

19321 U.S. Highway 19 North, Building C, Suite 200 Clearwater, Florida 33764 PH 813.792.4820 www.geosyntec.com

1 June 2021

Mr. Robert Cilek Florida Department of Environmental Protection 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Subject: Trip Report – Monitoring Well Installation and Investigation-Derived Waste

Disposal – May 2021

Former Florida State Fire College

1501 W Silver Springs Blvd, Ocala, Marion County, Florida

ERIC_5641

FDEP Contract HW550, Task Assignment SOL-0A118, Subtasks 4 and 6

Dear Mr. Cilek,

Geosyntec Consultants, Inc. (Geosyntec) has prepared this Trip Report summarizing the installation of monitoring wells using the rotosonic drilling method at the Former Florida State Fire College (FFSFC) located in Ocala, Florida. The objective of this investigation was to assess the extent of groundwater that was previously documented to be affected with per- and polyfluoroalkyl substances. This Trip Report also summarizes the transportation and disposal of investigation-derived waste (IDW). Geosyntec completed activities under Task Assignment SOL-0A118.

Between 17 May and 27 May 2021, Geosyntec completed the following activities at FFSFC:

- Observed a private utility locate to identify any potential subsurface utilities or obstructions;
- Established the staging area at FFSFC for equipment, materials, and IDW;
- Observed the construction of the decontamination pit that was used throughout well installation activities;
- Observed the installation of 8 monitoring wells (DEPMW-1 through DEPMW-8) for the investigation of PFAS-impacted groundwater associated with FFSFC (1 well screened from 20 to 40 feet below land surface [ft BLS], 3 wells screened from 25 to 45 ft BLS, and 4 wells screened from 100 to 120 ft BLS);
- Collected core samples for lithologic description at 4 well cluster locations;
- Collected two equipment blanks (EQB-40 and EQB-41) and one field reagent blank (FRB-7);



- Staged forty-eight (48) 55-gallon drums containing soil and liquid investigation derived waste in the designated area; and
- Observed the removal of the forty-eight (48) 55-gallon drums of IDW by the waste hauler.

The monitoring well locations with updated Global Positioning System coordinates are depicted on **Figure 1**. Field notes are included in **Attachment A**, and a photographic log documenting representative field activities is included in **Attachment B**. The non-hazardous waste manifest is included in **Attachment C**. A final waste manifest signed by the designated facility owner will be forwarded upon receipt.

If you have any questions or comments, or require additional information, please contact Eric Sager at 727-330-9952.

Sincerely,

Boone Abbott, G.I.T. (AL)

Senior Staff Geologist

Eric Sager, P.G. (FL)

Senrior Principal Geologist

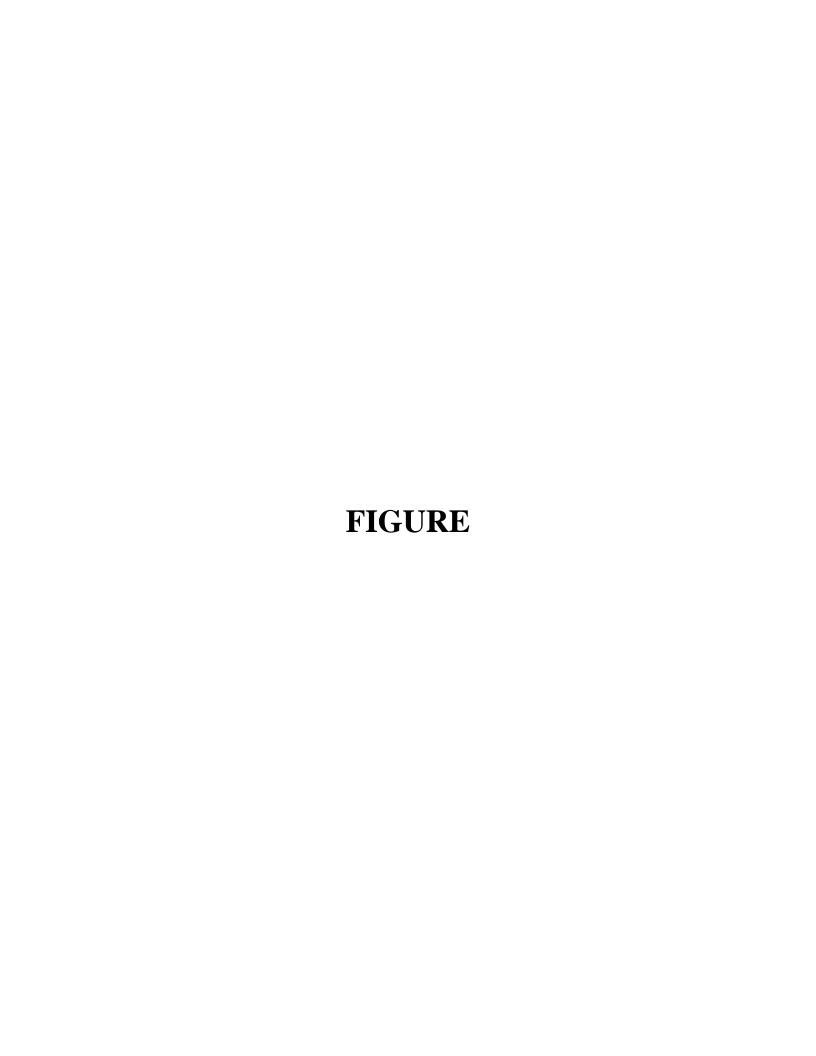
Copy: David Meyers, Florida Department of Environmental Protection

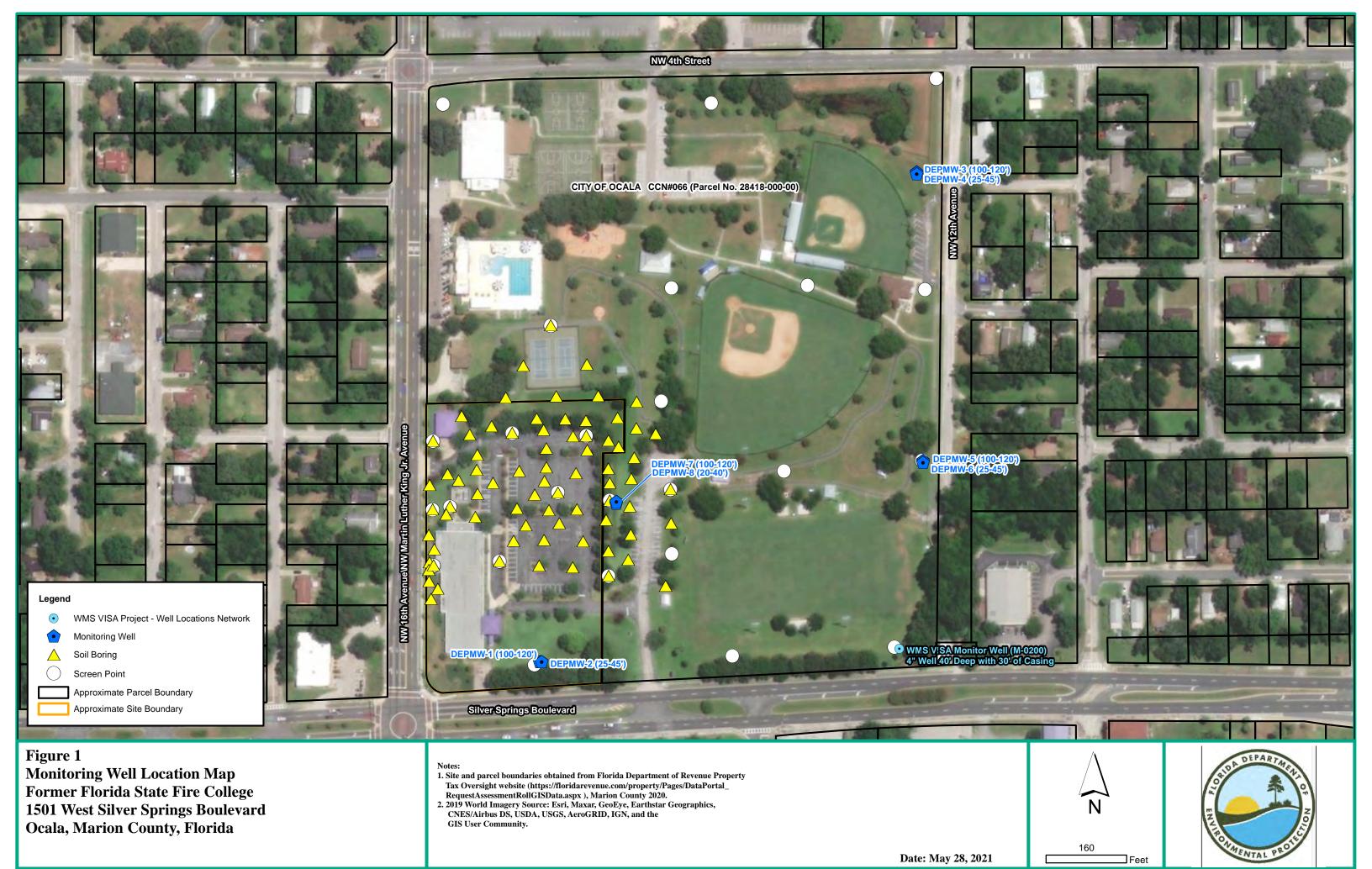
Todd Kafka, Geosyntec

Attachments: Figure

Attachment A – Field Forms

Attachment B – Photographic Log





ATTACHMENT A Field Notes

Date	5-17-21
Site	ame: Former FSFC
Wea	er (temperature/precipitation): Sunny 85
Plea	check all boxes that apply and describe any exceptions in the notes section below with QA/QC methods used to assess potential sample cross-contamination as a result.
Field	Clothing and PPE:
the Company of the Co	No water- or stain-resistant boots or clothing (e.g., GORE-TEX®) Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber Clothing has not been recently laundered with a fabric softener No coated HDPE suits (e.g., coated Tyvek® suits) Field crew has not used cosmetics, moisturizers, or other related products today Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free
Field	Equipment:
8 1 1 1	Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass Sample caps are made of HDPE or polypropylene and are not lined with Teflon TM No materials containing Teflon TM , Viton TM , or fluoropolymers No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags) No plastic clipboards, binders, or spiral hard cover notebooks No waterproof field books No waterproof or felt pens or markers (e.g., certain Sharpie® products) No chemical (blue) ice, unless it is contained in a sealed bag No aluminum foil No sticky notes (e.g., certain Post-It® products)
Dec	ntamination:
	Reusable field equipment (e.g., dip sampler) decontaminated prior to reuse "PFAS-free" water is on-site for decontamination of field equipment Alconox®, Liquinox® or Luminox® used as decontamination detergent

Food and Drink:
No food or drink on-site, except within staging area Food in staging area is contained in HDPE or stainless steel container
Notes:
water proof boots worn SOPs modified to no water proof boots lardboots during sediment a surface
water proof boots worn, soPs modified to no water proof boots law boots during sediment & surface water growth boots law boots during sediment & surface
Field Team Leader Name (Print): Book Abbott
Field Team Leader Signature:
Date/Time: 5-1721 1134

Date: 5.18-21
Site Name: Former FSFC
Weather (temperature/precipitation): Suny 85°
Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result
Field Clothing and PPE:
No water- or stain-resistant boots or clothing (e.g., GORE-TEX®) Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber Clothing has not been recently laundered with a fabric softener No coated HDPE suits (e.g., coated Tyvek® suits) Field crew has not used cosmetics, moisturizers, or other related products today Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free
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Decontamination:
Reusable field equipment (e.g., dip sampler) decontaminated prior to reuse "PFAS-free" water is on-site for decontamination of field equipment Alconox®, Liquinox® or Luminox® used as decontamination detergent

Food and Drink:
No food or drink on-site, except within staging area
Food in staging area is contained in HDPE or stainless steel container
Notes:
water proof boots worn without overboots
Soft modified to no valor poset boots or overboots worm only during sediment tourface valor scompling
¥
Field Team Leader Name (Print): Boon Albott
Field Team Leader Signature:
Date/Time: 5-18-21 0710

