

A	MEC PROJECT	NUMBER 62	28-1	2-002	<u> </u>	IONITORIN	G WELL N	JMBER	MW-135			
	Λ	ike Sparta	nburg DA	ATE 10 %	3-12_1	TIME OF SA	MPLE	1505				
	IELD PERSONN	ا د کاسیب	<i>J</i>			/EATHER C	ONDITION	s Cloud	dy 680			
									, ,			
T	OTAL WELL DI	EPTH (TWD)	20,3	<u>} </u>	neasured we	ll tag / driller	rs log/ previo	us report – ci	rcle one)			
S	CREENED INTE	ERVAL 10	39-20	0,39	MEASUR	ING POINT	FOR DEPTI	TE TE)			
	DEPTH TO GROUNDWATER (DGW) 11.85											
	LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{5}{15}$											
	CASING DIAMETER 2 IN.											
C	NE STANDING	WELL VOLUME	E =], 	gal.								
(1)	NOTE ½" = 0.010	02G/FT: ¾" = 0.02	23 G/FT: 1		T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	6"= 1.46 G	/FT)			
Т	HREE STANDIN	NG WELL VOLU	MES =	4,2	FIVE STA		/1	/IES =	2			
M	METHOD OF WE	ELL EVACUATIO	N: BA	AILER PUN	IP) OTHER:	TYP	е <i>Рег</i>	<u>- / </u>				
T	OTAL VOLUME	OF WATER RE	MOVED: _		(GAL. FLO	W RATE		mL/min			
V	VELL TYPE: Z	LUSH MOUNT	ABOVE (GRADE			COMME	ENTS				
L	OCKING CAP		YI	ES	NO	<u> </u>						
P	ROTECTIVE PO	ST/ABUTMENT	YI	ES	NO							
N	IONPOTABLE L	ABEL	YI	:s	NO							
IJ	D PLATE		YI	ES	NO							
V	VELL INTEGRIT	Y SATISFACTO	RY YI	ES <u> </u>	NO		 					
V	VELL YIELD I	LOW	MODERA'	TE	HIGH							
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP				
	Purge Time (in minutes)	Groundwater	рН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes			
1444	Initial Reading	11.81	4.63	0,002	18.)	9.51	25.81	.323				
1454	1454	12,21	3,84	0,308		2.59	23,65	324				
<i>y</i> (~) (1459	12,25	3,86	5,305	10,3	2.43	23,63	287				
	1504	12.26	3.87	10.302	8,9	1.78	23.63	341				
	7501	_ / Ø _ Ø _ Ø		JUA								
,												
	g											



AMEC PROJECT N	iumber <u>627</u>	18,12.0	02	M	ONITORIN	G WELL NU		MUPTUR	<u>`</u>
	Tuke Spa	, ,		3/12_T	IME OF SA	MPLE	M. COO		_
FIELD PERSONNE	EL Rock	en	(lack	W	EATHER C	ONDITIONS	<u> P. C</u>	loudy	_
		18		_	_			/	
TOTAL WELL DE	· PTH (TWD)	62	FT. (m	neasured/wel	l tag Ddriller	s log/ previou	ıs report – c	ircle one)	
SCREENEDINTER	RVAL5	7-6	2	MEASURI	NG POINT	FOR DEPTH	T.O.	C	_
DEPTH TO GROU		-							
LENGTH OF WAT					.83_				
CASING DIAMET	_								
ONE STANDING V	WELL VOLUMI	= <u> </u>	gal.	-					
(NOTE $\frac{1}{2}$ " = 0.0102				T: 2" = 0.163	G/FT: 4"=	0.653 G/FT:	6"=1.46	G/FT)	
THREE STANDING	G WELL VOLU	MES = _ 2	26.8	FIVE STA					
METHOD OF WEI	L EVACUATIO	N: BA	JLER PUN	/I) / OTHER:	TYPI	E <u>perista</u>	altic (low flow)	
TOTAL VOLUME	OF WATER RE	MOVED: _	~	<u>s</u> (GAL. FLO	W RATE	18-4/1	OO_mL/min	
WELL TYPE: FI	LUSH MOUNT	ABOVE C	GRADE	<i>;</i>		COMME	A 11 h	7/	
LOCKING CAP	- '	YE	es/_	NO	- ,	- 10ll-		755 M	_
PROTECTIVE POS	ST/ABUTMENT	YE	ES	_NO_/		82 160 255 M	2 - X	- 1866	
NONPOTABLE LA	ABEL	YE	es	_NO					
ID PLATE		YE	es	NO					<u>.</u>
WELL INTEGRITY	Y SATISFACTO	RY YE	ES	NO		 			
WELL YIELD LO	OW	MODERA?	TE /	HIGH					_
Elapsed	Depth to		Cond.	Turbidity	Dis. O2	Temp	ORP		
Purge Time (in minutes)	Groundwater	рН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes	
Initial Reading	717	Cag	0.261	1390	0.02	17.67	179		
Mist	TOUC	6.99	-	201.0	000	17117	168		1
10.88 15mm	71.35	- 		255.0	0.00	17.40	1.43		1
	11.65	7.45		302.0	0.00	17.35	29	K +0 100 mi	te
ZO.m12	11.40	763		1	0.00	17.50	5(7-60 (01) Mg	A MARIE
25 min	11.31	756			· · · · · · · · · · · · · · · · · · ·	17.49	46	Crier to reading	
30~1~	1110	700	07.07	W 11	-1, 1, 1	1.7.7.		110011111	
,			1						1
]
				·					1
	3					<u> </u>			7



	AMEC PROJECT	NUMBER 6	<u> </u>	12-00	()	ONITORIN		JMBER	MW-355
	SITE NAME //	ike Sparta	n bury DA	TE / () - 2	2-1/L T	IME OF SA	MPLE	1120	0 41 61
	FIELD PERSONN	EL // H			W	EATHER C	ONDITION	s_ <i>73°</i>	Partly Cloud
	TOTAL WELL DE SCREENED INTE DEPTH TO GROU LENGTH OF WAY CASING DIAMET ONE STANDING (NOTE ½" = 0.010 THREE STANDIN METHOD OF WE TOTAL VOLUME WELL TYPE: FLOCKING CAP PROTECTIVE PONONPOTABLE LID PLATE WELL INTEGRIT	EPTH (TWD) RVAL INDWATER (DO IER COLUMN (I TER WELL VOLUME ING WELL VOLU ILL EVACUATION OF WATER REFLUSH MOUNT INST/ABUTMENT ABEL	GW)	3 10 VD - DGW = 3 gal. 2 0.041G/F 2 5 5	measured / wel _MEASURI =	I tag / driller ING POINT G/FT: 4" = ANDING WI TYPE GAL. FLOT	s log/ previo FOR DEPTI 0.653 G/FT ELL VOLUM E W RATE	thus report $-\mathbf{ci}$ $H = \int \mathbf{ci}$ $\mathbf{ci} \cdot \mathbf{ci} \cdot \mathbf{ci} \cdot \mathbf{ci}$ $\mathbf{ci} \cdot \mathbf{ci} \cdot \mathbf{ci}$ $\mathbf{ci} \cdot \mathbf{ci} \cdot \mathbf{ci} \cdot \mathbf{ci}$	rcle one)
	WELL YIELD I				HIGH				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	Вq	Cond. (μS/cm)	Turbidity (NTU)	Dis. O ₂	Temp (°C)	ORP (mV)	Notes
1055		2.05	6.03	0.999	84,7	2.90	22.83	381	
	1105	8,36	6/16	0,685	52.8	1.89	22.73	240	
	1110	8,42		0.683		1,42	22,74	177	
	1115	8.45	6.15	0.68	9.9	1.81	Sd.1K	110	
						-	-		



