

Site Assessment Florida Department of **Environmental Protection Petroleum Restoration Program** February 4-7, 2019



SITE ASSESSMENT



Standard Operating Procedures (SOP)

More detailed information and links to rules, statutes, and guidance documents are included in the SOP: <u>https://floridadep.gov/waste/petroleum-</u> <u>restoration/content/prp-site-manager-</u> <u>standard-operating-procedures-sop</u>



- Schedule a pre-work teleconference during Task 1 of the PO to discuss anticipated issues/questions
- Task 1 should include a File
 Review and Site Reconnaissance

- DRF/eligibility package or other forms may indicate source/location of the discharge and a site sketch of the fuel system layout
- Inspections related to fuel system upgrades may include information on odors/staining, or show if tanks/system were removed



COMMENTS:	# ² 1	**				
	oWell				· ` * • •	
				\wedge		······································
	· · · · · · · · · ·	1				ji -
1. : : : :	2 10	tone			91	
· · · · · · · · · · · · · · · · · · ·	2/1		7		e e	
1 = - 100 - 3 > 1,000						
old site o	5 3	^ 4 12	' to 181		1 2	·
umps a Tan,	4, C (un-1		>1000 1270 180 1	01	2300
X280 M	440181	XEL	\$ >1,000	x /		X 151
	4 27		127018			
	5R 6	1 7100.	a 2. 2. 1			
		wate.	P191			<u>.</u>
		Lwater	sample	taken her	*	
	and the second second		,			1







5 T H

STREET















Site recon should include:

- Verify site layout compared to any historical site figures
- Verify any historical compliance/monitoring wells
- Make note of site access conditions
 for drill rigs











- Initial sampling should focus on the potential source areas (tanks, dispensers, and fuel lines)
- If the site layout has changed since the discharge, ensure you are assessing the correct area





Soil Samples:

- Initial samples should be spaced approximately 10 to 15 feet apart
- Install borings around the perimeter of the UST area, as close to the dispensers as safe, along the piping runs if obvious/marked
- You can include some step-outs

















Groundwater Samples:

- Grab samples can be collected during soil boring installation
- Determine initial monitoring well placement based on soil lab results or grab sample results
- Additional soil assessment can be performed during well installation

Groundwater Samples (continued):

- Include at least one upgradient well, at least one downgradient well, and two sidegradient wells in the initial well installation activities
- Well spacing should be approximately 30 feet, based on accessibility









Laboratory Sampling:

- Laboratory sampling analytes should be selected based on the fuel types stored at the facility and the reported product discharged
- Refer to the SOP to determine which laboratory analytical methods are required

Initial Assessment Report:

- Typically the initial assessment will not fully delineate the soil and groundwater plumes
- The report for the initial assessment task should include recommendations for step-out locations and additional sampling

Initial Assessment Report (continued):

- Additional assessment(s) can be approved in the next task by change order, or be the basis for the next purchase order
- Should be tasked as an Interim Assessment Report











LSA is only intended to get a general idea of what petroleum impacts (if any) are present at the site. We only need to know if the site is clean, will require NAM or Active Remediation, or is an imminent threat



An LSA does not require a full delineation of soil and groundwater plumes, only a general idea of the impacted area and concentrations, and whether the petroleum plumes are contained within the property boundaries



- Soil borings should be spaced at 20- to 30-foot intervals when stepping out from confirmed screening or laboratory analytical exceedances
- At smaller sites, it may be appropriate to place step-out soil borings at the site boundaries



- If the first set of step-out soil borings still show petroleum impacts, it may be appropriate to step-out to the property boundary
- Assessment should end at the property boundaries unless there is excessive contamination or a sensitive receptor downgradient



- Monitoring Wells should be spaced at 30- to 50-foot intervals when stepping out from confirmed screening or laboratory analytical exceedances
- At smaller sites, it may be appropriate to place step-out wells at the site boundaries



- If the first set of step-out wells still show petroleum impacts, it may be appropriate to step-out to the property boundary
- Assessment should end at the property boundaries unless there is excessive contamination or a sensitive receptor downgradient


























 Generally, a deep monitoring well should not be required during an LSA unless there is excessive contamination or a sensitive receptor nearby







THE END

- SRCO with Conditions
- SRCO
 - Source Removal
 - Air Sparging/Soil Vapor Extraction
 - Multiphase Extraction
 - Injection



- Factors for "THE END"
 - Lithology
 - Money
 - Structures
- Planned use



- When wrapping up assessment
 - Communication
 - Ask the owner what type of closure he wants needs/ planned property use
 - Ask your engineer to look at the site
 - Ask your ATC to have their engineer look at the site
 - What remedial strategy
 - What data does the engineer need



- Site history on base map
 - Tank pits/dispensers
 - Previous excavations
 - Previous systems
 - Previous soil borings and wells
- Site history in tables
- Are the plumes defined?
- How old is the data?



- Groundwater Plume
 - Is it defined?
 - Connect the dots
 - Need wells?
 - To define the plume
 - To refine the plume
 - If planning a SR and need wells, may want to use grab sample in area being excavated







- Groundwater Plume
 - Age of data
 - For RAP design must be less than 9 months
 - Verifying old data / updating new
 - Sampling selected wells vs sampling all wells



- What additional groundwater data do I need?
 - Injections baseline for variance parameters
 - MPX minerals that might foul the pump
 - Any outliers lead



- Soil Plume
 - Is it defined? Connect the dots.
 - AS/SVE & MPX
 - Edges
 - Mass
 - Soil removal
 - Much more data
 - Add soil borings to decrease area









Where are soil borings needed for an AS/SVE system?





Where are soil borings needed for a source removal?



- Soil Plume
 - Age generally no more than 3 years
 - Verifying old data
 - System edges and mass
 - Check some, if changes, check more
 - Source removal still hot at edges
 - Check some, if changes, check more
 - Direct Exposure



- What additional soil data do l need?
 - Sidewall samples from historical excavations?
 - Total organic carbon ?
 - SPLP or fractionation
 - Reduce the area for source removal if soil plume not contained within groundwater plume



- SRCO with conditions
 - Soil data
 - Plume Direct exposure vs
 leachability
 - Defined in an area for controls
 - Surveyed
 - Groundwater data
 - Plume stable
 - Plume onsite vs onsite and ROW
 - No groundwater use



• Plan the supplemental assessment with THE END in mind.





- When soil or groundwater samples at the property boundary exceed CTLs, off-site assessment will be required
- Off-site noticing is not required until verified (by laboratory sampling) contamination is identified on offsite properties







- Off-site assessment will require Off-Site Property Access Agreement pay items (1-5) for adjacent properties and roadway rights-of-way
- Permit Fees (1-4) may be required for right-of-way work (FDOT, city roads)



- Soil borings and monitoring wells should be installed as close to the inner property boundary as possible before moving off-site
- If the right-of-way is large enough, the first off-site wells should be installed on the same side of the road as the property











- If the right-of-way is too small, or right-of-way sampling also reports contamination, step-out across roadways
- At least one off-site sampling location should be installed to delineate the downgradient plume



- If the plume is large, or groundwater flow direction is variable, multiple off-site sampling locations may be required
- If permanent wells are not possible, grab sampling may be acceptable to delineate contamination



- Spacing for off-site monitoring wells/soil borings should be 30- to 50-feet, contingent on accessibility
- Continue to step-out as needed to delineate the soil and groundwater plume







EXPECTATIONS/CONSISTENCY/TECHNICAL REPORT REVIEW

Site Assessment Expectations/Consistency/Technical Report

GOALS

- Technical accuracy and completeness of all documents
- Meet requirements of Chapter 62-780.600(8) and associated guidance documents
- Adherence to established professional standards
- Consistency between site managers across the Department and Local Programs –
- DO NOT ACCEPT SUBSTANDARD WORK
 PRODUCT
WHY SO IMPORTANT??