Date	: 5-19-21
Site	Name: Former FSFC
Wea	ther (temperature/precipitation): Svany 84
Plea	se check all boxes that apply and describe any exceptions in the notes section below g with QA/QC methods used to assess potential sample cross-contamination as a result.
Field	Clothing and PPE:
sediment control contr	No water- or stain-resistant boots or clothing (e.g., GORE-TEX®) Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber Clothing has not been recently laundered with a fabric softener No coated HDPE suits (e.g., coated Tyvek® suits) Field crew has not used cosmetics, moisturizers, or other related products today Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free
Field	Equipment:
	No materials containing Teflon TM , Viton TM , or fluoropolymers No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags) No plastic clipboards, binders, or spiral hard cover notebooks
Dece	ontamination:
6 C	Reusable field equipment (e.g., dip sampler) decontaminated prior to reuse "PFAS-free" water is on-site for decontamination of field equipment Alconox®, Liquinox® or Luminox® used as decontamination detergent

Food and Drink:	
No food or drink on-site, except within staging area	
Food in staging area is contained in HDPE or stainless steel conta	iner
Notes:	
Valeproof boots van without overboots	
SNO 1811	ate le a to commall
Softs modified to no materproof boots norm or overboots during surface mater	AZCOLWAN ZOWANA
Field Team Leader Name (Print): Boom About	
Field Team Leader Signature:	
Date/Time: 5-19-21 0713	
Date/Time: 7 / 1 6 / 1 / 1 5	

Date:	2-79-71
Site Na	ame: Former FSFC
Weathe	er (temperature/precipitation): Sunny 84°
	check all boxes that apply and describe any exceptions in the notes section below with QA/QC methods used to assess potential sample cross-contamination as a result.
Field C	Clothing and PPE:
+ sednot (1)	No water- or stain-resistant boots or clothing (e.g., GORE-TEX®)
apply 6	Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather
₫,	Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
d,	Clothing has not been recently laundered with a fabric softener
4	No coated HDPE suits (e.g., coated Tyvek® suits)
4/	Field crew has not used cosmetics, moisturizers, or other related products today
	Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free
Field E	Equipment:
	Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
\mathbb{Z}_{ℓ}	Sample caps are made of HDPE or polypropylene and are not lined with Teflon TM No materials containing Teflon TM , Viton TM , or fluoropolymers
	No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
/	No plastic clipboards, binders, or spiral hard cover notebooks
/	No waterproof field books
/	No waterproof or felt pens or markers (e.g., certain Sharpie® products)
	No chemical (blue) ice, unless it is contained in a sealed bag
1	No aluminum foil
	No sticky notes (e.g., certain Post-It® products)
Decont	tamination:
	Reusable field equipment (e.g., dip sampler) decontaminated prior to reuse
$\overline{\mathbb{Z}}$	"PFAS-free" water is on-site for decontamination of field equipment
	Alconox®, Liquinox® or Luminox® used as decontamination detergent

food and Drink:	
☑/No food or drink on-site, except within staging area	
Food in staging area is contained in HDPE or stainless steel container	
Notes:	
Waterproof boots worn with no overbouts	
SOPs matified for boots loorboots to include only surface men readment sampling	
Field Team Leader Name (Print): Book Albert	
Field Team Leader Signature:	
Date/Time: 5-20-21 0720	

Date: 5-21-21	
Site Name: Former FSFC	
Weather (temperature/precipitation):	86°
Please check all boxes that apply and descri	be any exceptions in the notes section below ootential sample cross-contamination as a result.
Field Clothing and PPE:	
Rain gear are made of polyurethane, P Clothing has not been recently launder No coated HDPE suits (e.g., coated Ty Field crew has not used cosmetics, mo	polyurethane, PVC, rubber, or untreated leather VC, vinyl, wax-coated or rubber ed with a fabric softener
Field Equipment:	
polypropylene, silicone, acetate or stai Sample caps are made of HDPE or pol No materials containing Teflon TM , Vite	ypropylene and are not lined with Teflon TM on TM , or fluoropolymers et contact with the sample (e.g., LDPE tubing, I hard cover notebooks (e.g., certain Sharpie® products) tained in a sealed bag
Decontamination:	
Reusable field equipment (e.g., dip sar "PFAS-free" water is on-site for decor Alconox®, Liquinox® or Luminox® or	tamination of field equipment

Food and Drink:	
, No food or drink on-site, except within stag	ring area
No food or drink on-site, except within stag Food in staging area is contained in HDPE	or stainless steel container
NY /	, and
Notes:	
Walapast boots were w/o evaposts	
SDPS modified to only wear everbouts /non-water proof b	pouts during sediment "Surface water sampling
	0
Field Team Leader Name (Print): Book Abbott	
Field Toom Loader Signature CMM AR	
Field Team Leader Signature:	
Date/Time: 5-21-21 0734	

Date: 5-24-21
Site Name: Former Florida Stale Fire College
Weather (temperature/precipitation): Sunny 91°F
Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.
Field Clothing and PPE:
No water- or stain-resistant boots or clothing (e.g., GORE-TEX®)
Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather
Z, Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber
Clothing has not been recently laundered with a fabric softener
☑/No coated HDPE suits (e.g., coated Tyvek® suits)
Field crew has not used cosmetics, moisturizers, or other related products today
Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free
Field Equipment:
Sample containers and equipment in direct contact with the sample are made of HDPE, polypropylene, silicone, acetate or stainless steel, not LDPE or glass
Sample caps are made of HDPE or polypropylene and are not lined with Teflon TM No materials containing Teflon TM , Viton TM , or fluoropolymers
No materials containing LDPE in direct contact with the sample (e.g., LDPE tubing, Ziploc® bags)
No plastic clipboards, binders, or spiral hard cover notebooks
No waterproof field books
No waterproof or felt pens or markers (e.g., certain Sharpie® products)
No chemical (blue) ice, unless it is contained in a sealed bag
No aluminum foil
No sticky notes (e.g., certain Post-It® products)
Decontamination:
Reusable field equipment (e.g., dip sampler) decontaminated prior to reuse
/ "PFAS-free" water is on-site for decontamination of field equipment
Alconox®, Liquinox® or Luminox® used as decontamination detergent

Food and Drink:	
No food or drink on-site, except within staging area Food in staging area is contained in HDPE or stainless steel container	
Notes:	
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SOPs modified to any need overboots for sediment resortance maker sampling	
Field Team Leader Name (Print): Boone Abbott	
Field Team Leader Signature:	
Date/Time: 5-24-21 1102	

Date: 5-25-21
Site Name: Former Floridy State Fre College
Site Name: Former Florida State Fre College Weather (temperature/precipitation): Svnny 93°F
Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.
Field Clothing and PPE:
No water- or stain-resistant boots or clothing (e.g., GORE-TEX®) Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber Clothing has not been recently laundered with a fabric softener No coated HDPE suits (e.g., coated Tyvek® suits) Field crew has not used cosmetics, moisturizers, or other related products today Field crew has not used sunscreen or insect repellants today, other than products
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Food and Drink:							
No food or drink on-site, except within staging area Food in staging area is contained in HDPE or stainless steel container Notes:							
Unterproof boots were with no everboots	-						
SOPs modified to only new overboots/non-Laterprodu	f boots during sediment & surfuce nater sampling						
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0 411 15							
Field Team Leader Name (Print): Bown Woot							
Field Team Leader Signature:							
Date/Time: 5-25-21 0718							

	Date: 5-26-21
	Site Name: Former Florida Stule Fire College
	Site Name: Former Florida State Rive College Weather (temperature/precipitation): Sunny 95°F
	Please check all boxes that apply and describe any exceptions in the notes section below along with QA/QC methods used to assess potential sample cross-contamination as a result.
	Field Clothing and PPE:
No sedime surfacements sumpling	No water- or stain-resistant boots or clothing (e.g., GORE-TEX®) Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber Clothing has not been recently laundered with a fabric softener No coated HDPE suits (e.g., coated Tyvek® suits) Field crew has not used cosmetics, moisturizers, or other related products today Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free
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	Decontamination:
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Food and Drink:	
No food or drink on-site, except within staging area	ng area is contained in HDPE or stainless steel container
Food in staging area is contained in HDPE or stainless steel container	
Notes:	
Valorproof boots with no overbouts non	
SOPs notified to only new archests/non-merpost day sediments surfue make	r sumpliar
Ti 11 Ti 1 Ti 1 Ti 1 Ti 1 Ti 1 Ti 1 Ti	
Field Team Leader Name (Print): Book Abbot	
Field Team Leader Signature:	
Date/Time: 5-26-21 0844	

	te: $5-27-21$
Sit	e Name: Tomer 1-10 du State Mre Lotrye
We	eather (temperature/precipitation): Smy 91°F
Ple	ase check all boxes that apply and describe any exceptions in the notes section below ng with QA/QC methods used to assess potential sample cross-contamination as a result.
	ld Clothing and PPE:
provide arounder	No water- or stain-resistant boots or clothing (e.g., GORE-TEX®) Field boots (or overboots) are made of polyurethane, PVC, rubber, or untreated leather Rain gear are made of polyurethane, PVC, vinyl, wax-coated or rubber Clothing has not been recently laundered with a fabric softener No coated HDPE suits (e.g., coated Tyvek® suits) Field crew has not used cosmetics, moisturizers, or other related products today Field crew has not used sunscreen or insect repellants today, other than products approved as PFAS-free
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Food and Drink:	
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Food in staging area is contained in HDPE or stainless ste	el container
Notes:	
No arrbots/non-waterproof boots win	
SOPS madified to only near aerboots Inon-materproof boots during	ng sediment or surface water sunding
Field Team Leader Name (Print): Boone Asbott	
~ 200	<u> </u>
Field Team Leader Signature:	
Date/Time: 5-27-21 0835	

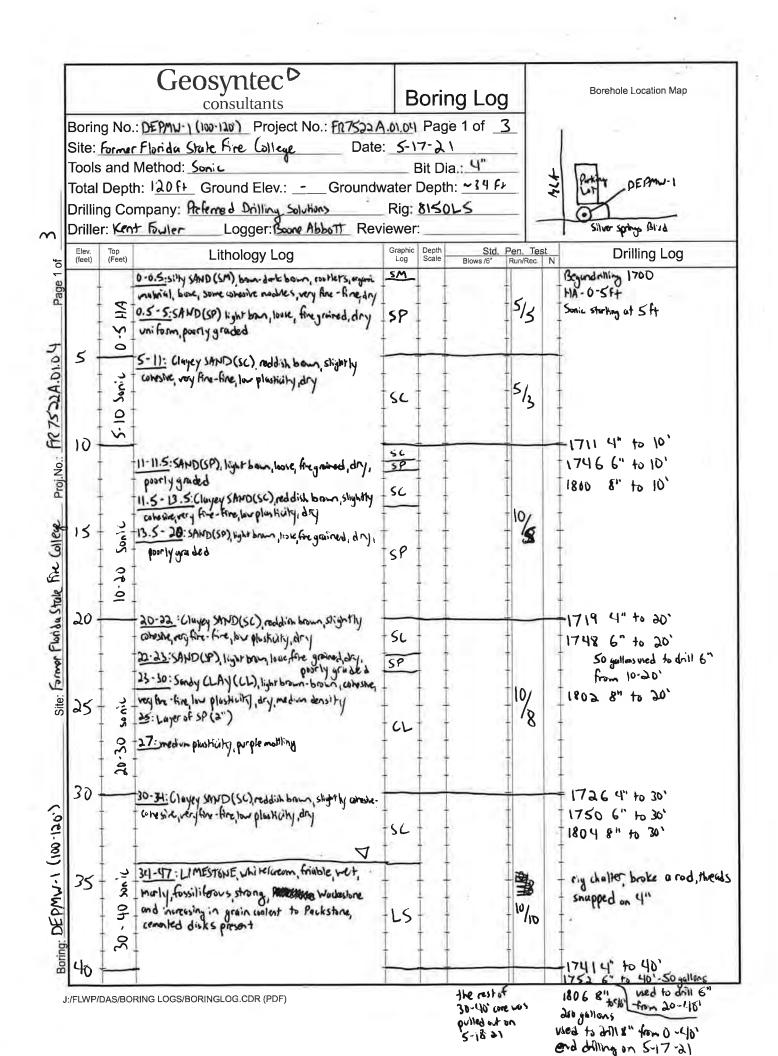
Table 1: Proposed Sampling Locations, Matrices, Analytes, Rationale, and Criteria Former Florida State Fire College