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-10	2										
SITE NAME Duke Sportsobus DATE 10/3/12 TIME OF SAMPLE 12:00											
FIELD PERSONNEL RODOR COCK WEATHER CONDITIONS P. Cloudy/light 10											
TOTAL WELL DEPTH (TWD) 18,54 FT. (measured / well tag) drillers log/ previous report - circle one)											
SCREENED INTERVAL 8.51 - (8.5) MEASURING POINT FOR DEPTH TOC											
DEPTH TO GROUNDWATER (DGW) 11.58											
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =											
CASING DIAMETER Z IN.											
ONE STANDING WELL VOLUME =gal.											
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)											
THREE STANDING WELL VOLUMES = $\frac{3.3}{}$ FIVE STANDING WELL VOLUMES = $\frac{3.3}{}$											
METHOD OF WELL EVACUATION: BAILER (PUM) OTHER: TYPE peristatic (low flow)											
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE ML/min											
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS											
1948 per 255 mil How rato											
PROTECTIVE POST/ABUTMENT YES NO NO NO X X 141 m/min	·										
NONPOTABLE LABEL YESNO											
ID PLATE YESNO											
WELL INTEGRITY SATISFACTORY YESNO											
WELL YIELD LOWMODERATEHIGH											
Elapsed Depth to Cond. Turbidity Dis. O2 Temp ORP Notes											
Purge Time Groundwater pH (uS/cm) (NTU) (mg/L) (°C) (mV) Notes											
(in minutes) (in minutes) (in minutes) (2.30 5.92 0.444 404.0 0.22 20.93 170	********										
C 12 25 674 0440 1870 000 7050 185											
10 12.50 5.75 0.436 154.0 0.00 20.47 186 15.72 5.80 0.435 119.0 0.00 20.42 187	\dashv										
The state of the s	8										
	75										
25mn 13,08 5,90 0.463 54.3 0.00 20.77 148	\dashv										
Bonu 13.05 6.03 0479 34.9 0.00 20,82116	-										
	-										



AMEC PROJECT NUMBER 62	28-12-0	150C	M	ONITORING	3 WELL NU	MBER /	MW 10 D
SITE NAME Duka Sportant	DATE	10/3	/12 T	ME OF SAI	MPLE	121	15
FIELD PERSONNEL Rodney		, ,	<i>!</i> W	EATHER CO	ONDITIONS	P.Co	udy_
0	•			_			•
TOTAL WELL DEPTH (TWD)	39	FT. (me	asured (well	tag/ drillers	s log/ previou	ıs report – ci ı	rcle one)
	4-39		_MEASURI	NG POINT	FOR DEPTH	TO	C
DEPTH TO GROUNDWATER (DG	w) <i>j_l</i>	1.05					
LENGTH OF WATER COLUMN (I	WC) = TWD	– DGW =	2	<u> </u>			
CASING DIAMETER 2	N.						
ONE STANDING WELL VOLUME		gal.					
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.02			: 2" = 0.163	G/FT: 4"=	0.653 G/FT:	6" = 1.46 G	/FT)
THREE STANDING WELL VOLUM	1-	, —	_ FIVE STA			_)A
METHOD OF WELL EVACUATIO		ER PUM) P / OTHER:	TYPE	perist	Atric Co	entlow)
TOTAL VOLUME OF WATER RE			G	AL. FLOV	W RATE	158	mL/min
WELL TYPE: FLUSH MOUNT /		ADE)		•	COMME		
LOCKING CAP	YES_	//	_NO	<u></u>	255 m	= X	x=158
PROTECTIVE POST/ABUTMENT	YES_		_NO/_	<u>```</u>			
NONPOTABLE LABEL	YES_		_NO				
ID PLATE	YES _	'	_NO				
WELL INTEGRITY SATISFACTO	RY YES_		_NO				
WELL YIELD LOW	MODERATE	<u> </u>	HIGH_		_		
Elapsed Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
Purge Time Groundwater (in minutes)	n H	μS/em)	(NTU)	(mg/L)	(°C)	(mV)	Notes
Initial Reading // 80	G.82 C	1267	1/5.0	0.07	19.42	SZ	
	6.91C						
11300	7.15					-31	
	7.31 0	2011	20.0	0.00	19.17	-6S	Empley cel
	7.49 0	· 20 2	7/1'2	1.24	18.65		wyry cer
20min 1190	7.49 C	25	144	1.29	6.93		
	·						
							•
			<u></u>				
		i					1



AMEC PROJECT	NUMBER 62	18.12	.0021	M	ONITORIN	G WELL N	UMBER	MW-115	
SITE NAME \mathcal{D}		anbulgo	TE $D/2$	1	IME OF SA		1130		
FIELD PERSONN	17	lacin	Clark	7			s Raigheav	les areconstit /Sco	nia
TIEED TERSONN	1400	org:	. <u> </u>	· · · · · · · · · · · · · · · · · · ·			~ <u> </u>	ing sessing in from	//
TOTAL WELL DI	EPTH (TWD)	4.60	FT. (n	neasured/wel	l tag) driller	rs log/ previo	ous report – ci	rcle one)	
SCREENED INTE	•	4.6-			_ Tarana	FOR DEPT	_		
DEPTH TO GROU		iw) /	1.40		•				
LENGTH OF WA	•		VD – DGW :	= 3	. 2_				
CASING DIAME	_						-		
ONE STANDING		30.	5 gal.						
$(NOTE \frac{1}{2})^{2} = 0.01$				$T \cdot 2" = 0.163$	G/FT: 4"=	0.653 G/FT	: 6" = 1.46 G	;/FT)	
THREE STANDIN						ELL VOLUN		2. S	
METHOD OF WE			The state of the s	OTHER:			Mic Clou	Alora)	
TOTAL VOLUM			· ·		AL. FLO	•	40	mL/min	
WELL TYPE:	The state of the s						ENTS PUL	zed dry @	lud.
LOCKING CAP	TEOSIT MOORY	,		, NO		colla	of Sam	No reading	<u> </u>
PROTECTIVE PO	SCT/ADITTMENT			NO V	/	price	to colle	ctive sample	
NONPOTABLE I		YE		NO NO		- cullou	pol / h	c of cool	<u> </u>
	ADEL	YE		NO NO		-puraed	les duana	-s ampling for	Color
ID PLATE			~	NO NO		- pad	cracko	Dall Get VO	GISVI
WELL INTEGRIT	,			NO HIGH		1500-	Collect 5	VOCs and VC	Cc
WELL YIELD	LOW	MODERA'	IE	HIGH _			only one	-SVOC purge	doly
Elapsed Purge Time	Depth to	рH	Cond.	Turbidity	Dis. O2	Temp	ORP	Notes	''
(in minutes)	Groundwater		(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)		
Initial Reading	11.40	460	0.394	888.0	10.15	21.42	229		
5	12.76	3,90	0.517	7/000	0.00	21.41	281	1 6	
10	13.45	3.96		71000	0.00	21.47	280	Compto flow	†
15	14.05	11.35	0407	605.0		21.56	249		
20	14.35	4.34		526.0	5.10	21.87	243		
25	14.40(xi		-43	472.0	4.98	22.49	243	Pergeddray	1
25	1. Toksy	1 72	0.089	CCI	991-	21170	-	enc ofer	-] -
Sample	MMQ	4.41	0,451	301	1161	76 16	233	7	
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	MA	- 4 7 01	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ر د په ر	11.467	Service (1)		<u> </u>	
								, ca.,j	
1		1	Į		_	L			