- Tables summarize all data in chronological order
- Critical for evaluating temporal trends
- Figures provide a graphical presentation of the data
- Vital to understanding the spatial distribution of contaminants
- Evaluate the movement of groundwater and contaminants in the environment
- Essential for good decision making

REQUIRED FIGURES

- USGS topographic site location map
- Site vicinity map
- <u>SCALED</u> site plan
- At least <u>2</u> geologic cross
- Scaled site map(s) showing soil sample locations and horizontal <u>AND</u> vertical extend of vadose soil contamination

REQUIRED FIGURES (Continued)

- Well construction diagram(s)
- Scaled site map showing horizontal extent of free product
- Scaled site map(s) showing groundwater and surface water sampling locations and the extent of contamination

TABLES

- Use most current formats from Department
- Data tables must be cumulative include <u>ALL</u> historical data
- Confirm transcription of data against field notes and lab reports



GROUNDWATER ELEVATION SUMMARY TABLES

- Confirm groundwater elevation calculations
- If free product is present, groundwater elevations <u>MUST</u> be corrected for the thickness and density of product

ANALYTICAL DATA TABLES

- Must identify units of measure
- Must include lab qualifiers
- Confirm unit conversions (µg to mg)
- Significant figures

UNIT CONVERSIONS

- Most often seen on soils data, especially TRPH
- µg/kg to mg/kg or vice versa
- Confirm that the SCTLs are presented in the same units as the data

SIGNIFICANT FIGURES

- Necessary to convey the degree of accuracy of measurement or analysis
- Common error whenever unit conversions are made
- Non-zero digits are always significant
- Zeros between 2 significant digits are significant
- A final zero or trailing zeroes in the decimal portion of a number are significant



SIGNIFICANT FIGURES AND UNIT CONVERSIONS – EXAMPLES

0.01400 mg/kg = 14.00 μg/kg 0.0140 mg/kg = 14.0 μg/kg 0.014 mg/kg = 14 μg/kg 7.0 μg/kg = 0.0070 mg/kg, not 0.007 mg/kg

SITE PLANS

- Drawn to scale
- Detailed should include site boundaries; current and historical tank, piping, and dispenser locations; buildings and structures; driveways; utilities; paved and unpaved areas; etc.
- Site plan using only an aerial photo is NOT acceptable



WHY NO AERIALS?







GOOD SITE PLAN

- Site boundary
- Properly scaled
- Good details
- Structures
- Monitoring wells
- Utilities





GOOD SITE PLAN

- Site boundary
- Properly scaled
- Good details
- Identified current and former USTs
- Structures
- Well locations
- Utilities





POOR SITE PLAN

- Site boundary
- Uses an aerial photo for the base map
- No site details





POOR SITE PLAN

- Uses an <u>oblique</u>
 aerial photo
- No site boundary
- No site details
- Not properly scaled



GEOLOGIC CROSS SECTIONS

- Stratigraphy
- Contaminant concentrations (soil OVA, soil analytical, and groundwater analytical, including isocontours where possible)
- Depict monitoring wells, including screened intervals
- Water table



GEOLOGIC CROSS SECTION

- Ground surface elevation
- Stratigraphy
- Monitoring wells with screened intervals
- Soil borings
- OVA data and contours
- Water table



GROUNDWATER ELEVATION MAPS

- Minimum of 3 data points
- Data points spread out i.e. <u>NOT</u> in a straight line
- Data collected on same date
- Follow contouring rules
- Contour lines extending outside of the data envelope are inferred and should be dashed



BASIC GEOMETRY OF CONTOURING

- 2 points in space define a line
- Cannot contour
- 3 points in space define a plane
- Contours = straight and evenly-spaced
- >3 points needed to define a surface



REMEMBER: 2 POINTS DEFINE A LINE, 3 POINTS DEFINE A PLANE



GOOD GW ELEVATION MAP

- Good base map
- Constructed with ≥3 well-spaced data points
- Follows contouring rules
- Arrows showing GW flow
- Contours within data envelope





POOR GW ELEVATION MAP

- Good base map
- Constructed with
 only 2 data points
- NOT A VALID MAP

2 POINTS DEFINE A LINE!!







POOR GW ELEVATION MAP

- Good base map
- Constructed with ≥3 well-spaced data points
- Provided arrows showing GW flow
- Followed contouring rules...mostly!





POOR GW ELEVATION MAP

- Improper base map
- Does not follow contouring rules
- Contours extend well beyond the data envelope





SOIL OVA MAPS

- When possible, should be constructed for discrete depth intervals, e.g. 0-5', 5-10', etc.
- Only use vadose zone samples
- Contour lines dashed where inferred



SOIL OVA MAP

• Single depth interval

• Only data for that interval posted



SOIL ISOCONCENTRATION CONTOUR MAPS

- Where possible, individual maps for each constituent that exceeds SCTLs should be prepared
- Constructed for discrete depth intervals, e.g. 0-5', 5-10', etc.
- Contours for GWL, RDE, and CIDE SCTLs, as applicable
- In most cases, only use vadose zone samples
- Contour lines dashed where inferred
- A data post map is acceptable when limited data is available

GROUNDWATER ISOCONCENTRATION CONTOUR MAPS

- Individual maps for each constituent that exceeds GCTLs
- Contours for GCTL and NADC
- Contour lines dashed where inferred
- Should not include data from different depth horizons, i.e. separate maps for shallow, intermediate, and deep zones, as needed



BEST MAP

- Un-cluttered and easy to read
- Wells easy to identify
- Map is for a single analyte
- Contours for GCTL and NADC
- Displays only data used to prepare the map.





GOOD MAP

- Un-cluttered and easy to read
- Wells easy to identify
- Map is for a single analyte
- Contours for GCTL and NADC
- Uses data blocks





POOR MAP

- Data from multiple depth intervals
- Contours based on mixture of current and old data
- Small font VERY difficult to read
- Too much wasted space





POOR MAP

- Most site features identifiable
- Wells easy to identify
- <u>Individual</u>
 <u>contaminants</u>
 <u>not contoured</u>



SUMMARY

- Good maps and tables are essential
- Chronological presentation of data in tables allows quick analysis of concentration trends over time
- Accurate site plans and contaminant concentration maps are critical to making good assessment and remediation decisions





Groundwater Sampling Quality Assurance



Groundwater Sampling Goals

- Representative Sample
- Collect fresh formation (aquifer water)
- No cross-contamination
- Proper placement of purging devices
- Appropriate equipment
- Proper purging completion
- Stable field measurement per SOP


Purpose of a well is to produce water representative of the groundwater surrounding the screened part of the well

MONITORING WELL DIAGRAM





Groundwater Sampling SOP Variances and Clarification

https://floridadep.gov/sites/default/files/BPSSVariances-Final-May02-2005.pdf



Conventional (Well Volume) Purge - Fully Submerged Screens

- Intake is placed at top two feet of the water column
- Calculate the well volume
- Purge one well volume
- *Measure stabilization parameter no sooner than each ¼ well volume interval*
- Purge at least 1½ well volumes



Conventional (Well Volume) Purge - Partially Submerged Screen

- Intake is placed at the top 2' per PCS-005
- Calculate well volume
- Purge one well volume
- Measure stabilization parameters
- Collect additional measurement no sooner than every 2 minutes