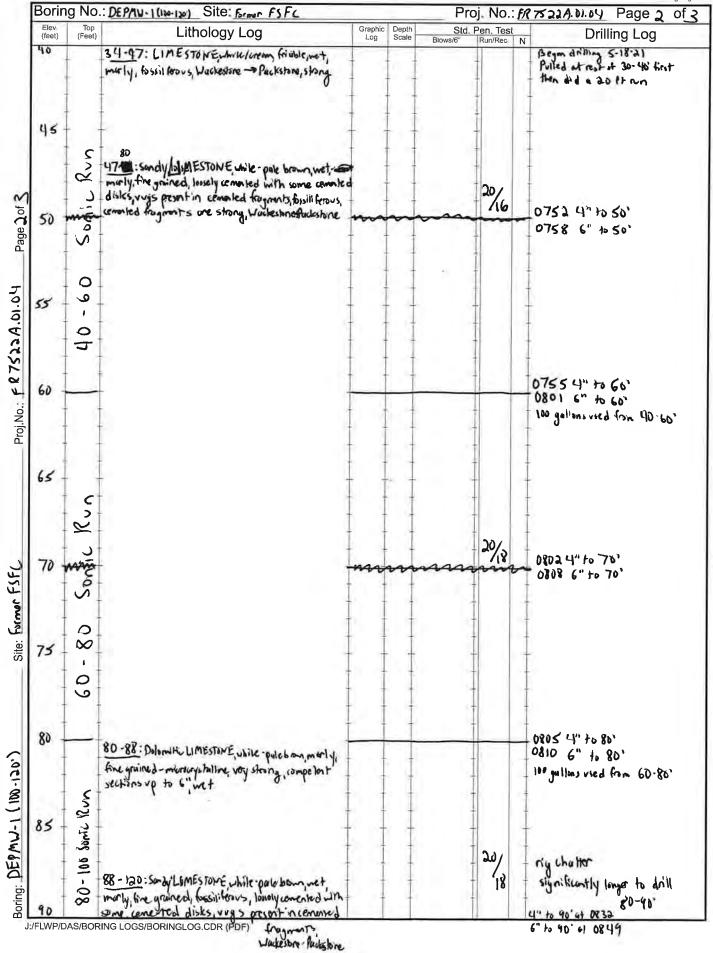
Location ID	Sample ID	Date and Time	Matrix	Depth (ft BLS)	Drilling Method	Comments	
Sample Type	Sample 1D	Laboratory Quality Assuran	Matrix	Equipment			
	EQB-21	3-23-21 1410				Boring after: 59-14 (35-34*) Container ID: 00 1036 65:113	
	EQB-22	3-24-21 0835		DPT Groundwater Sampling Equipment		Horizon haffans: &h. 14s 1911 -fr 15	
	EQB-23	3-29-21 1945			Container ID Cont		
	EQB-24	3-30-21 1405			Serial Property Serial Pro		
	EQB-25	3-71-21 1347			Boring before \$ P - 22 (96 56) Boring after: \$ P - 17 (36 96) Container ID 000352 000389		
	EQB-26	4-2-21 0916			Boring after: 5P 20 (46 56)		
	EQB-27	4-5-21 1541				Borng after: 59-14(36-46)	
	EQB-28	4-6-21 1308			Horing after: SP -18(96 50) Boring after: SP -16(36 90) Container ID 600214 000328		
	EQB-29	3-22-21 1355		Soil Sampling Equipment Hand Auger	Boring after: Sp. 57 (0-0-5)		
- [EQB-30	3-23-21 0910				Boring after SB-8(2-4)	
Equipment Blanks	EQB-31	3-23-21 1100	Water			Boring before 5B -10 (4 -6)	
(ratio of 1:10)	EQB-32	323211510			Equipment	Boring after SB - G7 (9-6) Boring after SB - G7 (9-6) Boring after SB - G8 (9-6) Container ID - G8 (9-6) Boring after SB - G7 (9-6)	
	EQB-33	3-24-211030				Horme offer and	
	EQB-34	3-24-21 1035				Container ID: 5.0 16 16 Boring after: 5.8 70 (1-4) Boring after: 5.8 70 (1-4) Container ID: 5.0 16	
	EQB-35	3-24-21 1150				Boring before \$6.70 (6.5.5) Boring after \$8.6 q (0.5.5) Container ID: On 10 q (0.5.5) Boring before \$6.70 (3.4) Boring after \$6.70 (3.4)	
	EQB-36	3-24-21 1155				Boring after: \$6 - 70 (3 - 4) Boring after: \$6 - 64 (3 - 4) Container ID: 70 20 6 (3 - 4)	
	EQB-37	3-24-21 0838		Soil Sampling Equipmen		Bonng before Sp. 48 (5-10') Bonng before Sp. 48 (5-10') Bonning after: 5 B-45 (5-10')	
	EQB-38	3-2421 0840			Equipment T	Container ID: 60 10 5 Boring after: 56 45 (10-15') Container ID: 601195	
	EQB-39	3-2421 1230				Container ID: 651 10 5 (10 35') Benng after: 55 - 73 (10 - 15') Container ID: 600366	
	EQB-40	5-19-21 1236		MW Installation Equipment	allation	Boring after: DEPAN - 3 (100-120') Container ID: 00 0000	
	EQB-41	5-24-21 1206			nent	Container ID: 00 0006 Bering before persons 5 (100-120) Bering after: persons 5 (100-120) Container ID: 000 27 2	
	EQB-42			Submersib	le Pump	Boring after: Container ID:	
	FRB-4	3-34-21 1011		DPT Grou Sampl		001062	
	FRB-5			Groundwater			
Field Reagent Blanks	FRB-6	3-2421 0900		HA -DP		001105,001062	
	FRB-7	5-19-21 1240				WA DE	white .
	FRB-8			Extr	a		
Drum Number	Sample ID	IDW S	Matrix	IDW Se	urre.	Analyses	
ar and a minute	IDW-Soil-202103		Soil	Soil cut		X	
	IDW-Water-202103		Water	Decontamin purge v		PFAS, VOCs, SVOCs, 8 RCRA Metals	

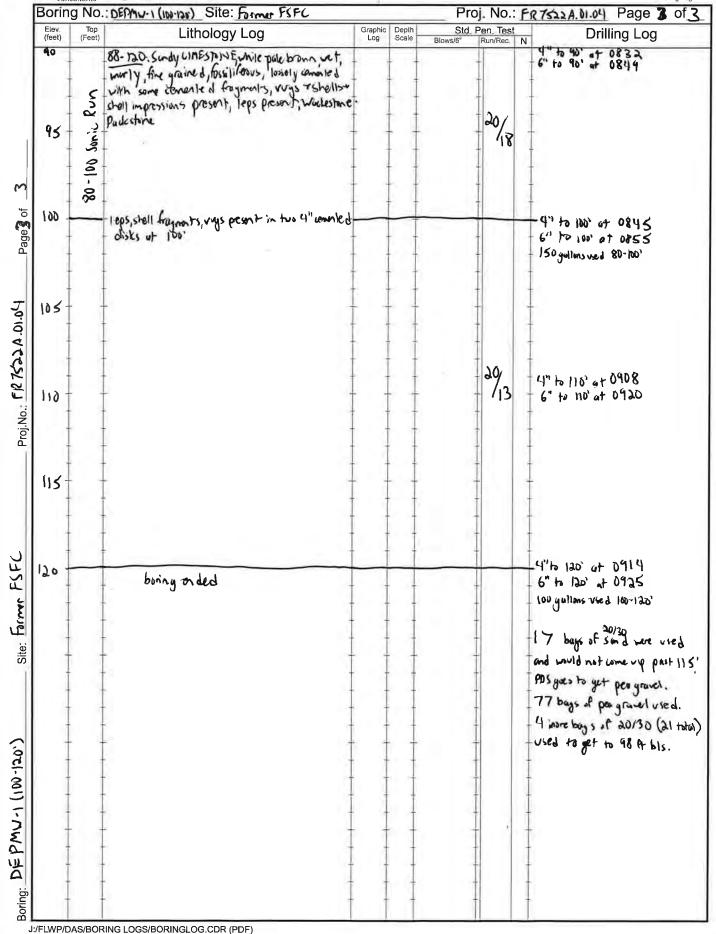
- Notes:

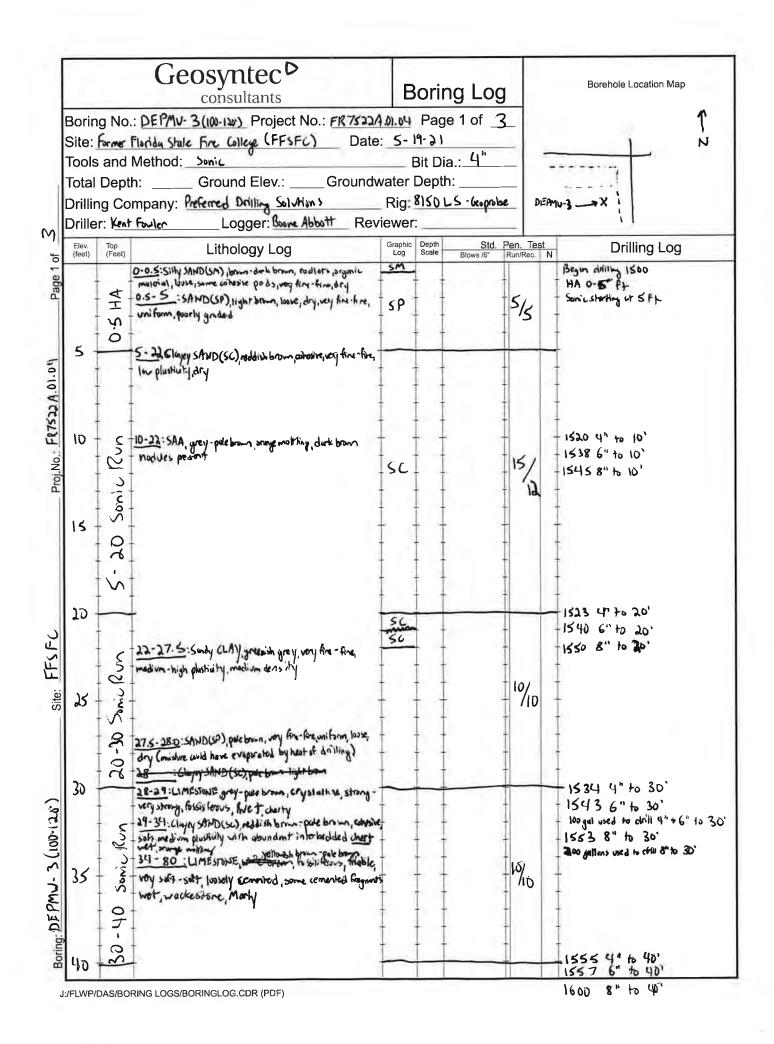
 1 DPT indicates direct push technology
 2 ft BLS indicates feet below land surface
 3 SB indicates soil boring
 4 HA indicates hand auger.
 5 PFAS indicates per- and polyfluoroalkyl substances
 6 N/A indicates and applicable.
 7 EQB indicates equipment blank
 8 SP indicates screen point.