		MONITO	KING WI	ELL SAN	IPLING F	LELD DA	TA WOR	KSHEET		
Al	MEC PROJECT	NUMBER 627	28-12-	-002	. <u>)</u>	ONITORIN	G WELL N	JMBER /	NW-111	
		her Sportan			1.0	TME OF SA		143		
	ELD PERSONN	1 .	H	Clark		EATHER C	ONDITION	s Rain in	AM/Sunna	
								., .		
ТС	OTAL WELL DI	EPTH (TWD)	1/2	FT. (n	neasured / wel	ll tag / driller	rs log/ previo	us report – ci	ircle one)	
SC	CREENED INTE	ERVAL Z	6.2-	31.2	MEASUR	NG POINT	FOR DEPTI	TOC	<u>~</u>	
Di	EPTH TO GRQU	UNDWATER (DO								
LF	ENGTH OF WA	TER COLUMN (1	LWC) = TW	'D – DGW :	= 19.0	18				
CA	ASING DIAME	TER Z	IN.							
O	NE STANDING	WELL VOLUMI	E= 31	$\frac{3}{2}$ gal.						
(N	NOTE ½" = 0.010	02G/FT: ¾" = 0.0	23 G/FT: 1"	= 0.041G/F	T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	: 6" = 1.46 C	6/FT)	
TI	HREE STANDII	NG WELL VOLU	MES =	7.9	FIVE STA	ANDING WI	ELL VOLUN	1ES =	<i>JA</i>	
M	ETHOD OF WE	ELL EVACUATIO	N: BA	ILEN / PUN	MP/OTHER:	TYP	E periet	offic Ci	low flow)	-
Т	OTAL VOLUMI	E OF WATER RE	MOVED: _	- 1.5	<u> </u>	GAL. FLO	W RATE	100	mL/min	
W	ELL TYPE: 🚺	FLUSH MOUNT	ABOVE G	RADE	, , , , , , , , , , , , , , , , , , ,		COMME	ENTS		- 0 -
LC	OCKING CAP		YE	s_ <i>V</i>	NO	 	- NW-1	ID locate	ed appx 8	
PI	ROTECTIVE PO	OST/ABUTMENT	YE	S	NO / _		town	ds crea	26 from MU	<u> リリ</u> S
N	ONPOTABLE L	ABEL	YE	s	NO		- Bazir	1 sampl	ing @ 14	<u>35</u>
ID	PLATE .		YE	s	NO			, ,	//	
W	ELL INTEGRIT	ΓΥ SATISFACTO	RY YE	s/	NO		- vegeto	ction high	hindraly 00	<u>idnot</u>
W	ELL YIELD I	LOW	MODERAT	E	HIGH _		<u>—</u>	,	find	
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP		
	Purge Time (in minutes)	Groundwater	рĦ	(μS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes	100 100 100 100 100 100 100 100 100 100
בחנג נייגע	Initial Reading	11.35	6.52	0358	42.8	6.88	20.30	<i></i>		
14:24			Second Control	 		0.00	19.52	30		-
`	5 min	12.60 13.09	669 6.92	••		0.00	19.36	39 35	,	-
14:29	,		r r			0.00	1 1	31 (Engly flow thro	Marke
14:39	Sun	13.39			6.7	5,30	19.13 18.78	19	- Mystry +lace TMO	CON read
¥.34			フリチ マ39			-	18.93	13		-
	25mm	13,35	7,27	0000	14.1	6.00	10.17			-
,										-
				<u> </u>					-	1
			l							\dashv



Dup-1

AMEC PROJECT NUMBER 6/28 - 12002 MONITORING WELL NUMBER / 1W - 125									
SITE NAME OUKE-Spartan burg DATE 10-2-12 TIME OF SAMPLE 1440									
FIELD PERSONN	\ -			W				y 75°	_
TOTAL WELL D	EPTH (TWD)	1212	FT_(%	neasured / wel	_			•	
SCREENED INTI	ERVAL		77	MEASURI	ING POINT	FOR DEPTI	H_ 70	<u> </u>	
DEPTH TO GRO	UNDWATER (D	GW) <u>1/</u>	72						
LENGTH OF WA	TER COLUMN ((LWC) = TV	WD – DGW :	=	2,35				
CASING DIAME			7						
ONE STANDING									
(NOTE $\frac{1}{2}$ " = 0.01									
THREE STANDI						71		ري.	
METHOD OF WI									
TOTAL VOLUM				(lAL. FLO				
WELL TYPE	FLUSH MOUNT			,		COMME	ENTS		_
LOCKING CAP			ES	NO					
PROTECTIVE PO			ES	_					
NONPOTABLE I	ABEL			NO					_
ID PLATE	ኮህ ር ልጥነር <u></u> ይል <i>ርሞር</i>		ES <u> </u>	NO NO					_
WELL INTEGRIT									
William Co. Co. Co. Co. Co. Co.	LOW	MUDEKA.	16	HJGR _					1
Elapsed Purge Time	Depth to	рН	Cond.	Turbidity	Dis. O ₂	Temp	ORP	Notes	
(in minutes)	Groundwater		(µS/em)	(UTV)	(mg/L)	(°C)	(mV)		
Initial Reading	110	6.31	0,699	155	\mathcal{I}	20.07	~71)		
1408	A 400								
	5.18	6.16	0.484	114	0	20,54	-38		_
1418	5,2	5.16	0.484	109	000	20.54	96		_
1418	5.18 5.2 5.18	5.16	0.484 0.206 0.206	109	00	20.54 20.92 20:96	103		_
1418 1428 1433	5,2	5.16 5.16 5.15	0.484 0.206 0.206	109 110 112	00	20.54	96 103 105		
1418	5,2	5.16 5.16 5.15	0.484 0.206 0.206	109 110 112	0	20.54 20.92 20:96	103		
1418 1428 1433	5,2	5.16 5.16 5.15	0.484 0.206 0.206	109 110 112	00	20.54 20.92 20:96 21.01	96 103 105		
1418 1428 1433	5,2	5.16 5.16 5.15	0.484 0.206 0.206	109 110 112	00	20.54 20.92 20:96 21.01	96 103 105		
1418 1428 1433	5,2	5.16 5.16 5.15	0.484 0.206 0.206	109 110 112	00	20.54 20.92 20:96 21.01	96 103 105		



