	ANALYSIS A METHO	ND/OR	EQUIP	PMENT DE (n	FLOW RATE
				· · · · · · · · · · · · · · · · · · ·								
REMARKS	;	ı,I			I			_L			I	
MATERIAL	CODES:	AG = Amber	Glass; CG =	Clear Glass	s; PE = Po	olyethylene;	PP = Polypropy	tene; S = Silic	one; T	= Teflon;	O = Othe	ar (Specify)
SAMPLING	EQUIPMENT	CODES:	APP = After Pe RFPP = Revers	ristaltic Pum e Flow Peris	p; B = B staltic Pump:	ailer; BP = SM = Straw	Bladder Pump; Method (Tubing	ESP = Elect	ric Submo	ersible Pu	ump; ecify)	
NOTES: 1.	The above	do not cons	stitute all of t	he inform	ation requi	red by Chap	ter 62-160, F./	LC.				

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

MANE:	C	-172				LO	CATION:	U	~9	HU11	9 (OU	nry	
VELL NO:	85	-10		SAM	PLE ID:		13				DATE	5	119	11/
					P	URG	ING DA	TA						
VELL		TUBIN	IG ·		WELL SCP	REENI	NTERVAL	S		EPTH		PURG		(PE
ELL VOL	(inches): UME PURGE:	1 WELL VC	TER (inches)	: TAL WELL	DEPTH: DEPTH -	fee STAT	TIC DEPTH T	eet T	OWATE	R (feet): WELL CAP	ACITY		ILER:	98 4
nly fill out i	if applicable)		= (feet -			f	eet) X		aall	ons/foot	-	aallons
QUIPMEN only fill out	if applicable)	URGE: 1 EQ	UIPMENT VO	L. = PUMP	VOLUME +	+ (TUBI	NG CAPACI	TY	X TI	JBING LENG	TH) + FLO	OW CELL	VOLUME	
				=	galions -	+(gallo	ns/foot	<u>x</u>	<u>1</u>	eet) +		gallons	= gallons
IITIAL PUN EPTH IN V	MP OR TUBIN WELL (feet):	G	FINAL PU DEPTH IN	MP OR TU	BING t):		PURGIN	G D AT:		PURGIN ENDED	G AT:	T F	OTAL VOL	UME jallons):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPT TO WATE (feet)	H p R (stan) uni	H Idard its)	TEMP. ([°] C)	CO (circle) μmhc <u>or</u> μ	ND. units) os/cm S/cm	DISSOLVE OXYGEN (circle unit mg/L <u>or</u> % saturatio	ED N TUI (I S) (I	RBIDITY NTUs)	COLO (descrit	R ODOR (describe)
11:30	2750			44	37	10	20.0	66	8	0.81			Cle	1 san
6:33	3600				7	10	19.5	17	12	0.56				
2.22	4000	1			7	10	19.4	63	74	D.S.	2		1	
6:3	54300				7	.TO	19.5	63	24	0.51	8		CH	car
6:37	4700													
16:31	5600													
V								-						
							1. 12 H 4. 14							
						5								
								-						
/ELL CAP/ UBING INS URGING E	ACITY (Gallon SIDE DIA. CAI	s Per Foot): PACITY (Gal. :ODES: I	0.75" = 0.02; /Ft.): 1/8" = (B = Bailer;	1" = 0.0 0.0006; 3 BP = Blade	4; 1.25" /16" = 0.00 der Pump;	= 0.06 014; E\$; 2" = 0.1 1/4" = 0.002 SP = Electric	6; 3" 6; 5 Submer	' = 0.37; / 16'' = 0.	4" = 0.65; 004; 3/8" np; PP	5" = 1 = 0.006; = Peristalt	.02; 6" 1/2" = ic Pump;	= 1.47; 0.010; 0 ≈ 0	12" = 5.88 5/8" = 0.016 ther (Specify)
/ELL CAP/ UBING INS URGING E	ACITY (Gailon SIDE DIA. CAI EQUIPMENT C	s Per Foot): PACITY (Gal. :ODES: I	0.75" = 0.02; /Ft.): 1/8" = (B = Bailer,	1" = 0.0 0.0006; 3 BP = Bladd	4; 1.25" /16" = 0.00 der Pump; SA	= 0.06 014; ES	2" = 0.1 1/4" = 0.002 SP = Electric LING DA	6; 3" 6; 5 Submer	' = 0.37; / 16'' = 0. rsible Put	4" = 0.65; 004; 3/8" mp; PP	5" = 1 '= 0.006; = Peristalt	.02; 6" 1/2" = ic Pump;	= 1.47; 0.010; O = O	12" = 5.88 5/8" = 0.016 ther (Specify)
/ELL CAP/ UBING INS URGING E AMPLED E	ACITY (Gallon SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A	s Per Foot): PACITY (Gal. :ODES: I	0.75" = 0.02; /FL): 1/8" = (3 = Bailer,	1" = 0.0 0.0006; 3 BP = Bladd	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/	= 0.06 014; ES MPI	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA (S):	6; 3" 6; 5, Submer	² = 0.37; / 16'' = 0. rsible Put	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE	5" = 1 = 0.006; = Peristalt IG D AT:	.02; 6" 1/2" = ic Pump;	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A	12" = 5.88 5/8" = 0.016 ther (Specify) G T:
VELL CAP UBING INS URGING E AMPLED E UMP OR T EPTH IN V	ACITY (Gallon SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A FUBING WELL (feet):	s Per Foot): PACITY (Gal. :ODES: I	0.75" = 0.02; /Ft.): 1/8" = (B = Bailer;	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/	= 0.06 014; ES MPI ATURE	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA (S):	6; 3" 6; 5 Submer	' = 0.37; /16" = 0. rsible Pur FIELD Filtratio	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE FILTERED: on Equipmen	5" = 1 = 0.006; = Peristalt IG D AT: Y N t Type:	.02; 6" 1/2" = ic Pump;	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S	12" = 5.88 5/8" = 0.016 ther (Specify) G .T: IZE:μm
VELL CAP, UBING INS URGING E AMPLED E UMP OR T EPTH IN V IELD DEC	ACITY (Gailon SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A FUBING WELL (feet): ONTAMINATIO	s Per Foot): PACITY (Gal. IODES: I IFFILIATION: DN: PUI	0.75" = 0.02; /Ft): 1/8" = (3 = Bailer, MP Y	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ AL CODE: TUE	= 0.06 014; ES MPI ATURE	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA (S): Y N (rd	6; 3" 6; 5 Submer	' = 0.37; /16" = 0. rsible Put FiltELD Filtratio	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE FILTERED: on Equipmen DUPLICA	5" = 1 = 0.006; = Peristalt IG D AT: Y N t Type: 	.02; 6" 1/2" = ic Pump; Y	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S N	12" = 5.88 5/8" = 0.016 ther (Specify) G .T: IZE:μm