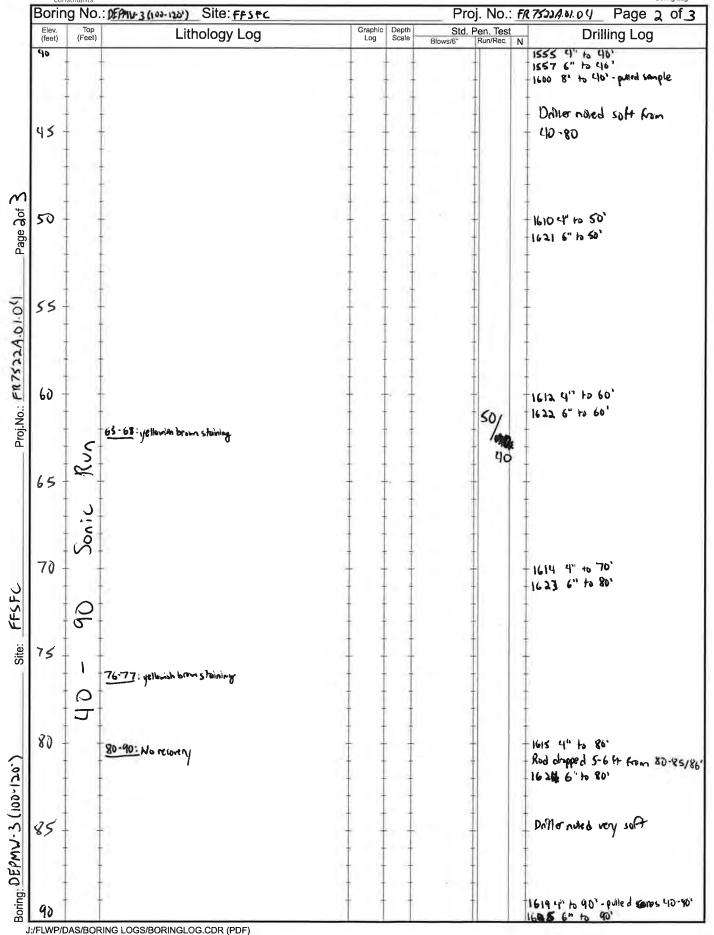
- 9 EQB indicates equipment blank 10 FRB indicates field reagent blank 11 MW indicates monitoring well





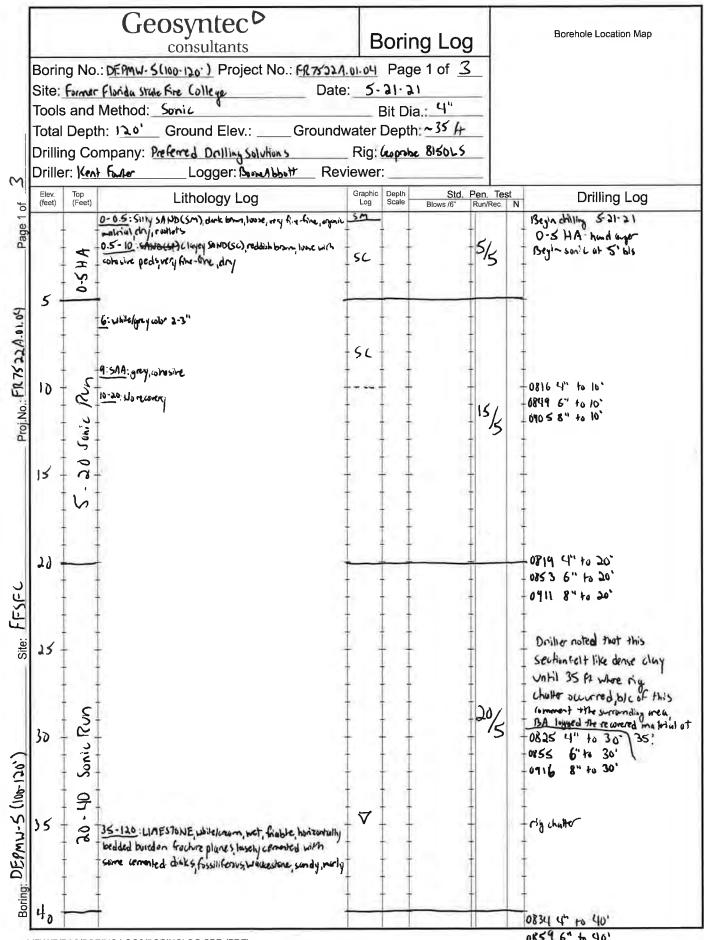






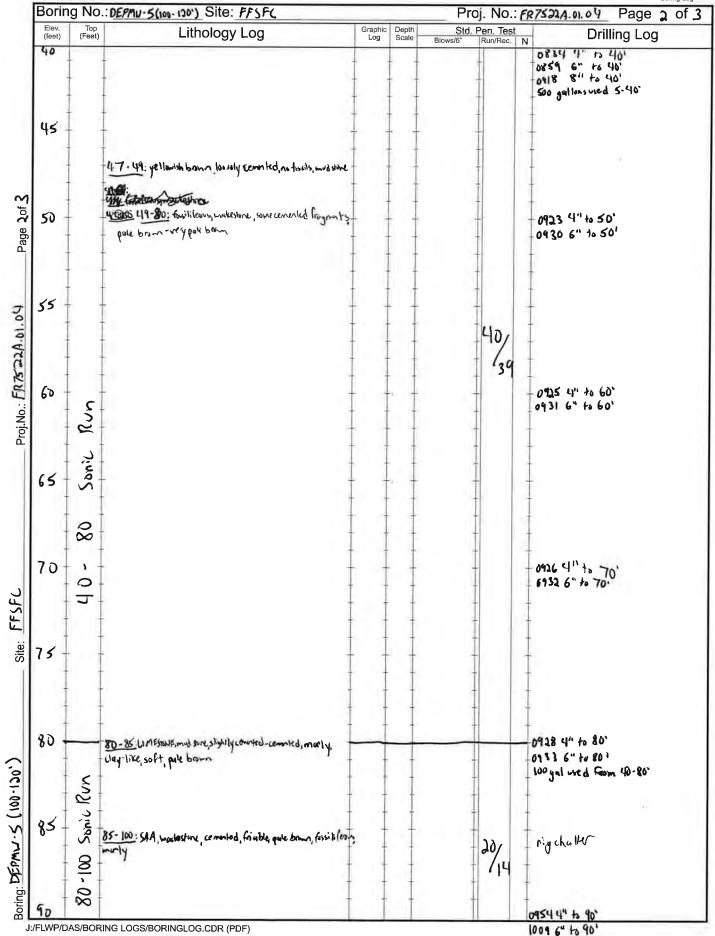
J:/FLWP/DAS/BORING LOGS/BORINGLOG.CDR (PDF)

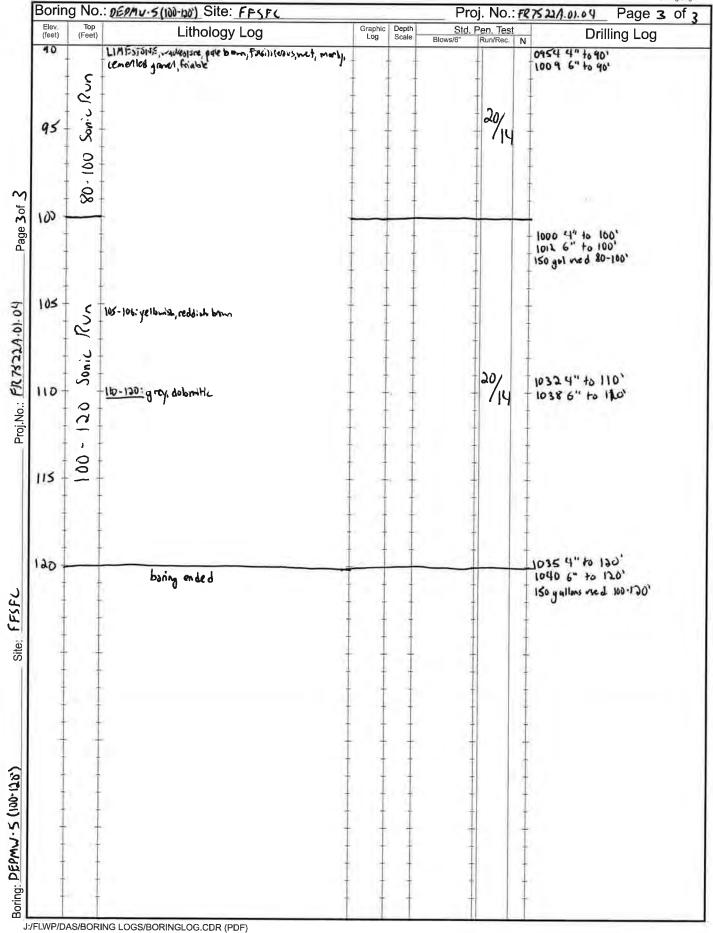
Elev.		TOFPIN-1 (m.no) Site: FFSFC	Graphic	Depth		I. Pen. Test	PR7532A.01.09 Page 3 of
(feet)	Top (Feet)	Lithology Log	Log	Scale	Blows/6"	Run/Rec	Drilling Log
95 -		90-92: Shell hashown very fasiliters, met 92-94: Clayey SAND, grey, purple staining, armyse mostling, very fine - medium, shell fagments present 94-96: CIMESTONE, pace brown, frieble, fasiliters, comented fragments, met, mackestone leackstone, a 46-105: Clayey SAND(SC), grey, purple staining, (greenish grey-with plashilly orange mostling hooding) medium plashilty, met, cohesire	1 (1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1619 4" to 90"
100 -	RVn						1646 E., 12100,
105 -	Sonic	118 Morty Dolumitic LIMESTONE, strong, grey- brown, famillows net organic odor frieble with				30/	driller noted more competent
	061 -	brown, familiarly met organic ador frieble with competent commend sections (disks), recrystallized noduces,				1	
110 -	90					†	1649 6" to 110'
115 -						1	
10.		118-120: politicae dissistante, vey story, bran, consided,				† *	169 4" to 130,
120-		boring ended					- 350 gal used to atill from 30-12

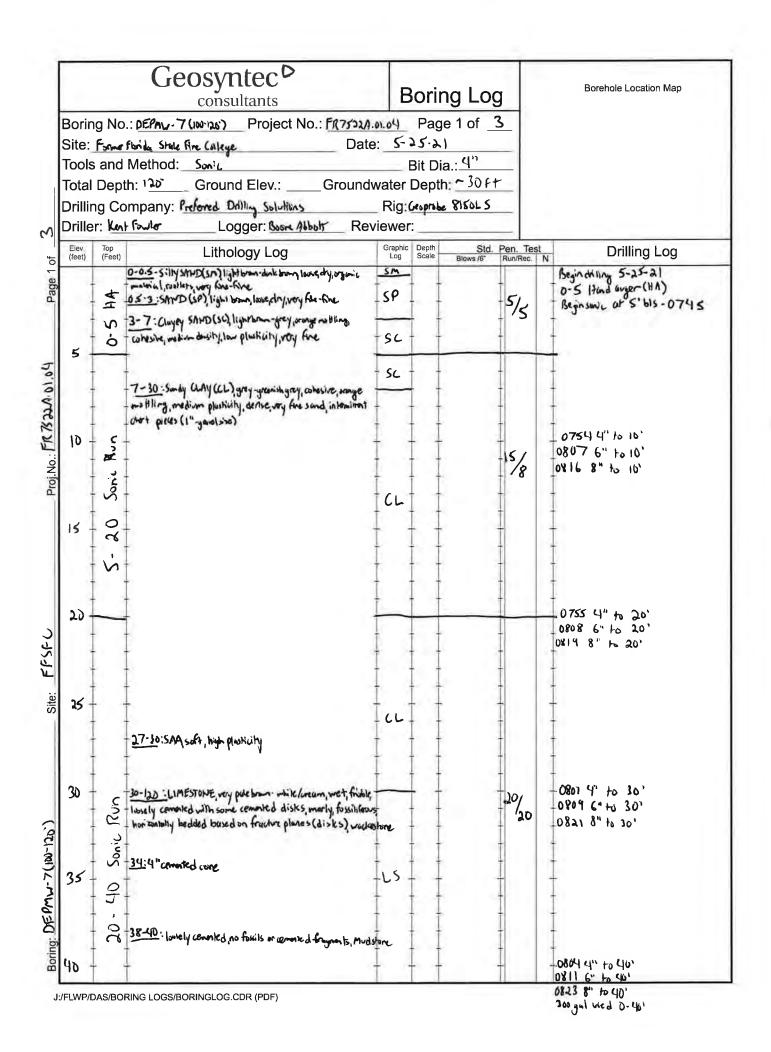


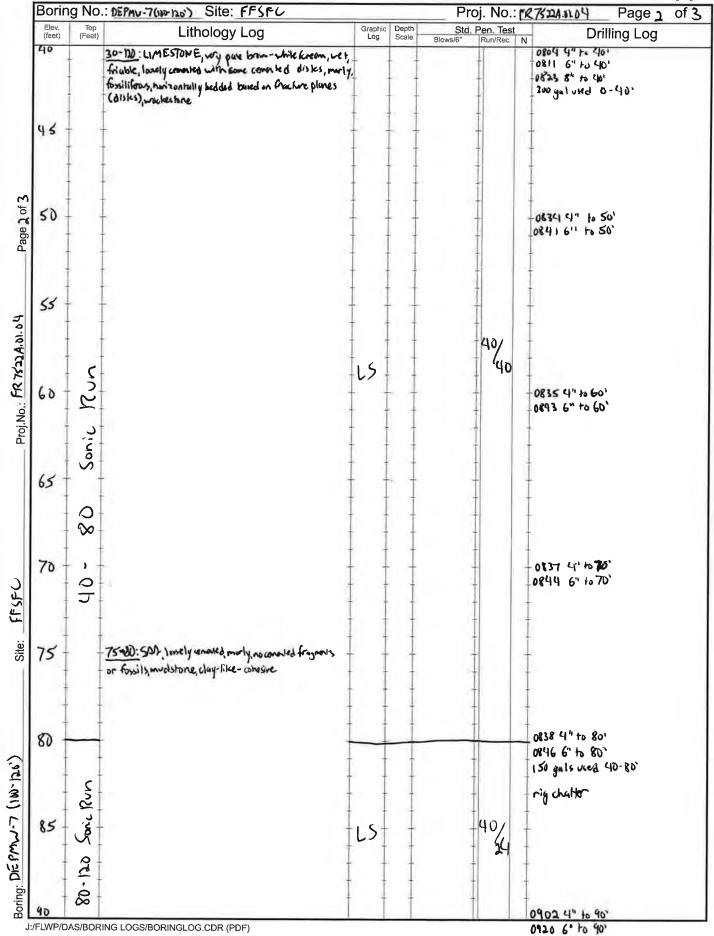
J:/FLWP/DAS/BORING LOGS/BORINGLOG.CDR (PDF)