A .	MEC DDAIECT	NUMBER_62	28-1	7-002	1 м	ONITORING	G WELL NU	MBER A	1W-120		
		kp Sparta							1345		
	ELD PERSONN	7				EATHER C	ONDITION:	7500	Partly Clou		
1.1	ELD I ERSOITE								· /		
\mathbf{T}	OTAL WELL DE	EPTH (TŴD)s	35.42	FT. (n	easured / wel	l tag / driller	s log/ previo	us report – ci r	cle one)		
S	CREENED INTE	RVAL			MEASURI				<u></u>		
D	EPTH TO GROU	JNDWATER (DO	(W)	4.95							
L	ENGTH OF WA	ΓER COLUMN (Ι	LWC) = TV	VD – DGW :	<u> </u>	147					
	LENGTH OF WATER COLUMN (LWC) = TWD – DGW = 30.47 CASING DIAMETERIN.										
О	ONE STANDING WELL VOLUME = 4,99 gal.										
(1)	NOTE 1/2" = 0.010	$0.02G/FT: \frac{3}{4}" = 0.02$	23 G/FT: 1'	= 0.041 G/F							
		NG WELL VOLU					ELL VOLUN	1ES =2	5		
N	METHOD OF WE	LL EVACUATIO	N: BA	ILER/PUN	IP OTHER:		:_\$C	•			
Т	OTAL VOLUME	OF WATER RE	MOVED: _			AL. FLO	W RATE		mL/min		
V	VELL TYPE: (F	LUSH MOUNT					COMMI	ENTS			
L	OCKING CAP		YI	ES							
P	ROTECTIVE PO	ST/ABUTMENT	YI	ES	NO	<u>-</u>					
N	IONPOTABLE L	ABEL	YI	ES	NO						
11	D PLATE		YI	ES	NO						
		Y SATISFACTO		ES	NO						
V	VELL YIELD I	LOW	MODERA'	TE	HIGH _						
	Elapsed	Depth to		Cond,	Turbidity	Dis. O ₂	Temp	ORP	Notes		
	Purge Time (in minutes)	Groundwater	рH	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)			
1325	Initial Reading	4,95	6,24	0.999	6,7	7.93	21.22	236			
ישיבי	1330	4.98		0,475	2,9	0,04	18.85	203			
	1335	6.15	5,96	0,476	7.2	0.0	18,90				
	1340	6.7	592	0474	4.8	0.0	18,86	199			
	10-10		1,2 4,1		2			·			



MONITORING WELL SAMITEING FIELD DATA WORKSHEET										
AMEC PROJECT NUMBER 6228-12 -002/ MONITORING WELL NUMBER MW-13 5										
SITE NAME DURO Spartanburg DATE 10/3/12 TIME OF SAMPLE 1445										
FIELD PERSONNEL RODOW (Lark WEATHER CONDITIONS P. CLOUDY)										
TOTAL WELL DEPTH (TWD)FT. (measured / well tag / drillers log/ previous report – circle one)										
SCREENED INTERVAL 5.02-15.02 MEASURING POINT FOR DEPTH 10C										
DEPTH TO GROUNDWATER (DGW) 7.38										
LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 7.64										
CASING DIAMETERIN. / 3										
ONE STANDING WELL VOLUME = /o > gal.										
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1" = 0.041G/FT: $\frac{1}{2}$ " = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)										
THREE STANDING WELL VOLUMES = FIVE STANDING WELL VOLUMES =										
METHOD OF WELL EVACUATION: BAILER / PUMP) OTHER: TYPE peristaltic (low flow)										
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE ML/min										
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS Groundwater contains										
LOCKING CAP YES NO Slaen and petroleypothe addr										
PROTECTIVE POST/ABUTMENT YES NO PRODUCT ON TUDING										
NONPOTABLE LABEL YES NO										
ID PLATE YES NO NO										
WELL INTEGRITY SATISFACTORY YESNO										
WELL YIELD LOW MODERATE HIGH										
Elapsed Depth to pH Cond. Turbidity Dis. O2 Temp ORP Notes										
(in minutes) Groundwater (µS/cm) (N10) (nig/L)										
Initial Reading 7.41 6.20 0.395 98,7 0.84 20,77 4										
7.56 5.52 0.594 73.8 0.00 20.54 32										
\$ 10, 7.62 5.76 0.614 63.7 0.00 20.40 12										
15 n. 7.62 6.05 0.669 70.6 0.00 20.39 -1 20, 7.62 6.08 0.675 70.9 0.00 20.41 -2 560 purgerate										
20m 7.62 6.08 0.675 70.9 0.00 20.41 -2 Stow purgerate										

1416



AN OF CITE OF A THE COURT	Can 12 cm2		IONITORIN	C WELL M	IN ADED	MW-13 D	
amec project number <u> </u>	. /	/ / .	TME OF SA		ISUC)	_
		-			s P. Cle		
FIELD PERSONNEL Rod	voil nour	N	EATHER C	ONDITION	3 <u>1.018</u>	9	
TOTAL WELL DEPTH (TWD) _ SCREENED INTERVAL	35,4 _{ft.} 30,4-35,0	(measured/we				ircle one)	_
DEPTH TO GROUNDWATER (DGW) <u>'8,88</u>	<i></i>					
LENGTH OF WATER COLUMN		$v = \underline{2e}$	5,52		_		
	IN.						
ONE STANDING WELL VOLU	$ME = \frac{4}{2} gal$						
(NOTE ½" = 0.0102G/FT: ¾" = 0).023 G/FT: 1"= 0.041G	/FT: 2" = 0.163	G/FT: 4"=	0.653 G/FT	: 6" = 1.46	G/FT)	
THREE STANDING WELL VO	LUMES = 12.6	FIVE STA	ANDING WI	ELL VOLUM	MES =		
METHOD OF WELL EVACUAT	TION: BAILER P	JMP OTHER:	TYP	E_ 0 000'S	toffice	lowflow)	
TOTAL VOLUME OF WATER	REMOVED:	<u> </u>	AL. FLO	W RATE	168_	mI/min acc	l-filla
WELL TYPE: FLUSH MOUN	T / ABOVE GRADE	<i>/</i>		COMMI	ENTS STAR	- Day	
LOCKING CAP	$_{ ext{YES}}$ $ u$	NO		we	11/remo	red pump &	pbirg,
PROTECTIVE POST/ABUTME	NT YES	NO		-large	e gent v	rest adjace	in to
NONPOTABLE LABEL	YES	NO		te U	<u>el</u>	100	
ID PLATE	YES	, NO		91	<u>60</u> >	c=168	
WELL INTEGRITY SATISFAC	TORY YES	NO					_
WELL YIELD LOW	MODERATE	HIGH		_			
Elapsed Depth to Purge Time Groundwate (in minutes)	pH Cond. (μS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp: (°C)	ORP (mY)	Notes	
Initial Reading 9,95	6.92 0.415	34.5	5.72	18.89	86		
Sna 11.12	(5.43	18.85	CKZ		
10 mm 12.58	626 0.412			18.81	110		1.
15 mm 14.30			5.02	18-80	107		
20mil 15.50			5.18	18.72	102	Stocy Purge Cost Ctoopy	100.00
25 m. 18.75			5,23	19.31	106		1 1/4
30mn 22.53			5.44	18.44	115	rate to come	ing
35mm 24.50		4 4 5 5	5.13	19.67	117		
40 mm DNM	DUM DUM			ONM	DNM		