/ELL CAP, UBING INS URGING E AMPLED E UMP OR T EPTH IN V IELD DECO SAMP	ACITY (Galion SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A FUBING WELL (feet): ONTAMINATIO	s Per Foot); PACITY (Gal. :ODES: I FFILIATION: DN: PUI ER SPECIFIC	0.75" = 0.02; /Ft.): 1/8" = (3 = Bailer; MP Y ATION	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ AL CODE: TUE SAMF	= 0.06 014; ES MPI ATURE	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA (S): Y N (re ESERVATIO	6; 3" 6; 5 Submer ATA eplaced) N	' = 0.37; /16'' = 0. rsible Pur FIELD Filtratio	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE FILTERED: on Equipmen DUPLICA	6" = 1 = 0.006; = Peristalt G D AT: Y N t Type: .TE: NDED	.02; 6" 1/2" = ic Pump; Y SAM	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S N MPLING	12" = 5.88 5/8" = 0.016 ther (Specify) G IZE:μm
ELL CAP, UBING INS URGING E AMPLED E UMP OR T EPTH IN V ELD DEC(SAMPLE CODE	ACITY (Galion SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A FUBING WELL (feet): ONTAMINATION LE CONTAINE # CONTAINERS	s Per Foot); PACITY (Gal. :ODES: I FFILIATION: DN: PUI ER SPECIFIC MATERIAL CODE	0.75" = 0.02; /Ft.): 1/8" = (3 = Bailer; MP Y ATION VOLUME	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N PRESER USE	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ AL CODE: TUE SAMF VATIVE ED	= 0.06 014; ES MPI ATURE UING DLE PR T ADDEI	; 2" = 0,1 1/4" = 0.002 SP = Electric LING DA (S): Y N (re ESERVATIO OTAL VOL D IN FIELD (6; 3" 6; 5 Submer TA aplaced) N mL)	r = 0.37; /16" = 0. rsible Pua FIELD Filtratio	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE FILTERED: on Equipmen DUPLICA INTE ANALYSI MET	5" = 1 = 0.006; = Peristalt G D AT: Y N t Type: TE: NDED S AND/OF THOD	.02; 6" 1/2" = ic Pump; Y Y R EQU C	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S N MPLING IPMENT ODE	12" = 5.88 5/8" = 0.016 ther (Specify) G T: IZE:μm IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
TELL CAP, UBING INS URGING E AMPLED E UMP OR T EPTH IN V IELD DEC(SAMPLE CODE	ACITY (Gallon SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): ONTAMINATIO LE CONTAINE # CONTAINERS	s Per Foot): PACITY (Gal. :ODES: I FFILIATION: DN: PUI ER SPECIFIC MATERIAL CODE	0.75" = 0.02; /Ft): 1/8" = (3 = Bailer; MP Y ATION VOLUME	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N PRESER USE	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ NL CODE: TUE SAMF VATIVE ED	= 0.06 014; ES AMPI ATURE NING LE PR T ADDE	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA (S): Y N (ref ESERVATIO OTAL VOL D IN FIELD (6; 3" 6; 5 Submer \TA pplaced) N mL)	r = 0.37; /16" = 0. rsible Put FIELD Filtratio	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE FILTERED: on Equipmen DUPLICA INTE ANALYSI MET	6" = 1 = 0.006; = Peristalt G D AT: Y N t Type: TE: NDED S AND/OF FHOD	.02; 6" 1/2" = ic Pump; Y Y R SAM EQU C	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S N APLING IPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) G .T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
IELL CAP, UBING INS URGING E AMPLED E UMP OR T EPTH IN V IELD DEC(SAMP AMPLE CODE	ACITY (Gailon SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): ONTAMINATIC LE CONTAINE # CONTAINERS	s Per Foot): PACITY (Gal. :ODES: I SFILIATION: DN: PUI ER SPECIFIC MATERIAL CODE	0.75" = 0.02; /Ft.): 1/8" = (3 = Bailer; MP Y ATION VOLUME	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N PRESER USE	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ AL CODE: TUE SAMF VATIVE ED	= 0.06 014; ES MPI ATURE VING VLE PR T ADDEI	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA (S): Y N (re ESERVATIO OTAL VOL D IN FIELD (6; 3" 6; 5/ Submer ATA aplaced) N mL)	r = 0.37; /16" = 0. rsible Pur Filtratic Filtratic PH	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE: FILTERED: on Equipmen DUPLICA INTE ANALYSI MET	5" = 1 = 0.006; = Peristalt G D AT: Y N t Type: 	.02; 6" 1/2" = ic Pump; Y X EQU C	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S N MPLING IPMENT ODE	12" = 5.88 5/8" = 0.016 ther (Specify) G .T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