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

Easility Information	SITE NAME:				SIT	E CATION:						
Facility information	WELL NO:			SAMPLE ID				1	DATE:			
					PURG	ING DA'	TA					
Well Volume	WELL DIAMETER (inches): WELL VOLUME PURGE (only fill out if applicable)	DIAME	TER (inches): LUME = (TOT)	DEPTH AL WELL DEPTH	t fee I - STAT	tto fe	TO WATER) X	ER (feet): WELL CAPACI		BAILER:		
Calculation	EQUIPMENT VOLUME (only fill out if applicable)	PURGE: 1 EQU	= (IIPMENT VOL.	= PUMP VOLUN	et – IE + (TUBI)	NG CAPACIT	feet) X Y X T	UBING LENGTH)	gallons/fc + FLOW Cl	et = ELLVOLUME	gallons	
	INITIAL PUMP OR TUBI DEPTH IN WELL (feet)	NG	FINAL PUM	P OR TUBING	ins · (PURGING	G AT	PURGING ENDED AT		TOTAL VOLU PURGED (02	JME allons):	
Purge Stabilization Information	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 <u>or</u> µS/cm	OXYGEN (circle units) mg/L <u>or</u> % saturation	TURBIDI (NTUs)	TY COLOR (describe	e) (describe)	
	WELL CAPACITY (Gaid TUBING IN SIDE DIA. C/ PURGING EQUIPMENT	ns Per Foot): (APACITY (Gal/i CODE S: B	0.75" = 0.02; Ft.): 1/8" = 0.1 = Bailer: 1	1" = 0.04; 1. 0006; 3/16" = (3P = Bladder Pun	25" = 0.06; 0.0014; ' no: E S	2" = 0.16 1/4" = 0.0026 P = Electric S	; 3" = 0.37; 5; 5/16" = 0. Submersible Pu	4" = 0.65; ! .004; 3/8" = 0. mp: PP = Pe	5" = 1.02; 006; 1/2 eristaltic Pur	6" = 1.47; 2" = 0.010; 5 mp: O = Oth	12" = 5.88 /8" = 0.016 her (Specify)	
Sample Collection	SAMPLED BY (PRINT) /	AFFILIATION:		SAMPLER(S) SI	GNATURE((S):		SAMPLING INITIATED AT	T:	SAMPLING ENDED AT	3	Well Capacity
Information	PUMP OR TUBING DEPTH IN WELL (feet): FIELD DECONTAMINAT	ION: PUM	P Y N	TUBING MATERIAL COD	DE: TUBING	Y N (re	FIELD Filtrati placed)	OFFILTERED: Y on Equipment Typ DUPLICATE:	pe: Y	FILTER SIZ	ZE:μm	Conversion
	SAMPLE CONTAIN SAMPLE # ID CODE CONTAINERS	IER SPECIFICA MATERIAL CODE	VOLUME	SAMPLE PR PRESERVATIVE USED	RESERVAT	TION (indudir DTAL VOL D IN FIELD (n	ng wet ice) nL) PH	INTENDE ANALYSIS A METHO	ED ND/OR E	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)	Stabilization Criteria Sample Collection Information
	REMARKS: MATERIAL CODE S: SAMPLING EQUIPMEN NOTE S: 1. The above 2. <u>STABILIZAT</u> pH: ± 0.2 units optionally, + 0.	AG = Amber S = Silicone; TCODES: A do not cons: ON CRITERIA F Temperatur 2 mg/L or + 11	Glass; CG = T = Teflon; APP = After (Th EPP = Revers titute all of tl FOR RANGE OF re: ± 0.2 °C 1 0% (whicheve	Clear Glass; O = Other (Spe rough) Peristaltic e Flow Peristaltic e VARIATION OF L Specific Cond r is greater) T	HDPE = Hi edfy) :: Pump; :: Pump; n required LAST THREF uctance: furbidity:	gh Density P B = Bailer; SM = Straw I by Chapte E CONSE CUT ± 5% Diss all readings	BP = Blad Method (Tubing rr 62-160, F. A TIVE READING: olved Oxyge < 20 NTU; o	LDPE = Low De der Pump; ES Gravity Drain); A.C. s (SEE FS2212 en: all readings_ ptionally + 5 NT	nsity Polyet P = Electric O = Othe <u>SECTION</u> <u><</u> 20% sat U or + 109	hylene; PP = : Submersible P r (Specify) 3) uration (see T % (which ev er i	= Polypropylene; ump; able FS 2200-2; s greater)	

Is screen partially submerged?-

Calculating Well Volume V = [Gallons per foot of water] x h (height of water column in feet)

Collect parameters no' sooner than every 2 minutes



-i-

>Well capacity for 2" wells is 0.16 Gallons per foot

Purge one volume prior to initiating parameters

Is tubing placed in the top 2'?



Minimized (Equipment Volume) Purge

- Applicable only for wells designed with a fully submerged screen that are no more than 10 feet long
- Intake is placed in the middle of the screened interval
- The purge volume is calculated using the Equipment Volume Purge Formula provided on the form
- Purge one equipment volume
- Measure stabilization parameters
- Collect additional parameters no sooner than every 2 minutes
- Purge a minimum of 3 equipment volumes

Calculating Equipment Volume purge V = (tubing capacity x length)+ flow cell volume

Is the screen fully submerged?

Is the volume purged \geq than the amount calculated?

Drawdown must be stabilized



11



Purging and Sampling Low-Recharge Wells That Go Dry

- Minimize equipment volume
- Use thick walled tubing
- Place intake at top of water column
- Purge <100 mL/min; follow drawdown
- Purge 2 equipment volumes if possible
- *Measure stabilization parameters just before sampling.*
- Collect samples immediately after purging (or after dry recharge)



Purging completed/Sample collection

When three (3) consecutive measurements of the five (5) parameters listed are within the stated limits

Is PH within ±2.0 units?

Is Temp within ±2.0 units?

Is depth to water stabilized?

Compare Sampling Data information with Chain of Custody (COC)