Habilized a 25 by ble

- Recalibrate U-22 U-22 reading 43 Bon Calque Autral sha Recal = 0.0



AMEC PROJECT NUMBER 6228-12-0021 MONITORING W	VELL NUMBER $MW-13T$								
SITE NAME DUKE-SpartanburgDATE 10-3-12 TIME OF SAMPLE 1600									
FIELD PERSONNEL TLH WEATHER CONDITIONS 68° Cloudy									
TOTAL WELL DEPTH (TWD) 2).5 FT. (measured / well tag / drillers log	7								
SCREENED INTERVAL 6.5 - 21.5 MEASURING POINT FOI	R DEPTH / O/								
DEPTH TO GROUNDWATER (DGW)									
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{14.5}{}$									
CASING DIAMETERIN.									
ONE STANDING WELL VOLUME = 9,4 gal.									
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.65	53 G/FT: 6" = 1.46 G/FT)								
THREE STANDING WELL VOLUMES = $28 \cdot 10^{-10}$ FIVE STANDING WELL									
METHOD OF WELL EVACUATION: BAILER PUMP/OTHER: TYPE _	Peri								
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW R	RATEmL/min								
WELL TYPE: (FLUSH MOUNT) ABOVE GRADE	COMMENTS								
LOCKING CAP YESNO									
PROTECTIVE POST/ABUTMENT YESNO									
NONPOTABLE LABEL YESNO									
ID PLATE YESNO									
WELL INTEGRITY SATISFACTORY YESNO									
WELL YIELD LOWMODERATEHIGH									
Elapsed Depth to Cond. Turbidity Dis. O ₂	Temp ORP Notes								
	(°C) (mY) Ivotes								
6 Initial Reading 7.0 6.43 0.945 32.7 1.07 2	2.13 -13								
	1.86 - 21								
1546 7.4 6.16 0.981 11.2 0.19 2 1551 7.43 6.2 0.990 8.9 0.02 21	1.79 -26								
1556 7.49 6.230,989 5.5 0 21	1.75 -30								
1350 / 1 6 6 7 1 8 6 7 1									



	AMEC PROJECT	NIMBER 62	28-12	2-002) (M	ONITORIN	G WELL NU	MBER	MW-145	
	SITE NAME <u>[2</u>	7		16	7/17/ T	TME OF SA	MPLE	16:2	5	
	FIELD PERSONN	10-1		Clark	W	EATHER C	ONDITION	s P. Clou	ida /Rain in	
	FIELD FERSONN	EL 1000					91.			
	TOTAL WELL D	EPTH (TWD)	4.88	FT. (n	neasured / wel					
	SCREENED INTE		******		MEASURI -	ING POINT	FOR DEPTI	1 / 0	The same of the sa	
	DEPTH TO GRO				-					
	LENGTH OF WA			VD – DGW :	= <i>-f</i> .					
	CASING DIAME	TER	IN.	12		**,				
	ONE STANDING	WELL VOLUMI	E =	lo L-gal.						
	(NOTE ½" = 0.01	$02G/FT: \frac{3}{4}" = 0.0$	23 G/FT: 1'	'= 0.041G/F	T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	6" = 1.46 G	G/FT)	
	THREE STANDII	NG WELL VOLU	MES =	306	FIVE STA	ANDING W	ELL VOLUN	ÆS =		
	METHOD OF WI	ELL EVACUATIO	ON: BA	ILER PUN	OTHER:	TYP	E perista	affic		
	TOTAL VOLUM	E OF WATER RE	EMOVED: _	<u> </u>	<u> </u>	GAL. FLO	W RATE	100	mL/min	
	WELL TYPE:	FLUSH MOUNT	/ ABOVE C	BRADE	,		COMMI	ENTS		
	LOCKING CAP		YE	es Y	NO					
	PROTECTIVE POST/ABUTMENT YESNO									
	NONPOTABLE I	ABEL	YE	es	NO					
	ID PLATE		YE	ES	NO					
	WELL INTEGRI'.	ΓΥ SATISFACTC	RY YE	ES	NO					
	WELL YIELD			ге <u> </u>	HIGH					
	Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
Z.E		12 55 77	85.73	0.387	>1000	1.13	21.59	47_		
		8.15	4.60	0.291	71000	0.00	20.82	107	Afterending	
		8.23	4.00	0.176	216.0	506		BZ_	July 12	
	10	8.44	4.34	_		0.00	20,53	210	empty ff. COI	
	15	8.49		0.167	1600	5.31	20,49		empriz crcert	
	20_		4.13	0.100	l .	0.00	T	197		
	25_	8.50	4.74	0.124	28.5	41	20.48	209	After reading	
	30	8.49	4.74	- X-7			20,46		empto 1.1. Cell.	
	<u>3s</u>	8.53	4.92	0.153	14.5	5.21	20.40	175		
	I			İ						
1								-		