VELL CAP, UBING INS URGING E AMPLED E DEPTH IN V IELD DECO SAMPLE D CODE	ACITY (Gailon SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A FUBING WELL (feet): ONTAMINATION LE CONTAINERS	s Per Foot): PACITY (Gal. :ODES: I FFILIATION: DN: PUI ER SPECIFIC MATERIAL CODE	0.75" = 0.02; /Ft.): 1/8" = (3 = Bailer; MP Y ATION VOLUME	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N PRESER USE	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ AL CODE: TUE SAMF VATIVE ED	= 0.06 114; ES MMPI ATURE	; 2" = 0,1 1/4" = 0.002 SP = Electric LING DA (S): Y N (re ESERVATIO OTAL VOL D IN FIELD (6; 3" 6; 5 Submer TA eplaced) N mL)	r = 0.37; /16" = 0. rsible Pua FIELD Filtratio FINAL pH	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE FILTERED: on Equipmen DUPLICA INTE ANALYSI MET	5" = 1 = 0.006; = Peristalt G D AT: Y N t Type: TE: NDED S AND/OF FHOD	.02; 6" 1/2" = ic Pump; Y Y R SAN EQU C	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S N MPLING IPMENT ODE	12" = 5.88 5/8" = 0.016 ther (Specify) G T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
VELL CAP, UBING INS URGING E AMPLED E UMP OR T EPTH IN V IELD DECC SAMPLE D CODE	ACITY (Galion SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): ONTAMINATIC LE CONTAINERS	s Per Foot): PACITY (Gal. :ODES: I SFILIATION: DN: PUI ER SPECIFIC MATERIAL CODE	0.75" = 0.02; /Ft.): 1/8" = (B = Bailer; MP Y ATION VOLUME	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N PRESER USE	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ AL CODE: TUE SAMF VATIVE D	= 0.06 014; ES NMPI ATURE	; 2" = 0.1 1/4" = 0.002 3P = Electric LING DA (S): Y N (re ESERVATIO OTAL VOL D IN FIELD (6; 3" 6; 5 Submer TA aplaced) N mL)	FIELD FIELD Filtratic	4" = 0.65; 004; 3/8" mp: PP SAMPLIN INITIATE: SAMPLIN INITIATE: DUPLICA INTE ANALYSI MET	5" = 1 = 0.006; = Peristalt IG D AT: Y N t Type: TE: NDED S AND/OF FHOD	.02; 6" 1/2" = ic Pump; Y Y SAM EQU C	samplin samplin ended A filter s n Apling ipment ode	12" = 5.88 5/8" = 0.016 ther (Specify) G T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
VELL CAP, UBING INS URGING E AMPLED E UMP OR T DEPTH IN V IELD DEC(SAMPLE D CODE	ACITY (Gailon SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): ONTAMINATIC LE CONTAINE # CONTAINERS	s Per Foot): PACITY (Gal. :ODES: I IFFILIATION: DN: PUI ER SPECIFIC MATERIAL CODE	0.75" = 0.02; /Ft.): 1/8" = (3 = Bailer; MP Y ATION VOLUME	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N PRESER USE	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ ML CODE: TUE SAMF VATIVE ED	= 0.06)14; ES MPPI ATURE	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA (S): Y N (re ESERVATIO OTAL VOL D IN FIELD (6; 3" 6; 5/ Submer ATA aplaced) N mL)	FIELD FIELD FINAL PH	4" = 0.65; 004; 3/8" mp; PP SAMPLIN INITIATE FILTERED: on Equipmen DUPLICA INTE ANALYSI MET	5" = 1 = 0.006; = Peristalt G D AT: Y N t Type: TE: NDED S AND/OF HOD	.02; 6" 1/2" = ic Pump; Y X EQU C C	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S N APLING IPMENT ODE	12" = 5.88 5/8" = 0.016 ther (Specify) G .T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
VELL CAP, UBING INS URGING E AMPLED E UMP OR T EPTH IN V IELD DEC SAMPI AMPLE CODE	ACITY (Galion SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): ONTAMINATION LE CONTAINERS	s Per Foot): PACITY (Gal. :ODES: I SFILIATION: DN: PUI ER SPECIFIC MATERIAL CODE	0.75" = 0.02; //Ft.): 1/8" = (B = Bailer; MP Y ATION VOLUME	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N PRESER USE	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ AL CODE: TUE SAMF VATIVE D	= 0.06 014; ES MPPI ATURE	; 2" = 0.1 1/4" = 0.002 3P = Electric LING DA (S): Y N (re ESERVATIO OTAL VOL D IN FIELD (6; 3" 6; 5 Submer TA aplaced) N mL)	FIELD FIELD Filtratic	4" = 0.65; 004; 3/8" mp: PP SAMPLIN INITIATE: SAMPLIN INITIATE: DUPLICA INTE ANALYSI MET	5" = 1 = 0.006; = Peristalt IG D AT: Y N t Type: NDED S AND/OF THOD	.02; 6" 1/2" = ic Pump; Y X SAM EQU C	sampling Filters N Pling IPMENT ODE	12" = 5.88 5/8" = 0.016 ther (Specify) G T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)
AMPLED E	ACITY (Galion SIDE DIA. CAI EQUIPMENT C BY (PRINT) / A TUBING WELL (feet): ONTAMINATIC LE CONTAINERS	s Per Foot): PACITY (Gal. :ODES: I FFILIATION: DN: PUI R SPECIFIC MATERIAL CODE AG = Amber	0.75" = 0.02; //Ft.): 1/8" = (3 = Bailer; MP Y ATION VOLUME VOLUME	1" = 0.0 0.0006; 3 BP = Bladd SAMPLEI TUBING MATERIA N PRESER USE = Clear Gla	4; 1.25" /16" = 0.00 der Pump; SA R(S) SIGN/ AL CODE: TUE SAMF VATIVE ED	= 0.06 114; ES MPI ATURE ING 'LE PR T ADDEI = Polyi	; 2" = 0.1 1/4" = 0.002 3P = Electric LING DA (S): Y N (rd ESERVATIO OTAL VOL D IN FIELD (D IN FIELD (6; 3" 6; 5 Submer TA eplaced) N mL) PP = P	rsible Pur FIELD Filtratio	4" = 0.65 004; 3/8" mp: PP SAMPLIN INITIATE FILTERED: on Equipmen DUPLICA INTE ANALYSI MET	5" = 1 = 0.006; = Peristalt IG D AT: Y N t Type: TE: NDED S AND/OF (HOD	.02; 6" 1/2" = ic Pump; Y SAM EQU C	= 1.47; 0.010; 0 = 0 SAMPLIN ENDED A FILTER S N APLING IPMENT CODE	12" = 5.88 5/8" = 0.016 ther (Specify) G T: IZE:μm SAMPLE PUMP FLOW RATE (mL per minute)