	isy Boy				LO	CATION: 1	6751 NE S	R 65,	Hosfor	rd, FL	
WELL NO:	MW-1	OR		SAMPLE	ID: MW	- IOR			DATE: 2	121/18	
					PURG	ING DA	TA				
WELL	(inches)	TUBING	G	3/16 WE	LL SCREEN I	NTERVAL	STATIC D	EPTH IDO	5 PUI	RGE PUMP T	PE
WELL VOL	UME PURGE:	1 WELL VOI	LUME = (TOT	AL WELL DEP	TH - STAT	IC DEPTH T	OWATER) X	WELL CAPACI	TY	BAILER:	<u>P</u>
(only in our	a apparcanie/		= (15	feet ~	10.05	feet) X	.16	gallons/fo	ot = •	19 gallon
Conty fill out	f volume pu if applicable)	JRGE: 1 EQU	JIPMENT VOL	. ='PUMP VOL	UME + (TUB	NG CAPACI	гүх ти	BING LENGTH)	+ FLOW CE	LL VOLUME	
			CINAL DUB	= gi	allons + (gallo	ns/foot X	feet)	+	gallons	= gallor
DEPTH IN V	VELL (feet):	12,0	DEPTH IN	WELL (feet):	120	INITIATE	DAT: 235	ENDED AT:	1249	PURGED (pallons): 1, 4
TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gailons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) <u>mg/L</u> or	TURBIDI (NTUs)	COLO (descrit	R ODOR ce) (describ
243	. 80	. 80	,10	10.63	6.34	1321	199	0,75	15.2	- Wal	Anna
1246	30	(.10	01,	10.69	6.36	23.26	195	0.69	115	Eva	Sten
1249	130	1.40	, 10	10.72	6.39	33.25	200	0.64	9.53	Clean	Str
									1.		
				-							
									+		
WELL CAP	ACITY (Gallon	s Per Fool):	0.75" = 0.02;	1" = 0.04;	1.25" = 0.06	; 2" = 0.1	6; 3 ⁷⁷ = 0.37;	4" ≈ 0.65;	5" = 1.02;	6° = 1.47;	12" = 5.88
WELL CAP TUBING IN	ACITY (Gallon SIDE DIA, CAR	s Per Foot): PACITY (Gal./	0.75" = 0.02; Ft.): 1/8" = 0.	1" = 0.04; 0006; 3/16'	1.25" = 0.06 '= 0.0014;	; 2" = 0.1 1/4" = 0.002	8; 37 = 0.37; 6; 5/16" = 0.0	4" ≈ 0.65; 004; 3/8" = 0	5" = 1.02; 0.006; 1/2	6" = 1.47; " = 0.010;	12" = 5.88 5/8" = 0.016
WELL CAP TUBING IN PURGING I	ACITY (Gallon SIDE DIA, CAP EQUIPMENT C	s Per Fool): PACITY (Gal./ CODES: B	0.75" = 0.02; Ft.): 1/8" = 0. B = Bailer;	1" = 0.04; 0006; 3/16' BP = Bladder I	1.25" = 0.06 ' = 0.0014; Pump; E SAMP	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA	8; 3" = 0.37; 6; 5/16" = 0.0 Submersible Pur	4° = 0.65; 004; 3/8" = 0 np; PP = Pe	5" = 1.02; 1.006; 1/2 eristaltic Pur	6" = 1.47; " = 0.010; np; O = 0	12" = 5.88 5/8" = 0.016 ther (Specify)
WELL CAP TUBING IN PURGING I SAMPLED I NOah E	ACITY (Gallon SIDE DIA, CAR EQUIPMENT C BY (PRINT) / A Bryant	s Per Foot): PACITY (Gal.) CODES: B INFFILIATION: AS&E	0.75" = 0.02; Ft.): 1/8" = 0. 3 = Bailer;	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S)	1.25" = 0.00 = 0.0014; Pump; E SAMP SIGNATURE	; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA	8; 3* = 0.37; 6; 5/16* = 0.0 Submensible Pur	4" = 0.85; 104; 3/8" = 0 np; PP = P(SAMPLING INITIATED A'	5" = 1.02; 0.006; 1/2 eristaltic Pun T: \2S I	6" = 1.47; " = 0.010; p; O = 0 SAMPLIN ENDED /	12" = 5,88 5/8" = 0.016 ther (Specity)
WELL CAP TUBING IN PURGING I SAMPLED Noah E PUMP OR T	AGITY (Gallon SIDE DIA, CAP EQUIPMENT C BY (PRINT) / A Bryant TUBING WELL (feet):	S Per Fool): PACITY (Gal / CODES: B IFFILIATION: AS&E	0.75" = 0.02; Ft.): 1/8" = 0. 3 = Bailer;	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S) TUBING MATERIAL C	1.25" = 0.00 '= 0.0014; Pump; E SAMP SIGNATURE ODE: HDE	2" = 0.1 1/4" = 0.002 SP = Electric LING DA	8; 3" = 0.37; 6; 5/16" = 0.5 Submersible Pur VTA FIELD- Fitzatic	4" = 0.65; 104; 3/8" = 0 np; PP = Pe SAMPLING INITIATED A' FILTERED: Y n Equipment Tv	5" = 1.02; 1.006; 1/2 eristaltic Pur T: \2S T: \2S	6" = 1.47; " = 0.010; ID: O = O SAMPLIN ENDED / FILTER S	12" = 5.88 5/8" = 0.016 ther (Specify) IG IT: 1255
WELL CAP TUBING IN PURGING I SAMPLED I Noah E PUMP OR T DEPTH IN FIELD DEC	ACITY (Gallon SIDE DIA, CAF EQUIPMENT C BY (PRINT) / A Bryant TUBING WELL (feet): ONTAMINATI(s Per Foot): PACITY (Gal) CODES: B UFFILIATION: AS&E (2.0 DN: PUN	0.75" = 0.02; Ft): 1/8" = 0. B = Bailer; MP Y (N	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S TUBING MATERIAL C	1.25" = 0.00 = 0.0014; Pump; E SAMP SIGNATURE ODE: HDF TUBING	i; 2" = 0.1 1/4" = 0.002 SP = Electric LING DA (S): PE Y (Nite	6; 3" = 0.37; 6; 5/16" = 0.0 Submersible Pur ATA FiELD Filtratic splaced)	4" = 0.65; 104; 3/8" = 0 104; 3/8" = 0 104; 9/8" = 0 104; 3/8"	5" = 1.02; 1.006; 1/2 eristaltic Purr T: \2S I T: \2S I rpe; Y	6" = 1.47; " = 0.010; pp: 0 = 0 SAMPLIN ENDED / FILTER S	12" = 5.88 5/8" = 0.016 ther (Specify) IG 17: 255
WELL CAP TUBING IN PURGING IN SAMPLED I Noah E PUMP OR T DEPTH IN N FIELD DEC SAMP	ACITY (Gallon SIDE DIA, CAI EQUIPMENT C BY (PRINT) / A Bryant FUBING WELL (feet): ONTAMINATIO	s Per Foot): PACITY (Gal/ CODES: B SODES: B FFILIATION: AS&E (2C DN: PUN ER SPECIFIC/	0.75" = 0.02; Ft.): 1/8" = 0. B = Bailer; AP Y (N ATION	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S) TUBING MATERIAL C	1.25" = 0.00 = 0.0014; Pump; E SAMP SIGNATURE SIGNATURE TUBING = PRESERVA	2" = 0.11 1/4" = 0.002 SP = Electric LING DA SP = Y TION (included)	8; 3" = 0.37; 6; 5/16" = 0.1 Submensible Pur NTA FIELD. Filtratic aplaced) ing wet ice)	4" = 0.65; 104; 3/8" = 0 np; PP = P4 SAMPLING INITIATED A' FILTERED: Y MEQUIPMENT TY DUPLICATE: INTEND	5" = 1.02; 1.006; 1/2 eristatic Pur T: \2S T: \2S pe: Y ED	6" = 1.47; " = 0.010; p; O = 0 SAMPLINE FILTER S SAMPLING	12" = 5.88 5/8" = 0.016 ther (Specify) IG IT: 1255 IZE:µm
WELL CAP TUBING IN PURGING I SAMPLED I Noah E PUMP OR T DEPTH IN Y FIELD DEC SAMPLE SAMPLE	ACITY (Gallon SIDE DIA, CAF EQUIPMENT C BY (PRINT) / A Bryant TUBING WELL (feet): ONTAMINATIO TLE CONTAINE A CONTAINEDS	s Per Fool): PACITY (Gal./ CODES: B CODES:	0.75" = 0.02; Ft.): 1/8" = 0. I = Bailer; I = Bailer;	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S) TUBING MATERIAL C SAMPLI PRESERVAT	1.25" = 0.00 = 0.0014: Pump: E SAMP SIGNATURE ODE: HDF TUBING PRESERVA TVE ADDE	2" = 0.11 1/4" = 0.002 SP = Electric LING DA SS PE Y TION (includ OTAL VOL IN FIELD (8: 3" = 0.37; 6: 5/16" = 0.1 Submensible Pur TA FIELD Filtratic splaced) ing wet ica) ml FINAL	4" = 0.65; 104; 3/8" = 0 np; PP = P4 SAMPLING INITIATED A' FILTERED: Y MEQUIPMENT TY DUPLICATE: INTEND ANALYSIS A METHO	5" = 1.02; 1006; 1/2 eristaltic Purr T: \2S T: \2S PD: Y ED ND/OR E	6" = 1.47; = 0.010; = 0.010; = 0.010; = 0.010; = 0.000; = 0.	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE:m SAMPLE PUN FLOW RAT (mL per minu