AMEC PROJECT NUMBER 6228	-12.0021	_MONITORING WEL	LNUMBER <u>MW-14D</u>
SITE NAME Duke Spartanbus	DATE 10/3/12		
FIELD PERSONNEL Rodae	Clark	_WEATHER CONDIT	TIONS P. Cloudy
U			
TOTAL WELL DEPTH (TWD) 34.	61 FT. (measured //	well tag drillers log/p.	revious report – circle one)
SCREENED INTERVAL 29.6!	- 34.61 MEAST	DRING POINT FOR D	
DEPTH TO GROUNDWATER (DGW)_	8.41	<u> </u>	, •
LENGTH OF WATER COLUMN (LWC)		26.2	
CASING DIAMETERIN.			
ONE STANDING WELL VOLUME =	4.3 gal.		
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/F	T: 1"= 0.041G/FT: 2" = 0.3	163 G/FT: 4" = 0.653 C	G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES =	<u> 12.8</u> fives	STANDING WELL VO	LUMES = A
METHOD OF WELL EVACUATION:	1		ristaltic (10w flew)
TOTAL VOLUME OF WATER REMOVE	ED:/. \$	_ GAL. FLOW RAT	E 100 mL/min
WELL TYPE: FLUSH MOUNT / ABO	VE GRADE	COl	MMENTS -bailer in well stred
LOCKING CAP	YESNO	<u>+0</u>	cap.
PROTECTIVE POST/ABUTMENT	YESNO		
NONPOTABLE LABEL	YESNO		
ID PLATE	YESNO		-
WELL INTEGRITY SATISFACTORY	YESNO		
WELL YIELD LOWMODE	RATE HIG	Н	4
Elapsed Depth to nH	Cond. Turbidit	y Dis. O ₂ Tem	ORP

Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C-)	ORP (mV)	Notes	
Initial Reading	9.01	6.81	0.375	42.6	2.13	18.11	36		
5	10.35	6.92	0.372	63.9	0.00	17.67	47		
10	12.90	6.95	0.366	147.0	0.00	17.52	94	4	30) 30)
15	19.34	7.01	0.363	168.0	0.00	17.54	94	A ·	
20	17,40	6.97	0.359	216.0	0.00	17.57	101		
25	19.18	7.00	0.357	233.0	0.00	17.51	90	j.	-
30	22,25	6.88	0.347	240.0	1.13	17.62	107	slow purgerate	ta.
35	Z3.55	6.82	0.362	5111	Z65	17.71	111		
40	23.48	6.85	0.399	3 <i>3</i> . <i>s</i>	7.01	17.72	114	to Aprile	
								,	

8:40



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-13	<u>5</u> _										
SITE NAME DUKE-Spartanburg DATE 10-3-12 TIME OF SAMPLE 925											
FIELD PERSONNEL TLY WEATHER CONDITIONS Cloudy 66											
TOTAL WELL DEPTH (TWD)15FT. (measured / well tag / drillers log/ previous report – circle one)											
SCREENED INTERVAL 5-15 MEASURING POINT FOR DEPTH 70C											
DEPTH TO GROUNDWATER (DGW) 2,9											
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{7.25}{}$											
CASING DIAMETER											
ONE STANDING WELL VOLUME = 1.12 gal.											
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)											
Three standing well volumes = 3.57 five standing well volumes = 5.95											
METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE PERIOD											
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATEmL/min											
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS											
LOCKING CAP YES NO Noticeable Sheen	+										
PROTECTIVE POST/ABUTMENT YES NO Odor											
NONPOTABLE LABEL YES NO											
ID PLATE YESNO											
ID PLATE YES NO											
WELL INTEGRITY SATISFACTORY YES											
WELL INTEGRITY SATISFACTORY YES NO WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. O2 Temp ORP Notes Purge Time Groundwater pH (US/SW) (NTI) (mg/L) (*CC) (mV) Notes											
WELL INTEGRITY SATISFACTORY YES NO WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. O2 Temp ORP Purge Time Groundwater (µS/cm) (NTU) (mg/L) (°C') (mV) Notes											
WELL INTEGRITY SATISFACTORY YES NO WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond, Turbidity Dis. O2 Temp ORP Notes (in minutes) Initial Reading 7.14 6.37 0.55 29.1 3.95 19.65 78											
WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond, Turbidity Dis. O2 Temp ORP Notes (in minutes) Initial Reading 7.19 6.37 0.55 29.1 3.95 19.65 - 18 912 7.15 6.10 0.458 17.9 0 19.63 - 4											
WELL VIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. O ₂ Temp ORP Notes (in minutes) Groundwater (µS/cm) (NTU) (mg/L) (°C) (mY) Notes Initial Reading 7.19 6.37 0.55 29.1 3.95 19.65 - 18 912 7.15 6.10 0.458 17.9 0 19.63 - 9											
WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond, Turbidity Dis. O2 Temp ORP Notes (in minutes) Initial Reading 7.19 6.37 0.55 29.1 3.95 19.65 - 18 912 7.15 6.10 0.458 17.9 0 19.63 - 4	2 (2 m. 1) (
WELL VIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. O ₂ Temp ORP Notes (in minutes) Groundwater (µS/cm) (NTU) (mg/L) (°C) (mY) Notes Initial Reading 7.19 6.37 0.55 29.1 3.95 19.65 - 18 912 7.15 6.10 0.458 17.9 0 19.63 - 9	1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2										
WELL VIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. O ₂ Temp ORP Notes (in minutes) Groundwater (µS/cm) (NTU) (mg/L) (°C) (mY) Notes Initial Reading 7.19 6.37 0.55 29.1 3.95 19.65 - 18 912 7.15 6.10 0.458 17.9 0 19.63 - 9											
WELL VIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. O ₂ Temp ORP Notes (in minutes) Groundwater (µS/cm) (NTU) (mg/L) (°C) (mY) Notes Initial Reading 7.19 6.37 0.55 29.1 3.95 19.65 - 18 912 7.15 6.10 0.458 17.9 0 19.63 - 9											
WELL VIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. O ₂ Temp ORP Notes (in minutes) Groundwater (µS/cm) (NTU) (mg/L) (°C) (mY) Notes Initial Reading 7.19 6.37 0.55 29.1 3.95 19.65 - 18 912 7.15 6.10 0.458 17.9 0 19.63 - 9											
WELL INTEGRITY SATISFACTORY YES NO WELL YIELD LOW MODERATE HIGH Elapsed Purge Time (In minutes) Depth to Groundwater (In minutes) Order (In minutes)											