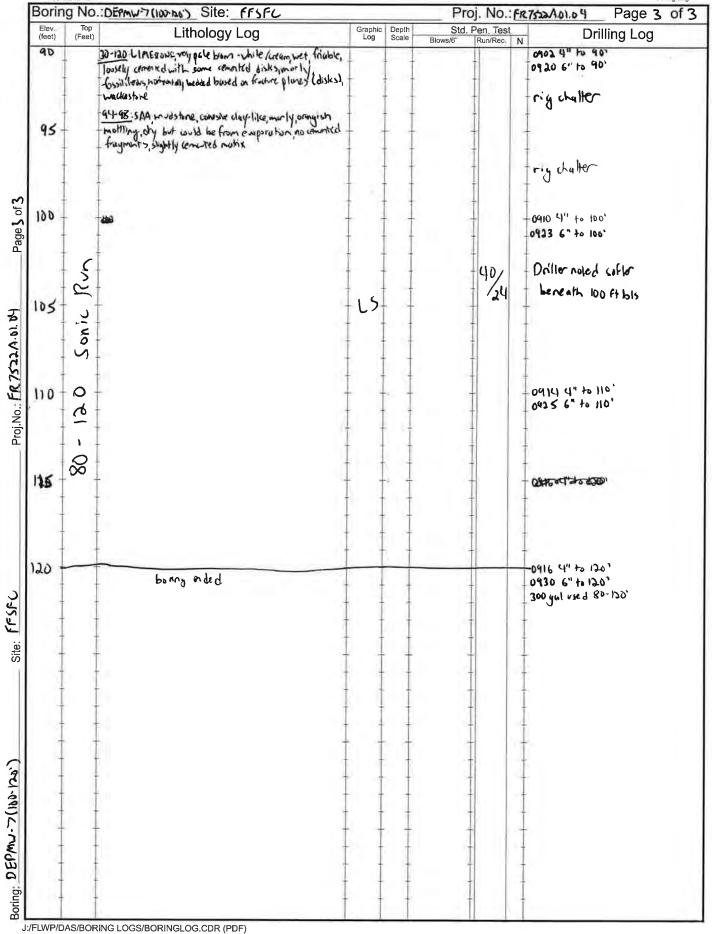
0859 6" to 40' 500 Julians used 5-40'











Well I.D .: DEPMJ · 1 (100-120) Site: Former Floridy State Fire College Drilling Company: Preferred Drilling Solutions (PDS) Project Number: FR 7522A.01.04 Driller(s): Kent Fowler Installation Method: Sonic Casing Installation Date: 5-18-21 Geologist/Eng./Tech.: Book Abbatt Signature: Signature: Well Type: Groundwater Monitoring Well Completion Method: Flush Mount Well Completion Guard Posts (Y/N) Date: 5.17.21 Ground Surface Surface Pad Size: ____ a ft x ____ Elevation DEPTH BLS Protective Casing or Cover Land Surface TRD Diameter/Type: 8" shell manhole Depth BGS: 12" Weep Hole (Y/N) Grout 0.5 Composition/Proportions: Portland Type 1/11 TRD 4 bays per butch × 6 butches = 24 buys total Measuring Pt. Placement Method: Tremie Pipe Elevation 0.6 (MPELEV) Date: 5-18-21 Riser Pipe **Seal** Type: Bentonite INTERVAL LENGTH Source: 1tok. Plus 99.9 43.4 Set-up/Hydration Time: 1 how Placement Method: Direct Pour Seal 5.0 Length Vol. Fluid Added: N/A Seal End Depth Filter Pack 98.4 (SBDEPTH) Type: 20/30 sand + Pea Gravel Source: Standard Sund+Silica Co. Screen 2.0 Begin Depth Amount Used: 21 buys 20/30 +77 bays Peg grave 1 4.601 (SBDEPTH) Placement Method: Direct Bur Well Riser Pipe Casing Material: Screen Casing Inside Diameters: 3 Filter Pack Length Screen 19.9 Material: 33.31 (SCRLENGTH) Inside Diameter: in. (FPL) Screen Slot Size:: 0.610 in. 120.3 Percent Open Area: Sump or Bottom Cap (\(\overline{\mathbb{N}} \) \(\mathbb{N} \) 0.4 Type/Length: Bottom Cap /4.5" Total Depth 120.7 **Total Water Volume During Construction** (TOTDEPTH) Introduced (Gal): 750 0 120.7 Recovered (Gal): 165 Borehole Reviewed Diameter **Comments** By: ___ COP = 4.5" = 0.375" Void encountered at ~115 ft bis 77 bays of pea gravel were used to fill void Surface cusing (8") was drilled to 40' bis to seal off unit above limestone Apparent valer level based on soil cores - 34 ft bls, measuredWL on 5-19-21 = 31.16 ft below TOC 5-19-21: 2 more batches of year + 20 buys of pea graves more used to got the grant buck up (17 dapped ownight significally)

(6 total bucks) (97) total

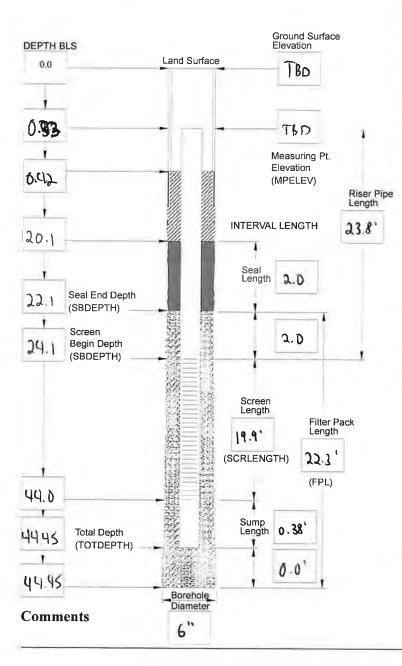
Well I.D .: DEPMV- 2 (25-45') Site: Former Florida State fire College Drilling Company: Preferred Doilling Solutions (PDS) Project Number: FR 7522 A.OI. 04 Driller(s): Kent Fowler Installation Method: Sonic Geologist/Eng./Tech .: Boone Abbott Casing Installation Date: 5-19-21 Signature: Sycolott Well Type: Groundwater Monitoring Well Completion Method: Flush Mount Well Completion Guard Posts (Y/N) Date: 5.37-31 Surface Pad Size: **Ground Surface** Elevation **DEPTH BLS** Protective Casing or Cover Land Surface 0.0 Diameter/Type: 8" sleet manhole

Depth BGS: 12" Weep Hole (Y/N) TBD Composition/Proportions: Portland Type 1/11 TBO 0,42 4 bugs per butch x2.5 butches = 10 bugs
Placement Method: Tranie pipe / Direct Pour Measuring Pt. Elevation (MPELEV) Date: 5-19-21 Riser Pipe Length <u>Seal</u> Type: 30/65 Sand INTERVAL LENGTH Source: Standard Sand & Silica Co. 241.3' 20.7 Set-up/Hydration Time: N/A Placement Method: Direct Pour Seal Length Vol. Fluid Added: VIA Filter Pack Seal End Depth 22.7 (SBDEPTH) Type: 20/30 Sad Source: Standard Sand + Siling Co. Screen Begin Depth Amount Used: 10 bass 24.7 (SBDEPTH) Placement Method: Direct Pour Well Riser Pipe Casing Material: PVC Screen Casing Inside Diameters: Filter Pack Length Screen 19.9' Material: PVC (SCRLENGTH) 22.3 Inside Diameter: Screen Slot Size:: 0.010 (FPL) 44.6 Percent Open Area: Sump or Bottom Cap (Y) N) Sump Length 0.4 Type/Length: Bottom Cap/4.5° Total Depth 45.0 (TOTDEPTH) **Total Water Volume During Construction** Introduced (Gal): 400 0` Recovered (Gal): 165 45.0 Borehole Reviewed Diameter By: _____ Date: ____ Comments

	at a second contract of					
Well I.D.: DEPMW-3 (100-120')	Site: Former Florida Stale Fire College					
Drilling Company: Preferred Drilling Solution's	Project Number: FR7522A.01.040					
Driller(s): Kent Fowler	Installation Method: Sonic					
Geologist/Eng./Tech.: 13050e Abbott	Casing Installation Date: 5-19-21					
Signature: Syllots	Well Type: Groundwater Monitoring					
U	Well Completion Method: Flush Mount					
DEPTH BLS O.0 Land Surface FBD Measuring Pt Elevation (MPELEV) Risc Len 1NTERVAL LENGTH 98. 97. 2 Seal End Depth (SBDEPTH) Screen Region Depth	Type: Benknite - 1 bas					
Screen Length 19.9' SCRLENGTH) 19.9' Sump Do.4' 119.5' Total Depth (TOTDEPTH) Borehole Diameter Comments	Amount Used: 10 bugs Placement Method: Direct Pour Well Riser Pipe Casing Material: PVC Casing Inside Diameters: 2 in. Screen Material: PVC Inside Diameter: 2 in. Screen Slot Size:: 0.000 in. Percent Open Area: - Sump or Bottom Cap (V) N) Type/Length: bottom Cap (V) N) Type/Length: bottom Cap (V) N Introduced (Gal): 650 Recovered (Gal): 165 Reviewed By: Date:					
3.5 betthes of govt as of 5-20-27						
15 batches of peagravel as of 5-20-21						
8" divilled to 40' bis for everide casing						

Well I.D.: DEPMU- 4 (25-45')
Drilling Company: Preferred Drilling Solutions
Driller(s): Kent Fourter
Geologist/Eng./Tech.: Boom Abbott
Signature: CANDOT

Site: From Florida State Fire College
Project Number: FR75224, D. 04
Installation Method: Sonic
Casing Installation Date: 5-20-2 1
Well Type: Groundwater Monitoring
Well Completion Method: Flush Mount



Well Completion
Guard Posts (Y / (V)) Date: 517-11 Surface Pad Size: 2 ft x 2 ft
Surface Pad Size: 2 ft x 2 ft
Protective Casing or Cover
Diameter/Type: 8" skel manhole Depth BGS: 12" Weep Hole (Y/N)
Depth BGS: h." Weep Hole (Y/N)
Grout
Composition/Proportions: Portland Type 1/11
4 bugs per butch x 1 backers = 4" total bugs (94)6
Composition/Proportions: Portland Type 1/11 4 bugs per butch x 1 bulches = 4 total bugs (94)b. Placement Method: Tremie Pipe
Seal Date: 5-20-2)
Type: 30/65 Fire sand - 1 buy
Source: Standard Sand & Silica Co.
Set-up/Hydration Time:
Placement Method: Dreat Pour
Vol. Fluid Added:
Filter Pack
Type: 20/30 Sand
Source: Standard Sand + Silica Co.
Amount Used: 10 bays
Placement Method: Direct Pour
Well Riser Pipe Casing Material: 2 PVC Casing Inside Diameters: 2 in.
Casing Material: 2 PC
Casing Inside Diameters: 2 in.
Material: PVC Inside Diameter: 2 in.
Inside Diameter: 2 in.
Screen Slot Size:: O.010 in.
Percent Open Area:
Sump or Bottom Cap (N)
Type/Length: Bo Hom Cap 14.50
Total Water Volume During Construction
Introduced (Gal): 350
Recovered (Gal): 110
Reviewed
By: Date:

Well I.D.: DEPMV-5 (100-120')	Site: E Phill Style Res Cules
	Site: Form Floida State Fire Calege Project Number: P17521A.01.04
Drilling Company: Preferred Orilling Solutions	Installation Method: Solic
Driller(s): Kent Fowler	Casing Installation Date: 5-21-21
Geologist/Eng./Tech.: Book Abbott	
Signature: Sollow	Well Type: Groundwater Monitoring
O	Well Completion Method: Flush Mount
	Well Completion
	Guard Posts (Y / 1 Date: 527-3)
DEPTH BLS Ground Surface Elevation	Surface Pad Size: 2 ft x 2 ft
l and Surface	Protective Casing or Cover
0.0 Land surface TBD	Diameter/Type: 8" Steel manhole
	Depth BGS: 12" Weep Hole (Y/N)
	Grout
0.42'	Composition/Proportions: Portland Type 1/11
0,42	4 hans for hetch x 3 huteles =12 total hans
Measuring Pt.	9 bays per batch x 3 butches = 12 total bays Placement Method: tremie pipe
0,5' Elevation (MPELEV)	1 Idection Williams Pro-
0,S (MPELEV)	Riser Pipe Seal Date: 5-21-3)
	Length Type: Benbank
INTERVAL LENGTH	99.6 Source: Hole Plug - 1 bay
93.0	Set-up/Hydration Time: how
	Placement Method: Direct Por
Seal Length 5.0	Vol. Fluid Added: DIA
	Filter Pack
98.0 Seal End Depth (SBDEPTH)	Type: 20/30 Smd
	Source: Standard Sand Silica Co.
Screen Begin Depth 2.0'	Amount Used: 12 645
(SBDEPTH)	Placement Method: Direct Pour
	Well Riser Pipe
	Casing Material: PC
Screen Length	Casing Inside Diameters: 2 in.
	rack ~ -
\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	Material: PVC
(SCRLENGTH) 22.	2
(FPL	
119.9	Percent Open Area:
	Sump or Bottom Cap (N)
Sump Length 0.38'	Type/Length: Boltom Cap/4.5"
120.3 Total Depth (TOTDEPTH)	Total Water Volume During Construction
	Introduced (Gal): 900
5.0	Recovered (Gal): 165
120.3	
Diameter	Reviewed By: Date:
Comments 6"	By: Date:
6	
Overide 8" to 90' bis	
כום טון מו אטייטאט	

Well I.D.: Prim V-6 (25-C/5')

Drilling Company: Parked Dally Solding

Driller(s): Kent Forder

Geologist/Eng./Tech.: Brown Mobile

Signature: Yollow

Site: Former Floods, State for College

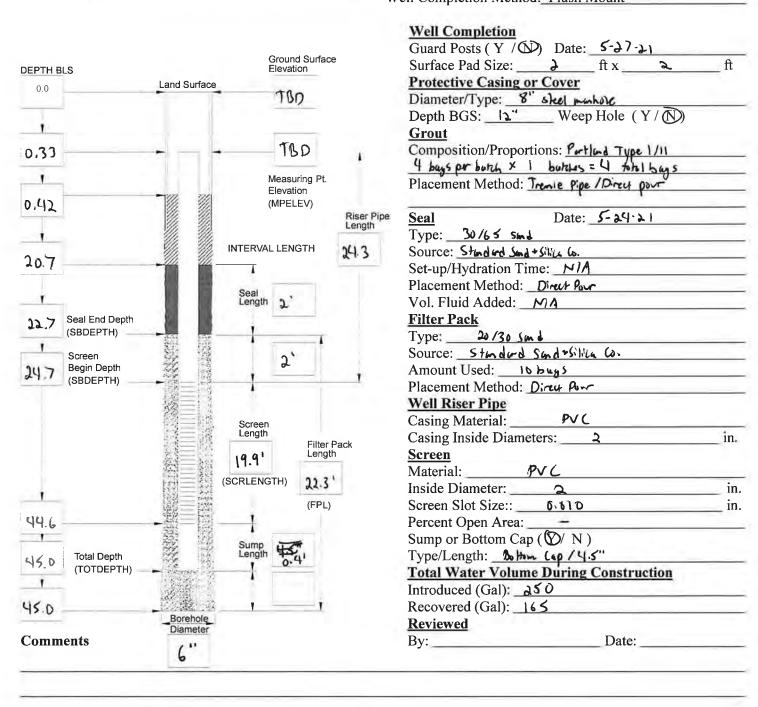
Project Number: F1275224.0).04

Installation Method: Sonic

Casing Installation Date: 5-24-21

Well Type: Groundwater Monitoring

Well Completion Method: Flush Mount



Well I.D .: DEPMW .7 (100-120)	
Drilling Company: Perfered Dolling Solvien 5	
Driller(s): Kent Fowler	
Geologist/Eng./Tech.: Book 16 bott	
Signature: Willow	

Site: Former Florida Stale Fire College
Project Number: FR 7522A. 01.04
Installation Method: Son't
Casing Installation Date: S-25-21
Well Type: Groundwater Monitoring
Well Completion Method: Flush Mount

DEPTH BLS		Ground Surface Elevation
0 0	Land Surface	TBD
0,25		TBD
		Measuring Pt
0.3		Elevation (MPELEV) Riser Pip Length
74.5		INTERVAL LENGTH 99.25
7(.5		
1		Seal Length 3 FF
92.5 Seal End Depth (SBDEPTH)		
Screen 99.5 Begin Depth (SBDEPTH)		7 94
(OBDELTIT)		
		Screen Length Filter Pack
)4.4' Length
		(SCRLENGTH) $\lambda 7.3$
119.4		(FPL)
Total Depth (TOTDEPTH)		Sump Length 0.4
(TOTDEPTH)		6.0'
1707	Borehole Diameter	
Comments	6"	

Well Completion Guard Posts (Y / W) Date: 5-27-21 2 Surface Pad Size: ft x ft Protective Casing or Cover Diameter/Type: 8" skel nunhole Depth BGS: 13" Weep Hole (Y/N) Composition/Proportions: Botton of Type 1/11 4 buys per burk x 3 burkes = 12 total buys Placement Method: Tranie Pipe Date: 5-25-21 Type: Bentanik Source: Hole Plus Set-up/Hydration Time: 1 hour Placement Method: Direct Pour Vol. Fluid Added: NIA Filter Pack 20/30 Sond Type: Source: Stundard Sand + Silicy Co. Amount Used: See below Placement Method: Direct Pour Well Riser Pipe Casing Material: Casing Inside Diameters: in. <u>Screen</u> Material: _ Inside Diameter: _ 0.010 Screen Slot Size:: in. Percent Open Area: Sump or Bottom Cap (②/ N) Type/Length: Botton Cap 10.375' **Total Water Volume During Construction** Introduced (Gal): ____ 750 Recovered (Gal): Reviewed $By:_{\underline{\ }}$ Date:

Void accountered around 115 bls. Regravel used - 6.5 pallets used, 5 bays have plug for seal; 14 20130 on 525:21 - 7 20130 on a 20 foot cection of 4" PVC with a belled end was used to bridge the roid from 100 115- 45 Abls.

5-26:21 used 5-25:21:6 pallets of paymen, got annular space up to 107 MHs., came back on 5-26:21 6" casing fell 10" + took nell withit.

PDS palled casing that came too. PDS reinstalled well to 120 lt but pea gravel fell back to 115 from 107 the day before, that's why a 20" section of 4" PVC was used to slide over the 2" well to help bridge it off. PDS cut slots in the 4" to provide more access FLWP/Forms/Field Forms/Well Construction/Well Construction Logs/well construction log-flusha_2016 for wall from PDS install 1/2 pallet of Enopea gravel to 1 bay of five sund to assure that it was filled above the 4" PVC before installing the seal, large seal was installed to more no grant introlon since 20.5 for was bridged of the below

Well I.D .: DEPMV-8 (20-40)		Site: Form, Florida Style Are College
Drilling Company: Preferred Dalling		Project Number: FR 75 224.01.04
Driller(s): Kent Forw		Installation Method: Sone
Geologist/Eng./Tech.: Boom Abho		
Signature:		Casing Installation Date: 5-36-31
Signature.		Well Type: Groundwater Monitoring
		Well Completion Method: Flush Mount
DEPTH BLS 0.0 Land Surface	Ground Surface Elevation	Well Completion Guard Posts (Y / N) Date: 5-27-2 Surface Pad Size: 3- ft x 3 ft Protective Casing or Cover Diameter/Type: 8" Sheel months.
		Depth BGS: 12" Weep Hole (Y/N)
_ 1		
4 21		Grout
6.3'	TRD	Composition/Proportions: Portland Type 1/11
- · · · · · · · · · · · · · · · · · · ·	Measuring Pt.	4 bays per butch x 1 3 butches - & total bays
0.5'	Elevation	Placement Method: Trans Rige / Direct gar
.0,3	(MPELEV) Riser Pipe	Seal Date: 5-26-21
	Length	Type: 30/65 Fire Sound
	INTERVAL LENGTH 14.4	Source: Standad Sand+Siku Co.
is.7		Set-up/Hydration Time: V/A
		Placement Method: Direct Pour
1	Seal Length 2	Vol. Fluid Added: VIA
Seal End Depth		Filter Pack
Seal End Depth (SBDEPTH)	1	Type: 20/10 Smd
Screen		Source: Standard Sand - Silve Co.
124 C)	2	Amount Used: 13 boss
(SBDEPTH)		Placement Method: Drur Pour
₩	Ī	Well Riser Pipe
		Casing Material:
	Screen Length	Casing Inside Diameters: \rightarrow in.
	Filter Pack Length	Screen
数三 数	19.9' Length	Material: PVC
	(SCRLENGTH) 223'	Inside Diameter: 2 in.
	(FPL)	0 01 01
396	(· · · · · · · ·	Screen Slot Size:: 0.010 in. Percent Open Area:
当	1	Sump or Bottom Cap (N)
Total Depth	Sump Length 0.4	Type/Length: 180100 C40 • 0.375' (0.4')
40.0 (TOTDEPTH)		Total Water Volume During Construction
	0.0	Introduced (Gal): 200
116.5	0.0	Recovered (Gal): 165
40.0 Borehole	, ,	Reviewed
Comments		
6"		By: Date:
ta tasa		

Well Development Log

Site: Fon	ner Floridu SI	rule fire Colleg		ii Devel	ортте	in Log	Project	t No.: Fr	7522A.01	.04
Moni	toring Well:	DEPMW-1 (10 Newly Install	0-130.)						5-25-21	
****	Initial Denth	to Water (ft)	· 2) (17			Initial De			120.10	
		Diameter (in)						Water (ft):		
			63 for 2" well	0.64 for	4" vvo11	П Тоtal X	Jaluma in	Wall (a)	40.67	1
		to Water (ft)		., 0.04 101	4 Well	Final De	epth to Bo	ottom (ft):	130-10	19112
Time	Flow Rate (gal/min)	Total Volume Removed (gal)	Depth to Water (ft BTOC)	Turbidty (ntu)	pH (SU)	Sp. Cond. (mS/cm)	Temp.	Dissolved Oxygen (mg/L)	ORP (mV)	Appearance of Water (color, odor)
1756	-1.4		31.51	23.6						deur
1816	~1.4		31.50	85.2						dover
1820	1.4		31.50	48.3						cloudy
1821	1.4		31.80	32.3						chay
1873	1.4		31.50	25.6						elvely
1872	1.4		31.50	18.2						alev
Describe D	evelopment Me	thod (e.g., pumr	l oing, surging, ins	trumentation	1	1		Water O	uality Met	er
			ms, deviations fr				Meter Nu		ון שירו מצמב א	
1630 beam o	mother - clark / mi		bresible pump	1 ,	,		Calibrated	د on/by: ح-ک	1-21 / B	4
1643 survey		,	saro sac pomp						on Parame	
	1708-HILES 1 de	m						full or 421		
171/144	1747-Filed 2 dru	···							7.10	
	development - 3 dr	ums full + less	thin 20 MTU	165gglrenue	٨					
	M 11.4 Lenv			3						