2. <u>STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)</u> pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

SITE NAME:	C	-HS	1			SIT	E CATION:	6	Va 1	Fuller	,	(0	un	ty	
WELL NO:	PZ-	-11		SAM	PLE ID:		14				I	DATE:	5	120	111
			5.1040-		P	JRG	ING DA	TA					,		
	(inches);		G TFR (inches) [,]		WELL SCR	REEN I	NTERVAL	eet		DEPTH ER (feet):				E PUMP T	/PE
WELL VOL	UME PURGE:	1 WELL VO	LUME = (TOTA	L WELL	DEPTH -	STAT	IC DEPTH T	O WAT	TER) X	WELL CA	PACI	ry I		20.	56 m/
		DOF. 4 501	= (- 0000	feet -	(TUD)		TV	feet) X			gallo	ns/foot	=	galions
(only fill out	if applicable)	JRGE: 1 EQU	JPMENT VOL.	= PUMP		. (ТОВІ		l T		UBING LEN	feet)	+ FLOV	VCELL		= gallons
						<u> </u>		16		PURG	ING	T			
DEPTH IN V	WELL (feet):		DEPTH IN V	VELL (fee	t):		INITIATE	ED AT:		ENDE	DAT:		P	URGED (g	allons):
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gailons)	PURGE RATE (gpm)	DEPT TO WATE (feet)	H pi R (stan uni	H dard ts)	темр. ([°] С)	CC circle) ب mh <u>or</u>	DND. e units) ios/cm μS/cm	OXYGI (circle ui mg/L % satura	EN nits) or ntion	TURI (N	BIDITY TUs)	COLO (describ	R ODOR ve) (describe)
11:29	8500			5.7	3 6.7	21	19.3	9	10	0.5	S	Cla	why	A to	n
11:31	9600				6.6	8	18,9	9	13	0.	17	,	1	11	None
11:34	10,60			ļ	6.6	9	11.0	9	179	0.5	2			ļ	- 1
11 36	10600				6.	69	18.8	_ 2	13	0.	15		Star Sector		
11:38	12,300										9		10	L	
				E.											
3	B. 3.													1	
Č.	5		-	- 100	·	-									
WELL CAP	ACITY (Gallon	s Per Foot):	0.75" = 0.02;	1" = 0.0	4; 1.25"	= 0.06	; 2" = 0.1	6; 3	" = 0.37;	4" = 0.6	5; 6	° = 1.0	2; 6"	= 1.47;	12" = 5.88
PURGING IN	SIDE DIA. CAP	ODES: B	= Bailer B	P = Blade	/16 = 0.00	F:	1/4 = 0.002 SP = Electric	Subme	ersible Pu	.004; 3/	0 = 0. P = Pe	nstaltic	Pumo:	O = O	5/6 = 0.016
1 onono i		0020. 2			SA	MP	LING DA	ATA					i ang		
SAMPLED	BY (PRINT) / A	FFILIATION:		SAMPLE	R(S) SIGN/	TURE	(S):			SAMPL	ING		T	SAMPLIN	G
and and a second										INITIAT	ED AT	:		ENDED A	Ť:
PUMP OR T				TUBING					FIELD	-FILTERED): Y	N		FILTER S	IZE:μm
			AP Y N			ING	Y N (re	enlaced	l Fildad			18.	/	N	
					S AMD			-	•/		CNDE	<u> </u>			
SAMPLE	#	MATERIAL	VOLUME	PRESER	VATIVE	T	OTAL VOL		FINAL	ANALY	SIS AN	D/OR	EQUI	PMENT	FLOW RATE
ID CODE	CONTAINERS	CODE	VOLUME	USE	D	ADDE	D IN FIELD (mL)	рН		ETHOL	,		ODE	(mr per minute)
													-		
										·		<u> </u>			
							1940. 1964			-					
												···· ·			
										-					
	_									1					
REMARKS:															
MATERIAL	CODES:	AG = Amber	Glass; CG =	Clear Gla	ss; PE	= Poly	ethylene;	PP = F	Polypropy	lene; S =	Silico	ne; T	= Tefior	n; O=C	other (Specify)
SAMPLING	EQUIPMENT	CODES:	APP = After Per	istaltic Pu	mp; B	= Bail	er; BP = SM = Strew	Bladde	er Pump; d (Tubing	ESP =	Electri	c Subm	nersible F	oump;	
NOTES: 1.	The above of	do not cons	titute all of t	he infor	nation re	quire	d by Chapt	er 62-	160, F.A	A.C.		- 101 ·			