AMEC PROJECT	NUMBER 6	128-1	2-150	2 <u>1 </u>	ONITORIN	IG WELL N	JMBER	1W-15X	2		
_	nke Spac						840				
FIELD PERSON	ر و وسنظی						s Clouc	N 66			
		A						7	_		
TOTAL WELL DEPTH (TWD) 34.60 FT. (measured / well tag / drillers log/ previous report – circle one)											
SCREENED INTERVAL 29.6 - 34.6 MEASURING POINT FOR DEPTH /OC											
DEPTH TO GROUNDWATER (DGW) $\frac{8.28}{2.000}$											
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{26.3}{3}$											
	CASING DIAMETERIN.										
ONE STANDING	WELL VOLUM	E= <u> 4,</u>	3 gal.								
`	02G/FT: ¾" = 0.0										
THREE STANDI	NG WELL VOLU	/MES =	12.43	FIVE STA				1,55			
METHOD OF W	ELL EVACUATIO	ON: BA	ILER PUN	MP) OTHER:	TYP:	е <i>_ Рег</i>	<u> </u>				
TOTAL VOLUM	E OF WATER RE	MOVED: _	1.59	· (JAL. FLO	W RATE		mL/min			
WELL TYPE:	FLUSH MOUNT	ABOVE (GRADE			COMMI					
LOCKING CAP		YE	ES	NO		No	ticeable	Odar			
PROTECTIVE PO	OST/ABUTMENT	r YE	ES	NO							
NONPOTABLE I	LABEL	YF	ES	OM							
ID PLATE		YE	ES	NO							
WELL INTEGRI	TY SATISFACTO	RY YE	Es	NO							
WELL YIELD	LOW	MODERA	FE	HIGH _							
Elapsed	Depth to		Cond.	Turbidity:	Dis. O ₂	Temp	ORP				
Purge Time (in minutes)	Groundwater	PΗ	(μS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes			
Initial Reading	0,27	6.64	0.615	14.1	1.77	18.08	-70	The state of the s			
777	1 Co	4/2	0.600		0	17.44	~75		\exists		
835	10.05	117	0.599	7.8	0	17 97	-75		\dashv		
238	10.03	117	0.599	8.4		17.92	- 79		\dashv		
420	1005	6 67	V311	011		11.14	1-1		\dashv		
									\dashv		
									\dashv		
									\dashv		
								1			
i				1							



1	AMEC PROJECT	NUMBER 62	28-12	-DOZ	M	ONITORIN	IG WELL N	UMBER	MW-165
	^	ike-Spatta	,		7-17 I	IME OF SA		200	
	FIELD PERSONN	· ·	4	1.2	W.	EATHER C	CONDITION	s 68°	Cloudy
_	TELED TEXASOTT		 		···				7
,	PATATATETT D	EPTH (TWD)	12.3	ς _{ετ (n}	anmirad / wa	II too / drille:	re log/ previo	vus renort – ci	rcle one)
		erval <u> </u>			MEASUR			معينين ا	
					WEASUK	ING POINT	FOR DEFT.		
Ţ	DEPTH TO GRO	UNDWATER (DO	jW) .	1,21	7/) /			
		TER COLUMN (WD DGW :	=	/ G		_	
		TER 2	صو						
		WELL VOLUM		gal.					
	•	$02G/FT: \frac{3}{4}$ " = 0.0							
7	THREE STANDII	NG WELL VOLU	MES =	1.5	FIVE STA			$MES = \frac{\lambda}{2}$.5
1	METHOD OF WI	ELL EVACUATIO	ON: BA	AILER PUN	/IP //OTHER:	TYP	E	201	
7	TOTAL VOLUMI	E OF WATER RE	EMOVED:		(BAL. FLO	W RATE		mL/min
7	WELL TYPE:	FLUSH MOUNT	/ ABOVE (GRADE			COMM	ENTS	
J	LOCKING CAP		YI	ES	NO		,		
J	PROTECTIVE PO	OST/ABUTMENT	YI	ES	NO				
1	NONPOTABLE I	_ABEL	Y	ES_	NO				
	D PLATE			ES	NO NO				
		TY SATISFACTO		ES	NO				
		LOW			HIGH				
			IMODERCI						
	Elapsed Purge Time	Depth to	рH	Cond.	Turbidity	Dis. O2	Temp	ORP	Notes
	(in minutes)	Groundwater		(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
1135	Initial Reading	15.74	559	0.232	74.6	3.67	22.22	231	
	1145	15.62	5.59	1,277	23.3	· · · · · · · · · · · · · · · · · · ·	21.78	767	
₩	1150	15.59	Γ / γ	A 777	9,3	0.9	21.78	258	
	1130	15.59	6 /11	0.334	7,8	0,9	21.83		
	1123	12:31	267	0,331		011	71.07	αJJ	



AMEC PROJECT NUMBER 6228-12-0021	MONITORING WELL NUMBER $MW-160$
SITE NAME Duke-Spartan burgDATE 10.3-	12 TIME OF SAMPLE 1235
FIELD PERSONNEL TLH	WEATHER CONDITIONS 68°C1644
TOTAL WELL DEPTH (TWD)FT. (measu	
SCREENED INTERVAL 26.5-31.5 M	EASURING POINT FOR DEPTH
DEPTH TO GROUNDWATER (DGW)15.72	
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =	15.78
CASING DIAMETER _ ZIN.	
ONE STANDING WELL VOLUME = $\frac{2.58}{\text{gal}}$.	
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2"	= 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
Three standing well volumes = $\frac{2.24}{}$ F	IVE STANDING WELL VOLUMES = //
METHOD OF WELL EVACUATION: BAILER / UMP)	OTHER: TYPE Veri
TOTAL VOLUME OF WATER REMOVED:	GAL. FLOW RATEmL/min
WELL TYPE: FLUSH MOUNT / ABOVE GRADE	COMMENTS
LOCKING CAP YESNO	
PROTECTIVE POST/ABUTMENT YESNO	0
NONPOTABLE LABEL YESNO	O
ID PLATE YESNO	0
WELL INTEGRITY SATISFACTORY YESNO	0
WELL YIELD LOWMODERATE	_HIGH
Elapsed Depth to Tu Cond. Tu	rbidity Dis. O ₂ Temp ORP Notes
	NTU) (mg/L) (°C) (mV) Notes
2 Initial Reading 15.72 6.860.341 6	3.6 1.71 20.72 97
	5.5 0.26 20.5 -0
1228 15.3 6.83 0.335 1	1.3 0,25 20.46 - 11
1233 15.31 6.81 0.335 8	2.6 O.1 20.49 - 15



А	MEC PROJECT	NUMBER_	28-1	7-002	M	IONITORIN	G WELL NU	JMBER	MW-175
S	TE NAME	nke-Spart	an haraDA	TE/0-2-	. / 7 T	IME OF SA	MPLE /	605	
	ELD PERSONN		2.00		W.	/EATHER C	CONDITIONS	Clou	dy 790
-	LLD I ERBOTTI								
т	OTAL WELL DE	EPTH (TWD)	15.15	FT/m	easured Dwel	ll tag / drille:	rs log/ previo	us report – ci	rcle one)
	CREENED INTE	,	15		_	-	FOR DEPTH		,
		JNDWATER (DO		3,45		· -			-
		TER COLUMN (I			= 11.7				
	ASING DIAMET	<i></i> 1							
		WELL VOLUMI		12 oal					
		$0.02G/FT: \frac{3}{4}$ " = 0.02			T: 2" = 0.163	G/FT: 4"=	: 0.653 G/FT:	6" = 1.46 G	/FT)
		NG WELL VOLU							1-6
		LL EVACUATIO			OTHER:		E Pe		
		E OF W <u>ATER</u> RE			~ i				mL/min
		LUSH MOUNT			```	37112. 1220		ENTS	
	OCKING CAP	LOSIT MOONT	•	es	NO				
		ST/ABUTMENT		ES	NO /				
	ONPOTABLE L			es /	NO NO	<u> </u>			
	ONI OTABLE E DPLATE	ADLL		es	NO				
		Y SATISFACTO		es	NO NO				
		LOW		•			,,		
V			WODLAN						
	Elapsed Purge Time	Depth to	pН	Cond,	Turbidity	Dis. O ₂	Temp	ORP	Notes
	(in minutes)	Groundwater		(μS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
15.40	Initial Reading	3,45	6.22	0,522	30.8	0.54	22,34	121	
	1550		5.84	0.507	25,2	0.47	23.15	150	
	1555	4,52	5,87	0.448	12,7	1,47	23.03	-	
	1600	4.6	5.91	0,491	8,3	1.48	23.1	179	
			-12 1		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				