Well Development Log

Site: For	ur Plovida S	tule fine Wileye		II Devel	ортис	in Log	Project	: No.: FR	7522A.01.	04
Monit	toring Well:	DEPMU-2(25 Newly Instru	(-45)						5-26-2	
]	Initial Depth Well multiply	Diameter (in): height by 0.1 to Water (ft):	31. 9 7 3" 63 for 2" well	, 0.64 for		H Total V =	epth to Bo eight of V olume in	ottom (ft): Vater (ft):	45.00 (bef 13.06 2.13 gal	ore being ut for pud
Time	Flow Rate (gal/min)	Total Volume Removed (gal)	Depth to Water (ft BTOC)	Turbidty (ntu)	pH (SU)	Sp. Cond. (mS/cm)	Temp.	Dissolved Oxygen (mg/L)	ORP (mV)	Appearance of Water (color, odor)
1119	1.6		32, 19	10.93						cler
1128	1.6		32.20	9.70						der
1204	1.6		32,20	11.73						cler
1236	1.6		72.21	38.62						Cloudy
1244	1.6		32. 21	16.71						clear
Dagariha Da	volomo v M	41-16-						Watan	1:4 B/I-4	
otal volume	removed, res	ethod (e.g., pump t periods, probler	ns, deviations fro					nber: Lanon	uality Met	<i>પ્</i> લ્લા છ
1106 200	n pumping - claud	19/4	submersible pump						on Parame	
1131 surge 1131 surged 206 surged 220 surged	id d 1450: noved pu filled 2downs m	mpup 1411ed I dru and pump d 3 drums - 165;						or 750		

11/7/17, Ver.2 Geosyntec Consultants

Well Development Log

Site: Form	er Floridu Stu	de Fire Colley	Project	t No.: Fr	75224.01.04				
		DEPMW-31							5-2621
Well	Condition:	Neuly Inst	P:	ID (ppm):					
Init	ial Depth to	Water (ft):	pth to Bo	ottom (ft):	119.40				
	Well Dia	ameter (in):	2			H	eight of V	Water (ft):	88.98
mu	ltiply heigh	t by 0.163 f	or 2" well	l, 0.64 for	4" well	= Total V	olume in	Well (g):	14.5
Fir	nal Depth to	Water (ft):	30.02			Final De	pth to Bo	ottom (ft):	119.50
Time	Flow Rate (gal/min)	Total Volume Removed (gal)	Depth to Water (ft BTOC)	Turbidty (ntu)	pH (SU)	Sp. Cond. (mS/cm)	Temp.	Dissolved Oxygen (mg/L)	Appearance of Water (color, odor)
1419	1.1		32.36	93					cloudy
1500	1.1		31.37	72					cloudy
1520	1.1		32.37	40.5					cloudy
1535	1.1		32.37	33.1					cloury
									1
				- 7					
			-						
					7 = -				
Describe De	velopment Me	thod (e.g., pur	nping, surg	ing, instrun	nentation			Water O	uality Meter
		periods, prob	_	_			Meter Nur		2020 10:10.04 HTV
1355 Begin purp	ing - cloudy luhi								21 /M
1 4 20: Surgod	_	SVON	ersible group				S	tabilizati	on Parameters
1430 sayed 1502 surged							3 dry	s or 620	עוא
1521- miled 4	p smen/surged								
1534- Alled 1536 surged	2 anns								
1551 surged 11	os surged unprojetited 3 d	101-6							
1890. Subbee b	mbid 1 mg > C	yumy							
									11
									, 1

Well Development Log

Site: 6	mer Florida S	itule line Col		1 DCVC1	ортс	iit Log	Projec	t No.: Fr	755211.01.	04
Moni [*] Wel	toring Well: _ l Condition: _ Initial Depth Well D	DEPMU-4(3) Newly Into Water (ft): Diameter (in): height by 0.1	25-45') srulled 30.18 2 63 for 2" well	, 0.64 for	4" well	H = Total V	epth to Bo eight of V olume in	ottom (ft): Water (ft): Well (g):	14.22	
Time	Flow Pote Total Volume Dorth to Water Total It.						cm) (°C) Oxygen ORP (mV) Wat			
1757	1.2		30.31	7.26				(11.8.2)		(color, odor)
Describe De	evelopment Metl	hod (e.g., pump	ing, surging, inst	rumentation				Water Q	uality Met	er
	-ping-cloudy luhi	le	ns, deviations fro	m plan, etc.)		Calibrated S	on/by:حدی tabilizati	on Parame	
1768: Svryed 1715: Svrged 1724 Svrged 1732 Svrged 1737 Svrged 1742 Svrge 1750 Svrye	d : Filhed Idrom L E	ر ۱۱۵ رکتل کی	mė				3 dru	we or C	VIU 61	

Well Development Log

Site: Fon	mer florida	Stale Fine C	Project No.: ۶،۲۶۶۶ ۵۰۵۱- ۵۹						
Moni	toring Well: l Condition:	DEPMW-	5(100-120	(1)			7		5-26.21
Init	120.3								
	Water (ft):								
mu	ultiply heigh	ameter (in): t by 0.163 f	or 2" well	l, 0.64 for	4" well	= Total V	olume in	Well (g):	10.47
Fi	120.3								
Time	Flow Rate (gal/min)	Total Volume Removed (gal)	Depth to Water (ft BTOC)	Turbidty (ntu)	pH (SU)	Sp. Cond. (mS/cm)	Temp.	Dissolved Oxygen (mg/L)	Appearance of Water (color, odor)
2007	1.3		31.66	38.2				1	cloudy
2014	1.3		31.66	26.8					clear
2018	1.3		31.66	24.8					cler
2021	1.3		31.66	21.9					Clev
2028	13		31.66	32.2					clear
						0			
Describe De	velopment Me	ethod (e.g., pu	mping, surg	ging, instrun	nentation			Water Q	uality Meter
	removed, rest						Meter Nun		VTU 16.01:01 SUDKEC
120; Pumping	begun, cloudy /	uhile							N / W
812:Surged 1844: Surged	,	50	bnersible p	·~p			S	tabilizati	on Parameters
1855: swyed				1		i	3 drin	s or 42	VINO
1913: surged		(Att day				7			
1926: Surged	provide 3000	By Swam							- 1
2029:Stypec	d pumping, fi	hu 3 drus							

Geosyntec Consultants 11/7/17, Ver.2

Well Development Log

Site: Form	er Florida	Stale Fine Co	ollege				Project	No.: Fr	322A.01.04
		DEPMV-		(3')					5-26-21
Well	Condition:	Newly 7	nstalle d	13			Pi	ID (ppm):	- 41
Init	ial Depth to	Water (ft):	31.65	5		Initial De	pth to Bo	ottom (ft):	44.98
		ameter (in):						Vater (ft):	
mu	ltiply heigh	t by 0.163 fe	or 2" wel	l, 0.64 for	4" well				
		Water (ft):						ottom (ft):	
Time	Flow Rate (gal/min)	Total Volume Removed (gal)	Depth to Water (ft BTOC)	Turbidty (ntu)	pH (SU)	Sp. Cond. (mS/cm)	Temp.	Dissolved Oxygen (mg/L)	Appearance of Water (color, odor)
1932	2.2		31.78	5-89					clea
1940	2.2		3178	3.61					clear
		4							
		ethod (e.g., pur							uality Meter
		periods, prob	lems, devia	tions from p	olan, etc.)				OTU 16.01 : 01 SUGGE
830: Pumping 833: Sugged	boym, cloudy 1	-hile	ubmersible	om p		-			41 / M
948: surged		,	, collector	· ()			S	tabilizati	on Parameters
866: surged						L	3 Dru	مه مد دع	ONTU
912: surged									
925: Surged 9216: Shood	amore file	d 3 drans + low	W7V						
3.46.0	Lamber all								

Geosyntec Consultants

11/7/17, Ver.2



Well Development Log

Moni Wel Init	toring Well:				Project No.: Fn 7532A.01.04						
Wel Init	tornig wen.	DEPMW	-7(100-1	50,)					5-27-21		
Init	l Condition:	NEVIV	Install	4.	PID (ppm):						
	l Condition: tial Depth to	Water (ft):	27.61		Initial Depth to Bottom (ft): 19.8						
		ameter (in):						Water (ft):			
mı	ıltiply heigh			0.64 for	4" well	= Total V	olume in	Well (a):	/χ.11 < λ		
Fi.	nal Depth to	Water (ft)	77 ()	, 0.0 1 101				ottom (ft):			
11,	nai Bepin to	water (11).	¥1.60			Tillal De	рш ю вс	ottom (11):	114.8		
Time	Flow Rate (gal/min)	Total Volume Removed (gal)	Depth to Water (ft BTOC)	Turbidty (ntu)	pH (SU)	Sp. Cond. (mS/cm)	Temp.	Dissolved Oxygen (mg/L)	Appearance of Water (color, odor)		
252	1.8		27.63	1.87				(g.2)	clear		
- 11						A					
	1										
scribe De	velopment Me	thod (e.g., pu	nping, surg	ing, instrum	entation			Water O	uality Meter		
	removed, rest					- 1	Motor Num				
Di Brander he	gins, while relov	i.	submusib		nan, etc.)		Calibrated	on/hu 534	2020 WE 10=10.21		
Di Romain an	Mea : Moul	uy un 600 no linet	*	e fomb		ŀ	Calibrated on/by: 53631 / BA				
4.71 July 2.	pped: surged ch	2 pas 10-4	softa mo	In Dires!		Stabilization Parameters					
doubly seco	me then then sing	in that had				3 drys or 420 MTU					

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Well Development Log

oring Well: Condition:	FORMA ES					No.:Fni			
	Water (ft):	27.6°	L	PID (ppm):					
Iltiply height al Depth to	t by 0.163 fo Water (ft):	or 2" well - 🍲 ⊋7.	, 0.64 for 5 ≾	4" well =					
Flow Rate (gal/min)	Total Volume Removed (gal)	Depth to Water (ft BTOC)	Turbidty (ntu)	pH (SU)	Sp. Cond. (mS/cm)	Temp.	Dissolved Oxygen (mg/L)	Appearance of Water (color, odor)	
1.3		27.65	5.42					clear	
velonment Me	thad (e.g. nu	nning surg	ing instrum	entation			Water O	uality Matar	
removed, rest	periods, prob		-			Meter Nun			
umpirotrum sletch	orgh					Calibrated	on/by: 5-26	11 / Ba	
	submer	sible pump			-				
pumping 3 dnas	611+10~ NTV					3 00	wy or		
	Flow Rate (gal/min) 1.3 velopment Me removed, rest	removed, rest periods, prob	Itiply height by 0.163 for 2" well hal Depth to Water (ft): Flow Rate (gal/min) Flow Rate (gal) 1.3 Pepth to Water (ft BTOC) 27.65 1.3 Velopment Method (e.g., pumping, surgeremoved, rest periods, problems, devia Total Volume Removed (gal) Velopment Method (e.g., pumping, surgeremoved, rest periods, problems, devia Total Volume Removed (gal) Velopit to Water (ft BTOC) Vater (ft BTOC) 27.65	Itiply height by 0.163 for 2" well, 0.64 for all Depth to Water (ft): Flow Rate (gal/min) Total Volume Removed (gal) Depth to Water (ft BTOC) 1.3 27.65 5.42 velopment Method (e.g., pumping, surging, instrum removed, rest periods, problems, deviations from property white /c looky	Itiply height by 0.163 for 2" well, 0.64 for 4" well and Depth to Water (ft): Flow Rate (gal/min) Total Volume Removed (gal) Depth to Water (ft BTOC)	Itiply height by 0.163 for 2" well, 0.64 for 4" well = Total Volume Removed (gal/min) PH (SU) Sp. Cond. (mS/cm) Flow Rate (gal/min) Removed (gal) PH (ntu) PH (SU) Sp. Cond. (mS/cm) 1.3 27.65 S.42 velopment Method (e.g., pumping, surging, instrumentation removed, rest periods, problems, deviations from plan, etc.)	Itiply height by 0.163 for 2" well, 0.64 for 4" well = Total Volume in all Depth to Water (ft):	Itiply height by 0.163 for 2" well, 0.64 for 4" well = Total Volume in Well (g): Flow Rate (gal/min) Total Volume Removed (gal) Water (ft BTOC) 1.3 27.65 S.42 27.65 S.42 Nelopment Method (e.g., pumping, surging, instrumentation removed, rest periods, problems, deviations from plan, etc.) Water Q Meter Number Lank N Calibrated on/by: 5-26 Stabilization	