WELL CAP TUBING IN PURGING I NOAD E PUMP OR FIELD DEC SAMP SAMPLE IO CODE AVAN US2	AGITY (Gallon SIDE DIA, CAF EQUIPMENT C BY (PRINT) / A Bryant TUBING WELL (feet): ONTAMINATIO ONTAMINATIO CONTAMINERS 1	s Per Foot): PACITY (Gal./ CODES: B FFILIATION: AS&E () C DN: PUN ER SPECIFIC/ MATERIAL CODE AG	0.75" = 0.02; FL): 1/8" = 0. B = Bailer; B = Bailer; MP Y (N ATION VOLUME 250 mL	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S) TUBING MATERIAL C SAMPLI PRESERVAT USEO H2SO4	1.25" = 0.00 1 = 0.0014; Pump: E SAMP SIGNATURE DISIGNATURE TUBING PRESERVA TVE ADDE	: 2" = 0.1 14" = 0.002 SP = Electric LING DA (S) PE Y (Not TTON (includ OTAL VOL D IN FIELD ()	8; 3" = 0.37; 6; 5/16" = 0.1 Submensible Pur TA FIELD FIELD ing wet ice) FINAL pH	4° = 0.65; 204; 38 ⁹ = 0 np: PP = Pi SAMPLING INITIATED A' FILTERED: Y DUPLICATE: INTEND ANALYSIS A METHO PAHS	5" = 1.02; 1006; 1/2 eristaltic Purr T: \2S T: \2S Y ED NDDOR E S	6" = 1.47; "= 0.010; ID: 0 = 0 SAMPLINE FILTER S SAMPLING CODE A-00	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE:
WELL CAP TUBING IN PURGING I SAMPLED NOAH E PUMP OR FIELD DEC SAMPLE ID CODE ID CODE	AGITY (Gallon SIDE DIA, CAP EQUIPMENT C BY (PRINT) / A BY (PRINT)	s Per Foot): PACITY (Gal/ CODES: E SFILLATION: AS&E UC-C CN: PUN ER SPECIFIC MATERAL CCOR AG CG	0.75" = 0.02; FL): 1/8" = 0. B = Bailer; D = Bailer; MP Y (N ATION VOLUME 250 mL 40 mL	1" = 0.04; 0006; 346' BP = Bladder I SAMPLERIS SAMPLERIS SAMPLI PRESERVAT USED H2SO4 HCI	1.25" = 0.00 '= 0.0014; Pump; E SAMP SIGNATURE TUBING PRESERVA TVE ADDE 	(; 2"=0.1 14"=0.002 SP = Electric LING DA (S) PE Y (S) TTON (netud OTAL VOL D IN FIELD ()	8; 3" = 0.37; 6; 5/16" = 0.1 Submensible Pur TA FIELD- FitPublic splaced) Ing wet ice) FINAL pH	4° = 0.65; 204; 38 ⁹ = 0 np: PP = Pi SAMPLING INITIATED A' FILTERED: Y DUPLICATE: INTEND ANALYSIS A METHO PAHS BTEX/ M	5" = 1.02; 1006; 1/2 eristaltic Purr T: \2S I (N) ED NDNOR E DD S ITBE	6" = 1.47; "= 0.010; p: 0 = 0 SAMPLINE ENDED / FILTER S SAMPLING GOUPMENT GOUP	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE:
WELL CAP TUBING IN PURGING I NOAH E PUMP OR DEPTH IN FIELD DEC SAMPLE SAMPLE MIN 102 45 102 45 102	AGITY (Galion SIDE DIA, CAI SQUIPMENT C BY (PRINT) / A BY (PRINT)	s Per Foot): ACITY (Gal./ ACITY (Gal./ CODES: E SUBJECTIV (Gal./ SUBJECTIV (Gal./ AS&E () CCC AG CCG	0.75" = 0.02; FL): 1/8" = 0. = Baller; AP Y (N ATION VOLUME 250 mL 40 mL	1" = 0.04; 0006; 346' BP = Bladder I SAMPLER(S; TUBING MATERIAL C SAMPLI PRESERVAT USED H2SO4 HCI	1.25" = 0.00 '= 0.0014; '= 0.0014; Pump: E SGNATURE SIGNATURE ODE: HDF TUBING E PRESERVA TVE ADDE	2"=0.1 14"=0.002 SP = Electric LING DA SS PE Y (Not TTON (includ OTAL VOL D IN FIELD (8: 3" = 0.37; 6: 5/16" = 0.1 Submensible Pur TA FIELD- Filtratic aplaced) ing wet ice) FINAL pH	4° = 0.65; 104; 3/8" = 0 np; PP = Pr SAMPLING INITIATED A' FILTERED: Y INTEND DUPLICATE: INTEND ANALYSIS A METHC PAHS BTEX/ M	5" = 1.02; 1006; 1/2 eristaltic Pur T: \2S \ (N) Ppe: Y ED NDDOR ED NDDOR ED NDDOR ED NDDOR ED	6" = 1.47; "= 0.010; D: 0 = 0 SAMPLINE ENDED / FILTER S SAMPLING GOUPMENT CODE ACC ACC	12" = 5.88 5/8" = 0.016 ther (Specify) IG TT: 1255 IZE:µm SAMPLE PUR FLOW RAT (mL per minu 100
WELL CAP TUBING IN PURGING I Noah E PUMP OR T DEPTH IN FIELD DEC SAMPLE ID CODE MW UP 4/S 10(2 PUM 102	AGITY (Galion SIDE DIA, CAI EQUIPMENT C BY (PRINT) / A Sryant TUBING WELL (FGH): CONTAMINATI(LLE CONTAMINATI LLE CONTAMINATI 3	s Per Foot): ACITY (Gal / ACITY (Gal / ACITY (Gal / CODES: 8 SPEFILIATION: AS&E () C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C	0.75° = 0.02; FL): 1/8° = 0. = Bailer, MP Y (N ATION VOLUME 250 mL 40 mL	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S) TUBING MATERIAL C MATERIAL C SAMPLI PRESERVAT USED H2SO4 HCI	1.25" = 0.0014; = 0.0014; Pump: E SAMP SIGNATURE ODE: HDF TUBING E PRESERVA ADDE 	27 = 0.11 144" = 0.002 SP = Electric LING DA SP PE Y TION (Includ TION (Includ D IN FIELD ()	8: 3* = 0.37; 6: 5/16* = 0.0 Submensible Pur TA FIELD Filtratic splaced) ing wet ice) FINAL pH	4" = 0.65; 104; 3/8" = 0 np; PP = Pr SAMPLING INITIATED A' FILTERED: Y MEQUIPMENT TY DUPLICATE: INTEND ANALYSIS A METHC PAHS BTEX/ M	5" = 1.02; 1006; 1/2 eristaltic Puri T: \2S I pe: Y ED ND/OR E S S ITBE	6" = 1.47; "= 0.010; p: 0 = 0 SAMPLIN ENDED / FILTER S N SAMPLING COUPMENT CODE AQQ	12" = 5.88 5/6" = 0.016 ther (Specify) IC T: 255 IZE:um FLOW RAT (mL per minu 100 100
WELL CAP TUBING IN PURGING I Noah E PUMP OR T DEPTH IN FIELD DEC SAMPLE ID CODE MW UP 4/S 10(2 PUM 102	AGITY (Galion SIDE DIA, CAI EQUIPMENT C BY (PRINT) / A Sryant TUBING WELL (FRINT) / A Sryant CUNTAMINATIC LE CONTAMINATIC CONTAMINATIC 3	s Per Foot): ACITY (Gal / ACITY (Gal / ACITY (Gal / CODES: 8 SPEFILIATION: AS&E () C.C. CN: PUIN ER SPECIFIC: AG CG	0.75° = 0.02; FL): 1/8° = 0. = Bailer, MP Y (N ATION VOLUME 250 mL 40 mL	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S) TUBING MATERIAL C MATERIAL C SAMPLI PRESERVAT USED H2SO4 HCI	1.25" = 0.0014; = 0.0014; Pump: E SAMP SIGNATURE ODE: HDF TUBING E PRESERVA ADDE 	2"=0.11 14"=0.002 SP = Electric LING DA	8: 3" = 0.37; 6: 5/16" = 0.0 Submensible Pur TA FIELD Filtratic splaced) ing wet ice) FINAL pH	4" = 0.65; 104; 3/8" = 0 np; PP = Pr SAMPLING INITIATED A' FILTERED: Y on Equipment Ty DUPLICATE: INITEND ANALYSIS A METHO PAHS BTEX/ M	5" = 1.02; 1006; 1/2 eristaltic Puri T: \2S I pe: Y ED ND/OR E S S ITBE	6" = 1.47; "= 0.010; p: 0 = 0 SAMPLIN: ENDED / FILTER S N SAMPLING: CODE AQQ AQQ	12" = 5.88 5/6" = 0.016 ther (Specify) IG T: 255 IZE:um FLOW RAT (mL per minu 100 100
WELL CAP TUBING IN PURGING I SAMPLED NOAH E PUMP OR SAMPLE ID CODE MW VOR MW VOR WW VO	AGITY (Gelion SIDE DIA, CAI SQUIPMENT C SQUIPMENT C STY (PRINT) / A Sryant UPUBING NELL (feet): ONTAMINATIC LE CONTAINERS 1 3	s Per Foot): ACITY (Gal/ ACITY (Gal/ CODES: E SPEILIATION: AS&E () CC DN: PUN ER SPECIFIC: ACODE AG CG	0.75° = 0.02; FL): 1/8° = 0. = Bailer, MP Y (N ATION VOLUME 250 mL 40 mL	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S: TUBING MATERIAL C SAMPLI PRESERVAT USED H2SO4 HCI	1.25" = 0.00 = 0.0014; Pump: E SAMP SIGNATURE TUBING PRESERVA ADDE 	2"=0.11 14"=0.002 SP = Electric LING DA SP PE Y TION (Includ D IN FIELD (8: 3" = 0.37; 6: 5/16" = 0.0 Submensible Pur TA FIELD Filtratic splaced) ing wat ica) FINAL pH	4° = 0.65; 104; 3/8" = 0 np; PP = Pr SAMPLING INITIATED A' FILTERED: Y IN Equipment Ty DUPLICATE: INTEND ANALYSIS A METHC PAHS BTEX/ M	5" = 1.02; 1006; 1/2 eristaltic Purt T: \2S I (N) PPE: Y ED ND/OR E S S ITBE	6" = 1.47; " = 0.010; p: 0 = 0 SAMPLIN ENDED / FILTER S N SAMPLING CODE AQQ AQQ	12" = 5.88 5/6" = 0.016 ther (Specify) IG IZE:ит SAMPLE PUI FLOW RAT (mL per minu 100 100