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pH: \pm 0.2 units **Temperature**: \pm 0.2 °C **Specific Conductance**: \pm 5% **Dissolved Oxyge**n: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) **Turbidity**: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

Revision Date: February 12, 2009

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SITE NAME:	(-	HSI				SI LO			W	n Kulla	6	ou	nty		
WELL NO:	RZ	2-12	~	SAN	IPLE ID:						DATE:	5/2	0111	·····	
19. A.				1.00	Р	URG	ING DA	TA	_						
WELL DIAMETER	l (inches):		G TER (inches):		WELL SCI DEPTH:	REEN I fe	INTERVAL et to f	eet	STATIC E	DEPTH ER (feet):		PURGE OR BAI	E PUMP TY	PE	
WELL VOL (only fill out	UME PURGE: if applicable)	1 WELL VOL	-UME = (TOT = (AL WELL	DEPTH -	STA	TIC DEPTH 1	row	ATER) X	WELL CAPACI	TY	sfoot	10	23ml	
EQUIPMEN (only fill out	NT VOLUME PU	JRGE: 1 EQU	IPMENT VOL	. = PUMP	VOLUME	+ (TUB	ING CAPACI	TΥ	X TI	JBING LENGTH)	+ FLOV	V CELL	VOLUME	galiolia	
			1	=	gallons	+(gallo	ons/fo	ot X	feet)	í+		gallons =	gailons	
DEPTH IN	WELL (feet):	د 	DEPTH IN	WELL (fee	BING et):		INITIATI	ED A1	r:	ENDED AT:	1 · ·	P	URGED (ga	allons):	
TIME	TIME VOLUME PURGED (gallons) CUMUL. VOLUME PURGED (gallons) DEPTH PURGE RATE (gpm) DEPTH TO WATER (feet) pH (standard units) TEMP. (°C) COND. (circle units) pr S/cm DISSOLVED OXYGEN (circle units) mg/L or % saturation TURBIDITY (NTUS) COLOR (describe) ODOR (describe) 12:06 3750 5.31 6.60 20.7 977 1.34 (Jourly Uhile None) 000 12:11 4600 5.60 19.2 930 017-2 (Jourly Uhile None) 11														
12:06	12:06 3750 5.31 6.60 20.2 927 1.34 (louly while none 12:11 4600 6.60 19.2 930 0172 (louly 11 11														
12:11	2:11 4600 6.60 19.2 930 0.72 Cloudy 11 11 2:14 5200 6.10 19.0 933 0.71 Clour Lt. Lon														
12:14	2:11 4800 8.60 19.2 930 0172 Clow, " " 2:14 5200 6.60 19.0 933 0.71 Clear LL. Lon 12:15 5500 6.60 19.0 933 0.78 Clear LL. Lon														
12:15	2:14 5200 6.10 19.0 933 0.71 clear Lt. Lon 12:15 5500 6.60 19.0 933 0.78 clear Lt. Lon 2:16 500														
12:18	2:14 5200 6.60 19.0 933 0.71 (lear Lt. Lon 12:15 5500 6.66 19.0 933 0.78 clev L1. ton 2:18 5800														
								ļ	-	0					
				-				<u> </u>							
				-							ļ		· · · ·		
Carl Carl								<u> </u>							
WELL CAP TUBING IN	PACITY (Gallon ISIDE DIA. CAP	s Per Foot): 0 PACITY (Gal./F	0.75" = 0.02; =t.): 1/8" = 0.	1" = 0.0 0006; 3	4; 1.25' 3/16" = 0.0	' = 0.06 014;	3; 2" = 0.1 1/4" = 0.002	6; 26;	3" = 0.37; 5/16" = 0.	4" = 0.65; 004; 3/8" = 0	5" = 1.02 .006;	2; 6" 1/2" = (= 1.47; 1 0.010; 5	12" = 5.88 /8" = 0.016	
PURGING	EQUIPMENT C	ODES: B	= Bailer;	BP = Blad	der Pump;	E	SP = Electric	Subn	nersible Pu	mp; PP = Pe	eristaltic	Pump;	O = Oth	ner (Specify)	
SAMPLED	BY (PRINT) / A	FFILIATION:	1	SAMPLE	R(S) SIGN	ATURE			•	0.44101.1910					
0					(-,					INITIATED A	r:		ENDED AT	i 1	
PUMP OR	TUBING		-	TUBING			x 4		FIELD	-FILTERED: Y	N		FILTER SIZ	μm	
	WELL (feet):			MATERI	AL CODE:		V N/r	anlaa	Filtrati	DUBLICATE:	pe:		N		
FIELD DEC					SAM				54)	INTEND	-	CAN			
SAMPLE	#	MATERIAL		PRESER	VATIVE	1	TOTAL VOL		FINAL	- ANALYSIS A	ND/OR	EQUI	PMENT	FLOW RATE	
ID CODE	CONTAINERS	CODE	VOLUME	US	ED	ADDE	D IN FIELD (mL)	рН	METHO	D	C	ODE	(mL per minute)	
63															
REMARKS	:		1								(6) S				
MATERIAL	CODES	AG = Amber	Glass; CG =	Clear Gla	ass; PE	= Poly	ethylene;	PP =	Polypropy	lene; S = Silico	one; T	= Teflor	n; O = Of	her (Specify)	
SAMPLING		CODES: A	APP = After Pe RFPP = Revers	ristaltic Po e Flow Po	ump; I eristaltic Pu	B = Bai mp;	ler; BP = SM = Straw	Blad Meth	der Pump; Iod (Tubing	ESP = Electr Gravity Drain);	ic Subm O = C	ersible F Other (Sp	Pump; pecify)		
NOTES: 1.	The above	do not cons	titute all of f	the infor	mation re	quire	d by Chapt	ter 6	2-160, F.A	LC.		2			