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Geosyntec Consultants Water Quality Instrument Calibration Form

Project/Site: Former Floids State Fire Where			Project #: FR7	1010.AGG2	Field Personnel: Book Abbott						
Water Quality Mete	er - Model/Seri	al #:					Turbidimeter -	Model/Seria	# LAMONE 2020	We/1776	-0212
Dissolved Oxygen	DEP SOP FT 1500	Date	Time	Temp (°C)	Saturation (mg/L) ¹	Reading (mg/L)	Reading (%)	Pass or Fail	0.1 - 10 NTU Std 10 NTU	Date	Reading Pass of (NTU) Fail
CAL ICV CCV CAL ICV CCV CAL ICV CCV						Acco	eptance Criteria:	+/-0.3mg/L P F P F P F	CAL (CV) CCV CAL ICV CCV CAL ICV CCV	Acce 5-25-≥1 ≤-26-21	ptance Criteria: +/- 10'
Specific Conductance	DEP SOP FT 1200	Date	Time	Standard (mS/cm)	Standard Lot #	Standard Exp. Date	Reading (mS/cm)	Pass or Fail	11 - 40 NTU StdNTU	Date	Reading Pass of (NTU)
CAL ICV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV							Acceptance Crit	P F P F	CAL ICV CCV CAL ICV CCV CAL ICV CCV CAL ICV CCV	Acc	reptance Criteria: +/- 8 P P P P P P P P P P
рН	DEP SOP FT 1100	Date	Time	Standard (SU)	Standard Lot #	Standard Exp. Date	Reading (SU)	Pass or Fail	41 - 100 NTU StdNTU	Date	Reading Pass (NTU) Fail
CAL ICV CCV						Ac	ceptance Criteria	P F P F P F P F P F P F P F P F P F P F	CAL ICV CCV	Acce	P P P P P P P
ORP	SOP N/A	Date	Time	Std. mV @ Temp °C	Standard Lot #	Standard Exp. Date	Reading (mV)	Pass or Fail	>100 NTU StdNTU	Date	Reading Pass ((NTU) Fail
CAL ICV CCV CAL ICV CCV CAL ICV CCV						Geosyntec	Acceptance Crit	eria: +/- 5% P F P F P F	CAL ICV CCV CAL ICV CCV	Acc	ceptance Criteria: +/- 5 P P P P
Specific Conducta 1. See Table FS 2200 CAL - Initial Calibration ICV - Initial Calibration CCV - Confinuing Calib Allow adequate time for Calibrate specific cond Calibrate pH using at It If parameter fails to cal	2 on the back of Verification ration Verification r the dissolved ox uctance using at I east two standards	this form ygen sensor to e east two standar s (typ_pH 4 and	ds that bracket th 7) that bracket the	air calibration e range of expected sa a range of expected sar	nple readings; alway	ss readings < 0.1 mS/c					Geosyntec [©]

FIELD DRUM INVENTORY TRACKING LOG

Project No.: FR7532A.01.04

Project Start Date: 5 - 17-21

Drum Number	Generation Date	Content % Full	Contents (soil, development water, purge water, etc.)	Source Location (Well #, Boring #, etc.)	
	5-17-21-5-19-21	750%	Drill Mud / Decon Water	DEPMU-1+2	
٦	5-21-21	100%	Soil	DEPMU-S	
3	5-21-21	30%	Soll	DEPMU-S	
4	2-51.91	100%	Drill Mud	DEPMU-S	
5	5-18-21-5-20-21	d°001	Soll	DEPMW-3+4	
6	5-24-21-5-26-21	80%	Dall Mud	DEPMU-7+8	
7	5-18-21-5-20-21	100%	Soft	DEPMW-3+4	_
8	5-18-21-5-20-21	100%	Drill nud	DEPMW-J+4	
9	5-18-21-5-1921	80%	Soil	DEPMV-2	
10	5-18-21	1000%	Soil	DEPMU-1	
1(5-18-21	10006	Soll	DEPMW-1	
12	5-25-21	100%	Development Wales	DEPMU-1	
13	5-26-21	100%	Development Vol	DEPMW-3	
14	5-25-21	30%	Dan Mud	DEPMV-6	
15	25 Per 25 Per 31	100%	Development Valer	DEPMU-6	
16	2.76.71	100%	Development Valor	DEPMU-6	
17	5.76.51	100%	Dencionent Valor	DEPMU-S	
18	5-25-21-5-26-21	80%	Dillimid	DIEPMU-7+8	
19	5-25.21	100%	Decon Water	DIEPMU-6 - Decon Pit	
79	2.92.71	100"75	Decon Ugler	DEPMV.506 · Decon Pit	
21	5-17-21-5-20-21	10090	Becan Vater	DEPMU. 1,2,34	
ナ ア	5-1921-5-20-21	100%	Decon Wall	DEPMW 3+4	
23	2-92-91-2-76-51	80%	Dan wig	DEPMW-7-8	

FIELD DRUM INVENTORY TRACKING LOG

Project No.: FR7525A.01.04

Project Start Date: 5-17-11

Drum Number	Generation Date	Content % Full	Contents (soil, development water, purge water, etc.)	Source Location (Well #, Boring #, etc.)
24	5-26-21	100%	Development Vyler	DEPMW-6
25	5-26-21	1000%	Developmen Wyler	DEPMU-S
26	5-24-21	1007	Development Water	DEPMU-S
27	5-19-21-5-20-21	40%	DAII MUD	DEPMW-3+4
28	5-19-4-5-20-21	100%	Dillind	DEPMV-3-4
29	5-26.21	100%	Development Water	DEPMV-4
30	5-26-21	160%	Development Lyx	DEPMW-3
31	5-76-71	100%	DevelopmentValor	DEPMV-4
32	5-26-21	100%	Development Waler	DEPMU-3
37	2.92.91	100%	bevelopment Water	DEPMW-1
34	5-25-21	100%	bevelopment Water	DEPMW-1
35	5.26-21	100%	bevelopment Water	DEPMW.2
36	5-26-21	100%	Development Water	DEPAV-2
37	5.26.91	100%	Denlopmar Warr	DEPMU- 2
38	5.27.21	45,001	Development Walk	DEPMU-7
39	5-27-21	190 217	Development Vaur	DEPMW-8
40	5-27-21	100%	perdippent Unit	DEPMU-8
41	5.27.21	100%	Re-choner Vyler	DEPMW.7
42	527.21	100%	De-cloner Viler	DIEPMU-8
43	5-37-21	[000]	beredooner + Water	DEPMU-7 -
44	5-25-21	100%	Sorl	DEPMU:7
45	5-25-21	50%	Soil	DEPMW-7
46	5-72-71	75%	Sollionilmil	DÉPMU-7

FIELD DRUM INVENTORY TRACKING LOG

Project No.: FR7522A.01.04

Project Start Date: 5-17-21

Drum		Content	Contents		
Number	Generation Date	% Full	(soil, development water, purge water, etc.)	Source Location (Well #, Boring #, etc.)	-
47	5.76.91	100%	Deion Water	DEPMU- 704 - Dewn PS}	
48	5-27-21	100%	Decon Mud / Fluids	DEPMW-5-8-Decon Pit	

\$ 2 downs added (empty) = so total from PDS, these will be used for GLI sampling

ATTACHMENT BPhotographic Log

Geosyntec consultants

Client: Florida Department of Environmental

Protection

Project Number: FR7522A

Site Name: Former Florida State Fire College (FFSFC)

Site Location: 1501 W Silver Springs Blvd,

Ocala, FL

Photograph 1

Date: 17 May 2021 9:17

 \mathbf{AM}

Direction: W

Comments: Utility locating was performed prior to subsurface activities.



Photograph 2

Date: 18 May 2021 11:38

 \mathbf{AM}

Direction: N

Comments: View of the drilling decontamination pit. All rods and casing were decontaminated prior to work and after each soil boring using per- and polyfluoroalkyl substance-free water. Equipment blanks were collected from decontaminated tooling.



Geosyntec consultants

Client: Florida Department of Environmental

Protection

Project Number: FR7522A

Site Name: Former Florida State Fire College (FFSFC)

Site Location: 1501 W Silver Springs Blvd,

Ocala, FL

Photograph 3

Date: 19 May 2021 8:41

 \mathbf{AM}

Direction: S

Comments: Eight monitoring wells were installed via rotosonic drilling across the site. A water-table monitoring well and a deep monitoring well were paired at 4 locations.



Photograph 4

Date: 18 May 2021 9:27

 \mathbf{AM}

Direction: NA

Comments: Soil cores were collected from 5 feet below land surface to a total depth of 120 ft at each well pair location.



Geosyntec[▶] consultants

Client: Florida Department of Environmental

Project Number: FR7522A

Protection

Site Name: Former Florida State Fire College Site Location: 1501 W Silver Springs Blvd,

(FFSFC)

Ocala, FL

Photograph 5

Date: 27 May 2021 12:46

PM

Direction: S

Comments: Wells were completed flush to grade and set in an 8-inch diameter manhole set in a 2 ft x 2 ft concrete well pad.



Photograph 6

Date: 27 May 2021 1:09

PM

Direction: E

Comments: Monitoring wells were developed by surging and pumping until 3 drums were filled or the turbidity stabilized below 20 NTUs.



Geosyntec consultants

Client: Florida Department of Environmental

Protection

Project Number: FR7522A

Site Name: Former Florida State Fire College (FFSFC)

Site Location: 1501 W Silver Springs Blvd,

Ocala, FL

Photograph 7

Date: 27 May 2021 2:56

PM

Direction: E

Comments: Forty-eight drums containing soil cuttings, decontamination water, drilling mud, and development water were staged at the site.



Photograph 8

Date: 27 May 2021 5:05

PM

Direction: E

Comments: All fortyeight drums were removed immediately following the event by the waste hauler.



ATTACHMENT CNon-Hazardous Waste Manifest

			-							_			
	N-H ZARDOUS NAMEEST	1, Generator ID Number	2. Pa	ge 1 of 3. Emerge	ncy Response Phone	4. Waste	Tracking Numi	ber					
	5. Generator's Name and Mailing	Address To TO	Cane	rator's Ste Advess	Of officered then mail	on address t							
	Generator's Phone: (859)243-87	2600 Bloir Stac Rd Tullahance, FL 12399	GEN	Former Florida State Fire College 1501 W. Silver Springs Blvd. Ocala, FL 24475									
	6 Transporter 1 Company Name Erwin	Remediation, Inc.		U.S. EPA ID Number FLR000223867									
	7. Transporter 2 Company Name					U.S. EPA ID	Vumber			=			
			<u> </u>			_1							
	12950	outh Services 0-A Highway 43 AL 36505		U.S. EPA ID Number									
	9. Waste Shipping Name a	nd Description		10. C	ontainers	11. Total	12. Unit Wt.Vol.						
				No	Туре	Quantity.	VILIVOL						
GENERATOR	Non-Hazardo	us Soil/Mud		20	DM								
90	Non-Hazard	ous Water		28	DM								
	3.												
	4.,												
	marked and labeled/placarded, an	CERTIFICATION: I hereby declare that d are in all respects in proper condition f					hipping name, a						
1	Boone Abbott (as as			Sonal	lotte			Month 5	27	21			
INTL	The state of the s	Import to U.S.	Export from U.S.	0-	Port of Entry/Exit Date Leaving U.S.								
5	16. Transport Acknowledgement of	of Receipt of Materials											
TRANSPORTER	Tyler New J			Signature	T. Mark			Month 5	Day 27	Year 21			
TRAN	Transporter 2 Printed/Typed Name			Signature				Month	Day	Year			
	17. Discrepancy												
	17a. Discrepancy Indication Space	Quantity	Туре		Residue Reference Number	_ P	artial Rejection	F	il Reject	ion			
2	17b. Alternate Facility (or Generator) U.S. EPA IS Number												
FACELTY	Facility's Phone:					1							
DESKONATED	17c. Signature of Alternate Facility	(or Generator)						Month	Day	Year			
ā		-46	Marie Land										
	18 Designated Facility Owner or C	perator: Certification of receipt of materia	als covered by the manifest	y the manifest except as noted in item 17a									
				Signature				15.00	30.00				