WELL CAP TUBING IN PURGING I SAMPLED Noah E PUMP OR T DEPTH IN FIELD DEC SAMPLE ID CODE MUW 102- 4/5 102 REMARKS ORP=	AGITY (Galion SIDE DIA, CAI EQUIPMENT C EQUIPMENT C BY (PRINT) / A Syant TUBING WELL (feet) ONTAMINATIC LE CONTAINERS 1 3 3	s Per Fool): - ACITY (Gal/ CODES: E FFILIATION: AS&E UC-C DN: PUIN ER SPECIFIC. MATERIAL CODE AG CG S, Z	0.75" = 0.02; FL): 1/8" = 0. = Bailer; MP Y (NATION VOLUME 250 mL 40 mL	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLERIS MATERIAL C SAMPLI PRESERVAT USED H2SO4 HCI	1.25" = 0.0014: = 0.0014: Pump: E SAMP SIGNATURE DODE: HDF TUBING E PRESERVA TVE ADE	27 = 0.11 147 = 0.002 SP = Electric LING DA E Y Y TION (includ OTAL VOL D IN FIELD (i	s; 3" = 0.37; 6; 5/16" = 0.0 Submensible Pur NTA FIELD Filtratic splaced) ing wet loa) FINAL PH	4° = 0.65; 204; 3/8" = 0 np; PP = Pr SAMPLING INITIATED A' FILTERED: Y DUPLICATE: INTEND ANALYSIS A METHO PAHS BTEX/ M	5" = 1.02; 1006; 1/2 aristalitic Purr T: \2S I T: \2S I Pe: Y ED NND/OR ES ITBE	6" = 1.47; " = 0.010; ID: 0 = 0 SAMPLINE ENDED / FILTER S N SAMPLING GUIPMENT CODE ACCC	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE:
WELL CAP TUBING IN PURGING IN SAMPLED NOAD E PUMP OR SAMPLE ID CODE MUM VOC AV 10C AV 10C REMARKS ORP=	AGITY (Gallon SIDE DIA, CAI SQUIPMENT C SQUIPMENT C BY (PRINT) / A Sryant UBING NELL (feet): ONTAMINATIO LE CONTAINERS 1 3 	s Per Foot): ACITY (Gal / ACITY (Gal / ACITY (Gal / CODE: E FFILIATION: AS&E () C ON: PUR ER SPECIFIC AG CG S, AG = Amber	6.75° = 0.02; FL): 1/8° = 0. B = Bailer; AP Y (N ATION VOLUME 250 mL 40 mL	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S) SAMPLER(S) SAMPLI PRESERVAT USED H2SO4 HCI = Clear Glass;	1.25" = 0.00 = 0.0014; Pump: E SAMP SIGNATURE DODE: HDF TUBING E PRESERVA TVE ADE 	R 2" = 0.11 14" = 0.002 SP = Electric LING DA SP PE Y (Norther TION (nortud D IN FIELD () IN FIELD () High Density I	s; 3" = 0.37; 6; 516" = 0.1 Submensible Pur ATA FIELD Filtratic aplaced) ing wet ice) FINAL ML) FINAL PH Polyethylene;	4° = 0.65; 104; 38° = 0 np; PP = Pi SAMPLING INITIATED A' FILTERED: Y DUPLICATE: INTEND ANALYSIS A METHO PAHS BTEX/ M	5" = 1.02; 1006; 172 eristatic Pur T: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	6" = 1.47; "= 0.010; p: 0 = 0 SAMPLIN ENDED / FILTER S SAMPLING GODE A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A-22 A	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE: FLOW RAT (mL per min, 100 100
WELL CAP TUBING IN PURGING IN SAMPLED Noah E PUMP OR T DEPTH IN FIELD DEC SAMPLE D CODE SAMPLE D CODE M(W VO- 4/5 10/2 M(W VO- 4/5 10/2 REMARKS ORP= MATERIAL SAMPLING	AGITY (Galion SIDE DIA, CAI SQUIPMENT C SQUIPMENT C STY (PRINT) / A Sryant UPBING WELL (feet): ONTAMINATI(LE CONTAME 1 3 	s Per Foot): - ACITY (Gal / ACITY (Gal / CODES: E 	0.75" = 0.02; FL): 1/8" = 0. = Bailer, = Baile	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLER(S MATERIAL C SAMPLI PRESERVAT USED H2SO4 HCI = Clear Glass; 0 = Other (hrough) Perist	1.25" = 0.0014: = 0.0014: Pump: E SAMP SIGNATURE DOE: HDF SIGNATURE PRESERVA ADDE 	r 2" = 0.1 14" = 0.002 SP = Electric LING DA Control Contro Control Control Control Control Control C	8; 3" = 0.37; 6; 5/16" = 0.0 9; 5/16" = 0.1 Submensible Pur NTA FilELD- Filtratic FileLo splaced) FINAL PH	4" = 0.65; 104; 3/8" = 0 np; PP = P(SAMPLING INITIATED A' FILTERED: Y DUPLICATE: INTEND ANALYSIS A METHO PAHS BTEX/ M LDPE = Low Data	5" = 1.02; 1006; 1/2 eristalitic Puri T: \2S I Pe: Y ED ND/OR E S S ITBE ansity Polyetic SP = Electric	6" = 1.47; "= 0.010; p: 0 = 0 SAMPLING SAMPLING SOUPMENT CODE A-Q-Q A-Q-Q N Submersible	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE: SAMPLE PUI FLOW RAT (mL per minu 100 100
WELL CAP TUBING IN PURGING IN PURGING IN Noah E PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE MAN 107 KIS 107 REMARKS ORP= MATERIAL SAMPLING DTES: 1.	AGITY (Galion SIDE DIA, CAI SQUIPMENT C SQUIPMENT C SY (PRINT) / A STYANT TUSING ASTYANT CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINATIC CONTAMINATIC SCORES: SEQUIPMENT The above	s Per Foot): - ACITY (Gal J -ACITY (Gal J 	0.75" = 0.02; FL): 1/8" = 0. = Bailer; IBA Y (NATION VOLUME 250 mL 40 mL Glass; CG 1 T = Teflon; APP = After (T RPP = Reven stitute all of	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLERIS SAMPLERIS SAMPLERIS SAMPLI PRESERVAT USED H2SO4 HCI = Clear Glass; 0 = Other (hrough) Perist se Flow Perist the informal	1.25" = 0.0014: = 0.0014: Pump: E SAMP SIGNATURE ODE: HDF TUBING E PRESERVA TVE ADDE 	i 2" = 0.1 14" = 0.002 SP = Electric ING DA E Y E Y B B B B B B B B B B B B	8; 3" = 0.37; 9; 516" = 0.1 Submerable Pur TA FileLo splaced) rg wet ice) FINAL Pile Pile	4° = 0.65; 204; 3/8" = 0 np; PP = Pi SAMPLING INITIATED A' FILTERED: Y DUPLICATE: INTEND ANALYSIS A METHO PAHS BTEX/ M LDPE = Low Da er Pump; El Gravity Drain); C,	5" = 1.02; 1006; 172 172 172 1 T: 125 1 S S S S S S S S S S S S S	6" = 1.47; " = 0.010; ID: 0 = 0 SAMPLINE ENDED / FILTER S SAMPLING GUIPMENT CODE A-CC A-CC 	12" = 5.88 5/8" = 0.016 ther (Specify) IG IZE:
NELL CAP TUBING IN PURGING IN Noah E PUMP OR DEPTH IN FIELD DEC SAMPLE ID CODE VILL OC VILL OC VILL OC REMARKS ORP= MATERIAL SAMPLING DTES: 1. 2.	AGITY (Galion SIDE DIA, CAI SQUIPMENT C SQUIPMENT C SY (PRINT) / A STYANT TUSING BY (PRINT) / A STYANT CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMINATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININATION CONTAMININTIN' CONTAMIN	s Per Fool): - ACITY (Gal./ ACITY (Gal./ CODES: E FFILIATION: - AS&E 	0.75" = 0.02; FL): 1/8" = 0. = Bailer; IIII = Bailer; IIIII = Bailer; IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	1" = 0.04; 0006; 3/16' BP = Bladder I SAMPLERIS SAMPLERIS SAMPLIA PRESERVAT USED H2SO4 HCI = Clear Glass; 0 = Other (hrough) Perist the information F VARIATION 1	1.25" = 0.0014: = 0.0014: Pump: E SAMP SIGNATURE ODE: HDF TUBING E PRESERVA TVE ADDE 	Y = 0.1 IMY = 0.002 SP = Electric LING DA TON (includ OTAL VOL DIN FIELD (DIN FIELD (DIN FIELD (B = Bailer SM = Straw d by Chapter CONSECL + SSM = Straw	8; 3" = 0.37; 9; 516" = 0.1 Submarible Pur TA FileLo FileLo splaced) FileNAL mL) pH Polyethylene; PelBadd Wethod (Tubing ter 62-160, F.A FileNAL	4° = 0.65; 204; 3/8" = 0 np; PP = Pr SAMPLING INITIATED A' FILTERED: Y DUPLICATE: INTEND ANALYSIS A METHO PAHS BTEX/ M LDPE = Low De er Pump; El Gravity Drain): .C, (ISEE FS 2212)	5" = 1.02; 1006; 172 172 175 1 T: 125 1 F:	6" = 1.47; " = 0.010; ID: 0 = 0 SAMPLINE ENDED / FILTER S N SAMPLINE CODE A-CC A-CC A-CC Submentible r (Specify) B)	12" = 5,88 5/8" = 0.016 ther (Specify) IG IZE:

Form FD 9000-24: GROUNDWATER SAMPL

Is Specific Conductance with $\pm 5.0\%$ (10 units for all three readings)? (200 x .05=10)

Is Dissolved Oxygen ±2.0 $mg/L \text{ or } \pm 10\%$? Or compare with Table FS 2200-2

Is turbidity \leq 20 NTU; optionally ± 5 NTU or $\pm 10\%$?

-i-

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG SITE SITE NAME: BUSY BOY LOCATION: 16751 NE SR 65, Hosford, FL SAMPLE ID: Tw - 2 WELLNO: IW-2 DATE: 2 2118 PURGING DATA WELL TUBING 3 WELL SCREEN INTERVAL STATIC DEPTH 11, 3% PURGE PUMP TYPE PURGE PUMP TYPE DIAMETER (inches): WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY (only fill out if applicable) EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME gallons (only fill out if applicable) 35 gallons + (20014 gallons/foot X feet) + , Z gallons = , 25 gallons DEPTH IN WELL (feet): 265 FINAL PUMP OR TUBING PURGING PURGING TOTAL VOLUME ENDED AT: 1318 PURGED (gallons): , 75 INITIATED AT: (304 DEPTH IN WELL (feet): de.S DISSOLVED CUMB DEPTH COND. pH VOLUME PURGE OXYGEN VOLUME TO (circle units) TEMP. TURBIDITY COLOR ODOR TIME (standard (circle units) PURGED RATE PURGED WATER (°C) umhos/cm (NTUs) (describe) (describe) units) mg/L or (gallons) (galions) (gpm) (feet) or <u>µS/cm</u> % saturation 3.20 7.26 324 3.24 1309 ,30 30 .06 25.37 1.25 Cleak None 1312 .15 45 7.27 25.40 330 .05 13.64 3.29 Clear 1.20 None 1315 .15 60 05 14.01 7.26 25.43 331 1.08 263 Clear None 75 1450 28 25,47 1318 15 ,05 331 1.07 2.91 (100 Nove 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" = 5.88 TUBING INSIDE DIA. CAPACITY (Gall/FL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.016; 5/8" = 0.016; PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristatic Pump; O = Other (Specify) SAMPLING DATA SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING SAMPLING ENDEDAT: 1324 Noah Bryant AS&E INITIATED AT: 1320 12 TUBING FIELD-FILTERED: Y PUMP OR TUBING FILTER SIZE: _____µm 26.5 DEPTH IN WELL (feet): MATERIAL CODE: HDPE Filtration Equipment Type: FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N (pplaced) DUPLICATE: Y (N) SAMPLE CONTAINER SPECIFICATION SAMPLE PRESERVATION (including wet ice) INTENDED SAMPLING SAMPLE PUMP ANALYSIS AND/OR EQUIPMENT FLOW RATE RESERVATIVE SAMPLE # MATERIAL TOTAL VOL FINAL VOLUME ADDED IN FIELD (mL) METHOD CODE (mL per minute) CONTAINERS ID CODE CODE USED pH ARP JUS-2 AG 250 mL H2SO4 PAHS 100 1 CG HCI BTEX/ MTBE 100 T4-2 40 mL 3 ADD REMARKS 27.1 ORP= -MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; \$ = Silicone; T = Teflon; O = Other (Specify) SAMPLING EQUIPMENT CODES: APP = After (Through) Peristaltic Pump; B = Baller; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify) NOTES: 1. The above do not constitute all of the information required by Chapter 62-160, F.A.C. 2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)