pH: \pm 0.2 units **Temperature:** \pm 0.2 °C **Specific Conductance:** \pm 5% **Dissolved Oxygen:** all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) **Turbidity:** all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

10.

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Revision Date: February 12, 2009

-R.

SITE NAME [.]	C-+	451				SITE LOCATION:	h	101	Fully	6	DUN	ity	
WELL NO:	PZ	-13		SAMP	PLE ID:	16	÷			DATE:	51	1201	11
L					PUF	RGING DA	ATA						
WELL DIAMETER	(inches):	TUBING	; ER (inches):	۱ د	NELL SCREE DEPTH:	N INTERVAL	feet	STATIC I	DEPTH ER (feet):		PURGE OR BA	E PUMP T'	(PE
WELL VOL	UME PURGE: tif applicable)	1 WELL VOL	UME = (TOT	AL WELL C	DEPTH - S	TATIC DEPTH	TOWAT	TER) X	WELL CAPAC	ITY		587	2 ml
EQUIPME		JRGE: 1 EQU	= (. = PUMP \	feet - /OLUME + (T	UBING CAPAC	TY	feet) X X T	UBING LENGTH	gallo	ns/foot	= VOLUME	gallons
(only fill out	t if applicable)			=	gallons + (gal	lons/foot	t X	feet	:) +		gallons	= gallons
INITIAL PU	MP OR TUBING	G	FINAL PUN		ING	PURGI	NG		PURGING	,	Т	OTAL VOL	UME
DEPTH IN	WELL (feet):	0.000		WELL (feet	<u>):</u> .		ED AT:		ENDED AT:	1	P	URGED (g	iallons):
TIME	VOLUME PURGED (gallons)	VOLUME PURGED (gallons)	PURGE RATE (gpm)	TO WATEI (feet)	n pH R (standar units)	d TEMP. (°C)	circle μmh ΩΓι	e units) ios/cm μS/cm	OXYGEN (circle units) mg/L <u>or</u> % saturation	TUR (N	BIDITY TUs)	COLO (descrit	R ODOR be) (describe)
13:21	2500		·	5,68	6-51	20,4	6	89	1.46			men T.	20
13:23	3250				6,12	19.5	6	92	1.49			GL M	in him
13:25	3900				6.05	19.1	6	14	1/0			67 10	22
13.01	4300			1	0.12	10.7	01	14	47/		an Ne		
12. 21	7.00			+								2	
											į.		
												C	
			-				ļ						
WELL CAR	ACITY (Gallon	s Per Foot).	75" = 0.02	1" = 0.04	1 25" = (<u>106: 2" = 0</u>	16: 3	" = 0.37·	4 " = 0.65:	5" = 1.0	2. 6"	= 1.47	12" = 5.88
TUBING IN	ISIDE DIA. CAP	PACITY (Gal./F	t.): 1/8" = 0.0	0006; 3/	16" = 0.0014;	1/4" = 0.00	26; 8	5/16" = 0	.004; 3/8" = 0	0.006;	1/2" =	0.010;	5/8" = 0.016
PURGING	EQUIPMENT C	ODES: B	= Bailer; I	BP = Bladd	er Pump;	ESP = Electric	C Subme	ersible Pu	imp; PP = P	eristaltic	Pump;	0=0	ther (Specify)
SAMPLED	BY (PRINT) / A	FFILIATION:		SAMPLER	(S) SIGNATU	JRE(S):			SAMPLING		T	SAMPLIN	G
	TUDINO			TURING						T:		ENDED A	IT:
DEPTH IN	WELL (feet):		.8°	MATERIA	L CODE:			Filtrati	ion Equipment T	/pe:		FILTERS	ιze: μm
FIELD DEC	CONTAMINATIO	DN: PUM	PYN		TUBING	GYN(replaced	i)	DUPLICATE	: `	<u>ر</u>	N	
SAM			TION	DRECED	SAMPLE	PRESERVATIO		CINIAL	INTEND ANALYSIS A	ED ND/OR	SAM	IPLING IPMENT	SAMPLE PUMP FLOW RATE
ID CODE	CONTAINERS	CODE	VOLUME	USE	D AD	DED IN FIELD	(mL)	рН	METHO	D 🔹	C	ODE	(mL per minute)
		├											
											+		
REMARKS	:	<u>.</u>	L		I	2							-
MATERIAL	CODES:	AG = Amber (Glass; CG =	Clear Glas	s; PE = P	olyethylene;	PP = F	Polypropy	vlene; S = Silic	one; T	= Teflor	n; O = C)ther (Specify)
SAMPLING	G EQUIPMENT	CODES: A	PP = After Pe FPP = Revers	ristaltic Pur e Flow Per	np; B = istaltic Pump;	Bailer; BP SM = Strav	= Bladde w Metho	er Pump; d (Tubing	ESP = Elect Gravity Drain);	nic Subm O =	nersible F Other (S	^o ump; pecify)	
NOTES: 1.	The above of	do not const	titute all of t	he inform	nation requ	ired by Char	oter 62-	160. F.	A.C.				