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

NAME EQUISY BOY LOCATION TO/ST NE SR 65, Hostord, FL VELL NO: TWB - SR SAMPLE ID: TUBING DATE: 0 // 18 VELL NO: TWB - SR SAMPLE ID: TUBING DATE: 0 // 18 VIELL NO: TUBING TUBING SAMPLE ID: TUBING DATE: 0 // 18 VIELL NO: TUBING TUBING TUBING TUBING OR RALER: OR RALER: VIELL NO: TUBING TUBING TUBING TUBING TUBING OR RALER:
THE CALL CALL <thc< td=""></thc<>
FELL MARETER (inches): TUBING DUALETER (inches): TUBING DUALETER (inches): Well SCREEN INTERVAL DEPTH: 75 feet 0.3 D feet STATIC DEPTH TO WITER (inches): PURGE PUMP TODE OR BAILER PURGE PUMP TODE OR BAILER MARETER (inches): Mell Contal Well DEPTH: 75 feet 0.3 D feet TO WITER (inches): PURGE PUMP TODE galons feet galons galons feet galons galons feet feet galons feet galons feet galons feet galons feet feet f
SQUIPMEENT VOLUME PURGE: 1 EQUIPMENT VOL = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME purchases gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, gallonsfoot X, 3, 4, feet) + , 2, gallons = , 5, gallons + (, CO(4, feet) + , 1, feet) + , 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1
NITIAL PUMP OR TUBING 7.5 FINAL PUMP OR TUBING 7.5 PURGING 7.3 PURGING 1.33 PURGING 1.45 TOTAL VOLUME PURGE (galons): .55 TIME VOLUME CUMUL PURGED PURGED PURGED (galons): .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55 .55
TIME VOLUME (gallons) CUMUL VOLUME (gallons) PURGE (gallons) DEPTH (gallons) pH (tstandard units) TEMP. (°C) COND. (price units) (price units) Dissolver (or units) (price units) TURBIDITY (or units) COLOR (describe) ODOR (describe) 334 .35 .35 .05 i/.05 i/.05 .01 .25.45 .36 0.47 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44 .4.44
339 .25 .95 105 7.71 25.85 3.64 0.47 4.44 Quar Nove 342 .16 .40 .05 [(.25 7.71 25.46 3.64 0.43 4.53 Quar Nove 1345 .15 .55 .05 [1.25 7.71 3.69 0.36 4.53 Quar Nove 1345 .15 .55 .05 [1.25 7.71 3.69 0.32 4.70 Quar Nove 1345 .15 .55 .05 [1.25 7.71 3.69 0.32 4.70 Quar Nove 1345 .15 .55 .05 [1.25 7.71 3.69 0.32 4.72 Quar Nove 1345 .15 .55 .05 [1.25 7.71 3.69 0.32 4.78 0.32 4.78 0.22 4.78 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0
342 .15 .940 .05 [(.25 .21 25.40 .364 0.38 4.53 Crew Note 1345 .15 .55 .05 [1.25 .21 .25.77 .389 0.36 4.53 Crew Note 1345 .15 .55 .05 [1.25 .21 .25.77 .389 0.36 4.53 Crew Note 1345 .15 .55 .05 [1.25 .21 .25.77 .389 0.36 4.70 Clew Note 1345 .15 .55 .05 [1.25 .21 .25.77 .389 0.36 4.70 Clew Note 1345 .15 .55 .05 [1.25 .21 .25 .26 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .21 .
1.5*15 1.5 1.5 1.25 7.71 35.77 35.9 0.32 41.70 C.(
NELL CAPACITY (Gallons Per Ford): 0.75" = 0.02: 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.66; 5" = 1.02; 6" = 1.47; 12" = 5.86 UBING INSIDE DIA. CAPACITY (Gallons Per Ford): 0.75" = 0.02: 1" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.66; 5" = 1.02; 6" = 1.47; 12" = 5.86 UBING INSIDE DIA. CAPACITY (GalLFL): 1/8" = 0.0014; 1/4" = 0.0024; 5/16" = 0.004; 3/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016; 5/8" = 0.016; 1/2" = 0.016;
NELL CAPACITY (Galons Per Ford): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.665; 5" = 1.02; 6" = 1.47; 12" = 5.88 UBING INSIDE DIA, CAPACITY (GalUFL): 1/4" = 0.006; 2" = 0.16; 3" = 0.37; 4" = 0.665; 5" = 1.02; 6" = 1.47; 12" = 5.88 URING INSIDE DIA, CAPACITY (GaLUFL): 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/6" = 0.016; URING INSIDE DIA, CAPACITY (GALUFL): 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/6" = 0.016; URING INSIDE DIA, CAPACITY (GALUFL): 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.016; 5/6" = 0.016; URING INSIDE DIA, CAPACITY (GALUFL): B = Balactr BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristalitic Pump; 0 = Other (Specify) SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING INTATED AT: ISA" SAMPLING ENDED AT: ISA" SA
NELL CAPACITY (Gallons Per Ford): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.66; 5" = 1.02; 6" = 1.47; 12" = 5.88 URGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristalic Pump; O = Other (Specify) SAMPLING DATA Noah Bryant AS&E TUBING MATURE(S): YUMP OR TUBING YUMP Y YUMP Y YUMP Y TUBING Y MITERIAL CODE: HDPE FILTER SIZE:
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" = 5.88 UBING INSIDE DIA. CAPACITY (Gall-PL): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0020; 5/16" = 0.0016; 3/16" = 0.006; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/2" = 0.010; 5/8" = 0.0106; 1/4" = 0.0220; 5/16" = 0.004; 1/4" = 0.0220; 5/16" = 0.004; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.010; 5/8" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016; 1/2" = 0.016;
WELL CAPACITY (Galloris Per Food): 0.75 * = 0.02; 1* = 0.04; 1.25 * = 0.05; 2* = 0.16; 3* = 0.06; 5* = 1.02; 6* = 1.47; 12* = 5.86 PURING INSIDE DIA. CAPACITY (Gall-FL): 148* = 0.0006; 148* = 0.002; 138* = 0.006; 148* = 0.002; 5*** = 0.016; PURGING EQUIPMENT CODES: B = Bialder BP = Biadder Pump; ESP = Electric Submersible Pump; PP = Peristatic Pump; 0 = Other (Specify) SAMPLED BY (PRINT) / AFFILIATION: Noah Bryant AS&E SAMPLERS(S) SIGNATURE(S): SAMPLING SAMPLING SAMPLING VUMP OR TUBING Q
PURGING EQUIPMENT CODES: B = Bailest; BP = Biadder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; O = Other (Specify) SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLER(S) SIGNATURE(S): SAMPLING INTHATED AT: \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
SAMPLED BY (PRINT) / AFFILIATION: SAMPLER(S) SIGNATURE(S): SAMPLING INITIATED AT: 1347 SAMPLING ENDED AT: 1351 Noah Bryant AS&E INITIATED AT: 1347 SAMPLING ENDED AT: 1351 PUMP OR TUBING SEPTH IN WELL (feed): 27.5 TUBING MATERIAL CODE: HDPE FIELD-FILTERED: Y FILTER SIZE: FILTER SIZE: IELD DECONTAMINATION: PUMP Y N TUBING Y N/replaced) DUPLICATE: Y
TUBING TUBING TUBING FIELD-FILTERED: Y FILTER SIZE:ITT TELD DECONTAMINATION: PUMP Y Y TUBING Y Filtration Equipment Type:
TEPTH IN WELL (read): C (1 - 3 MATERIAL CODE: HDPE Filtration Equipment Type:
SAMPLE CONTAINER SPECIFICATION SAMPLE PRESERVATION (including wet inc) INTENDED SAMPLE CLIMP
SAMPLE * MATERIAL VOLUME PRESERVATIVE TOTAL VOL FINAL ANALYSIS AND/OR EQUIPENT FLOW RATE D CODE CONTAINERS MATERIAL VOLUME USED ADDED IN FIELD (mL) pH MALYSIS AND/OR EQUIPENT FLOW RATE
tuse 1 AG 250 mL H2SO4 PAHS ARC 100
ILU SR 3 CG 40 mL HCI BTEX/ MTBE ARD 100
IEMARKS: DRP= -43.9
ATERIAL CODES: AG = Amber Glass; CG = Clear Glass; HDPE = High Density Polyethylene; LDPE = Low Density Polyethylene; PP = Polypropylene; S = Stronger, T = Tellow; O = Other (Seartify)
SAMPLING EQUIPMENT CODES: APP = After (Through) Peristatic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PEDE = Paures Elever Paristatic Pump; SM = Straw Method (Toking Gravity Insist): P = Direct (Sachter)

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

.25 x 3=0.75





Collected samples must remain in the custody of the sampler until the samples are relinquished to another party

• Sample times should match GW Sample log and log book



Chain of Custody

Compare information with Groundwater Sampling Log, Sampling Data section

						Tampa:	9610 Prin	cess Pain	i Ave. • Ta	ampa, FL	33619 •		1.2-1-11			
lient Name:	Applied Science & Engineerin	g Project	Nam	e: BUS	Y BOY			Size	Vials	Ambe					11	1
Address:	550 N Reo Street, Suite 105	P.O. Number	r/Project I	Number: 105	39 B18FD5 T	ask 4		PULLE	to mL	250 ml						BER
	Tampa, FL 33609	Project Local	tion													- 3
Phone:	813-207-5099	813-207-5099 FDEP Facility No: 8510628						Ĩ								Z
MX:	Project Name and Acturess								ш		A					9
Centact	Stacy Schaible	Stacy Schaible						S R	E E		4s					LY N
Sampled By: WOC	th beyont							Y.SI	N t		-					ATO
Turn Around Tima 凶	STANDARD LI RUSH	Special	Inst	ructions	s: Ja P	rofile: 2	29728	AAL	Ě	AHS	25					R/
Page	of	ADal	PTL	L EQuis				R	'n	à	*		_	-	\vdash	AB(
SAMPLE ID	SAMPLE DESCRIPTION	4	Grab Comp	DATE	TIME	MATRIX	NO. COUNT	PRESER	HCL	koe						2
MW-10R		0	G	2 21	150	GW	Y		X	X						101
MVV-15			1	(152	GW	5		X	X	X					102
MW-17R					1415	GW	4		Х	X						073
MW-19RR			Τ		1443	GW	4		Х	X						094
IW-2			1	11.	1320	GW	ü		X	X						00.5
IW-5R			Y	V	1347	GW	4		X	X						100
														1		
														1		-
rix Code: WW = wa	stewater SW = surface water GW = groun	d water DW =	drinking	g water O	= cil A = :	air 30 = s	oil SL=s	ludge	Pres	ervation	Code: 1=	ice H=(HC) S = (H2SC	14) N = (H	N03) T = (Sc	dium Thiosulf
eceived on Ice	Yes No Temp taken from same	le 🗌 Te	emp from	m blank				Where	auired,	pH check	ved	Temperatu	ine when rec	eived	4(in de	grees celcius)
ICN: AD-051 Form	last revised 08/18/2014			Device	used for m	casuring Te	imp by uniq	ue identif	ier (circle I	R temp g	un used)	(1: 5A) G:	LT-1 LT-2	T: 10A	A: SA M: S	A S: 1V
Relin	iquished by: Date Time	0.	Rece	eived by.		Date	Time		FO	R DRI	NKING	WATER	USE:			
1 11	2/23 1305	Stephe	weg	1		123/18	1305		(When PV	/S Informat	tion not othe	irwise supplier	 PWS ID: 			
2									Contac	t Person;				Phone :		
3									Supplier	of Water	r					



Questions?

Contact: Jamie Lopez – Team 4 850-245-8925 Jamie.L.Lopez@dep.state.fl.us