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)

SITE NAME:	C-H	51			SI	TE DCATION:	ha	atu	14 (00	int	r		
WELL NO	PZ-	15		SAMPLE	E ID:	2	01			DATE:	5	1201	11
					PURC	GING DA	TA				,		· ·
WELL	R (inches):	TUBIN	G TER (inches):	WE		INTERVAL	feet	STATIC D	EPTH R (feet):		PURGE		1
WELL VO	LUME PURGE:	1 WELL VC	LUME = (TOT	AL WELL DEF	PTH - STA	TIC DEPTH 1	TOWA	TER) X	WELL CAPACI	TY	15	85 1	n/
COMPARE					feet -			feet) X		gallon:	s/foot		gallons
(only fill ou	it if applicable)		DIF MERT VOE.	= 0			005/500	+ X 10	feet)	+	OLLL		anolien
INITIAL PU	JMP OR TUBIN	G	FINAL PUM		G	PURGIN	NG		PURGING		т	DTAL VOLUN	AE
DEPTH IN	WELL (feet):	CUMU		NELL (feet):	T		ED AT:		DISSOLVED	r	Pl	JRGED (gallo	ons):
TIME	VOLUME PURGED (gallons)	VOLUME PURGED (gallons)	PURGE RATE (gpm)	UEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	(circl μmh <u>or</u>	le units) hos/cm μS/cm	OXYGEN (circle units) mg/L <u>or</u> % saturation	TURB (NT	IDITY Us)	COLOR (describe)	ODOR (describe)
13:50	1240			8.21			ļ						
14.11	520			8.85									
14:28	540			8.10			<u> </u>						+
15:38	700		-	8.62	651	77.6	80	12	1.48	C	on	cler	rane
12.20													10.00
				ļ									
				-									
			-	-			<u> </u>						
WELL CA	PACITY (Gallon	s Per Foot): PACITY (Gal.	0.75" = 0.02; (Ft.): 1/8" = 0.0	1" = 0.04; 0006: 3/16'	1.25 " = 0.0	6; 2 " = 0.1 1/4 " = 0.002	6; 3	5/16" = 0.37;	4 " = 0.65; 4	5" = 1.02 .006:	; 6" =	= 1.47; 12	" = 5.88 " = 0.016
PURGING	EQUIPMENT C	ODES: E	s = Bailer; E	SP = Bladder I	Pump; E	SP = Electric	Subme	ersible Pur	mp; PP = Pe	nistaltic F	oump;	O = Othe	r (Specify)
	y.				SAMP	LING D	ATA						
SAMPLED	BY (PRINT) / A	FFILIATION:		SAMPLER(S)	SIGNATURI	E(S):			SAMPLING INITIATED AT	:		SAMPLING ENDED AT:	
	TUBING							FIELD-	FILTERED: Y	N		FILTER SIZE	: µm
FIELD DE	CONTAMINATIO	DN: PUN	/IP Y N		TUBING	Y N (re	eplaced	d)	DUPLICATE:	Y		N	
SAM	PLE CONTAINE	RSPECIFIC	ATION		SAMPLE PF	RESERVATIO	DN		INTENDE	D	SAM	PLING S	
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVAT USED	ADDE	D IN FIELD (mL)	FINAL pH	ANALYSIS AN METHO	D	EQUI	DDE (nL per minute)
								<u>.</u>					
				*									
REMARKS	:				• 25				•				
MATERIA	L CODES:	AG = Amber	Glass; CG =	Clear Glass;	PE = Poly	ethylene;	PP = F	Polypropyl	ene; S = Silico	ne; T	= Teflon	; 0 = Othe	er (Specify)
SAMPLING	GEQUIPMENT	CODES:	APP = After Per RFPP = Reverse	istaltic Pump; Flow Perista	B = Bai Itic Pump:	iler; BP = SM = Straw	Bladde	er Pump; d (Tubing	ESP = Electri Gravity Drain):	c Subme	ther (Sr	ump; ecify)	
NOTES: 1.	The above of	lo not cons	titute all of th	ne informat	ion require	d by Chapt	ter 62-	-160, F.A	.C.				

2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

pH: \pm 0.2 units Temperature: \pm 0.2 °C Specific Conductance: \pm 5% Dissolved Oxygen: all readings \leq 20% saturation (see Table FS 2200-2); optionally, \pm 0.2 mg/L or \pm 10% (whichever is greater) Turbidity: all readings \leq 20 NTU; optionally \pm 5 NTU or \pm 10% (whichever is greater)



Appendix C: Weather Station Data

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY C-HS1 MONITORING SAMPLE EVENT REPORT NO. 1

PAGE C-1 HAZEN AND SAWYER, P.C.

		-		-							-
	Temp	Temp	Temp	Humidity	Humidity	Humidity	Wind	Wind	Wind	Rain	Rain
Period	high	avg	low	high	avg	low	high	avg	low	max	total
	(°F)	(°F)	(°F)	(%)	(%)	(%)	(mph)	(mph)	(mph)	(in)	(in)
Jan-10	59	47	34	89	64	39	23	17	7	4.66	8.09
Feb-10	59	47	34	90	66	42	23	18	6	2.13	4.97
Mar-10	69	56	43	92	65	38	24	18	6	2.62	5.11
Apr-10	82	68	53	95	64	33	22	16	5	1.54	3.58
May-10	89	78	66	93	70	45	21	16	5	1.18	2.95
Jun-10	95	84	73	93	69	44	22	16	4	1.90	7.99
Jul-10	94	85	75	93	72	50	26	19	5	1.81	7.83
Aug-10	92	84	76	94	76	56	25	19	4	2.31	9.97
Sep-10	93	81	69	92	66	39	19	14	4	0.71	2.02
Oct-10	84	69	53	92	64	35	20	15	4	0.43	0.78
Nov-10	74	59	44	94	67	40	19	14	5	2.88	3.90
Dec-10	59	45	30	89	63	36	21	16	6	0.37	1.48
Jan-11	59	47	34	94	68	42	21	16	5	1.43	4.43
Feb-11	69	56	42	95	70	43	21	16	5	0.96	2.61
Mar-11	78	64	49	94	67	39	24	18	6	1.56	3.14
Apr-11	85	70	54	94	66	37	23	17	5	1.11	2.11

Table C.1Monthly Recorded Meteorological Data



Appendix D: Field Parameter Analyses

(May 19, 2011 and May 20, 2011)									
	Sample Identification	Temperature (°C)	рН	Specific Conductance (µS)	Dissolved Oxygen (mg/L)	Groundwater Elevation (ft)			
1	STE	22.3	7.20	1,367	1.36	N/A			
2	DP-01	18.6	6.60	845	0.84	N/A			
3	DP-02	18.7	6.60	770	0.56	N/A			
4	DP-03	18.6	6.60	868	0.44	N/A			
5	DP-04	18.8	7.10	570	0.38	N/A			
6	DP-05	20.6	7.10	830	1.50	N/A			
7	DP-06	19.2	7.00	926	0.49	N/A			
8	DP-07	18.9	6.60	813	0.46	N/A			
9	PZ-01	18.9	5.83	75	0.71	91.19			
10	PZ-02	19.2	7.10	516	3.02	91.43			
11	PZ-03	19.0	7.10	500	1.95	91.36			
12	PZ-04	19.2	7.20	484	1.45	91.62			
13	PZ-05	18.8	6.60	752	2.58	91.05			
14	PZ-06	21.3	7.29	580	6.86	91.05			
15	PZ-07	19.6	6.50	999	1.04	91.37			
16	PZ-09	19.1	7.10	665	0.56	91.38			
17	PZ-10	19.5	7.10	674	0.58	91.38			
18	PZ-11	18.8	6.69	913	0.43	91.28			
19	PZ-12	19.0	6.60	933	0.78	91.12			
20	PZ-13	18.9	6.12	692	1.49	91.26			
21	PZ-15	22.6	6.51	842	1.48	91.40			
22	LY-01	21.6	6.42	788	4.57	NA			
23	LY-02	24.2	6.34	1,433	1.95	NA			

Table D.1 Field Parameter Results May 19, 2011 and May 20, 201

FLORIDA ONSITE SEWAGE NITROGEN REDUCTION STRATEGIES STUDY C-HS1 MONITORING SAMPLE EVENT REPORT NO. 1