A 'N /	፲፰፫ ወደብፑሮፕ ፤	number <u>6224</u>	3-12-1	07.1	, , M	ONITORIN	G WELL NU	MBER	MW-185	_
CTT.	ENAME DAL	re Spactant	JUCENDA	TE 10/	1)	IME OF SA		1230		_
	LD PERSONN	Y /2 A		Carle.	~ / - /			Ranin	mounte (Sun	1/2
FIE	LD PERSONN	EL <u>; (70 0</u>			··	_				
ТО	TAL WELL DE	PTH (TWD)	14.8		easured/wel				rcle one)	
SC	REENED INTE	RVAL	4.88	-14.88	<u>S</u> measuri	NG POINT	FOR DEPTI	1 70C		_
		INDWATER (DO		4.13						
LE	NGTH OF WAT	TER COLUMN (I	LWC) = TV	VD – DGW =	=_1():-	+5				
	SING DIAMET	_								
ON	IE STANDING	WELL VOLUME	3 = 07	25 gal.						
(N	OTE ½" = 0.010	2G/FT: ¾" = 0.02	23 G/FT: 1'	'= 0.041G/F	$\Gamma: 2" = 0.163$	G/FT: 4"=	0.653 G/FT:	6" = 1.46 G	/FT)	
		G WELL VOLU					ELL VOLUN		75 2	
		LL EVACUATIO			POTHER:	TYP	e <u>perist</u>	altic (10cm flow)	
TC	TAL VOLUME	OF WATER RE	MOVED: _	0.7	<u> </u>	AL. FLO	W RATE	100_	mL/min	
		LUSH MOUNT			,		COMMI	ENTS		
LC	OCKING CAP		YE	es/_	NO	<u></u>	X Sample	e SVOC	s first, the	^
PR	OTECTIVE PO	ST/ABUTMENT	YE	ES	_NO	·	collec	t sampl	e reading	
NO	ONPOTABLE L	ABEL	YE	es _ 🖊	NO		6660	poiso	to oblect	12-5
ID	PLATE		YE	es_/	NO	(Fe.	My mot	2/5,00	cs, and	_0
W	ELL INTEGRIT	Y SATISFACTO	RY YE	es	NO		No.	, SO, A	lk.	- 2
		LOW		ΓE	HIGH_		W. me	ter conta	ins tree-produ	KT
Г	Elapsed									
	Purge Time	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
	(in minutes)				X 1					
12:04	Initial Reading	4.13	463	0.101	195.0	3.12	21.59	253		
12.7	10 4	W 19	236	0.087	150.0	<i>()-0</i> 0.	2157	299	0 11 0 11	.//
12.79	16	4.30	11.11	0.087	149.0	0.00	21.87	296	Comptly flow the	
12:26	23	4.30	4.24	0.085	144.0	0,00 _	21.67	294	Empty flow to	væl
2230	25	4.30	4.39	0.083	123.0	6.23	21.67	290	/	_
	35	DNM	473	0.089	55.1	9.91	24.39	266	*	<u> </u>
ļ										1
ļ										
ŀ				· · · · · · · · · · · · · · · · · · ·				=		



	AMEC PROJECT	NUMBER 62	28-16	1-002	Z	IONITORIN	G WELL N	JMBER /	4W-18D
	SITE NAME D	ike spartan	DULA D	ATE 10-	2-12 I	TIME OF SA	MPLE		•
	FIELD PERSONN	T .			W .	EATHER C	CONDITION	s_73°	Cloudy
	TIED TEROU				· · · · · · · · · · · · · · · · · · ·			~	
	TOTAL WELL D		35,0	<u> </u>					ircle one)
	SCREENED INT			T T	MEASUR	ING POINT	FOR DEPT.	H	
	DEPTH TO GRO	UNDWATER (DO	3W)	V _ J	シム	19 C			
	LENGTH OF WA			WD – DGW	=	U3		-	
	CASING DIAME	TER	IN.	A A					
	ONE STANDING	WELL VOLUM	E=	9 gal.					
	(NOTE ½" = 0.01								
	THREE STANDI	NG WELL VOLU	MES =	14,4	FIVE STA	ANDING W	ELL VOLUM	$AES = \frac{\lambda^2}{2}$	1-93
	METHOD OF WI	ELL EVACUATIO	ON: BA	AILER PUN	MP/OTHER:	TYP:	E	eri	
	TOTAL VOLUM	E OF WATER RE	EMOVED:		<u>}</u> (GAL. FLO	W RATE		mL/min
	WELL TYPE:	FLUSH MOUNT	/ ABOVE (GRADE	<i>,</i>		COMMI	ENTS	
	LOCKING CAP		YI	ES	NO				
	PROTECTIVE PO	OST/ABUTMENT	YI	ES	NO				
	NONPOTABLE I	LABEL	ΥI	ES	NO				
	ID PLATE		YI	ES /	NO				
	WELL INTEGRI	TY SATISFACTO	RY YI	ES /	NO				
	WELL YIELD				HIGH				
	Elapsed Purge Time	Depth to	pН	Cond.	Turbidity	Dis. O2	Temp	ORP	Notes
	(in minutes)	Groundwater		(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
1208	Initial Reading	5.5	5.87	0.424	664	2.26	19,24	129	
	1218	6.15	5.32		116.0	2/12	1896	132	
٠	1228	6.2	5,39	0.396	138.0		19.06	128	
	1238	6,22	5.4	0.394	32.1	1,39	1898		
	1243	6.25	54	121391	17,2	1.12	18.96		
	1248	6.26	5,4	0.390	7	1,09	18.44		
	1010	6,00	J'-1	01,710	40	1101	12111	(1/0)	
	· · · · · · ·								



	AMEC PROJEÇT	NUMBER 6	28-1	2-00	21 N	MONITORIN	NG WELL N	UMBER	MW-193		
	SITE NAME	uke Spar	tanburg.	ATE 10	7 17	ΓIME OF SΑ		1040			
	FIELD PERSON	<u> </u>			v	VEATHER (CONDITION	is Clou	1dy 680		
		•							1		
	TOTAL WELL D	EPTH (TWD))5	FT. (11	neasured) we	ll tag / drille	rs log/ previ	ous report – ci	rcle one)		
	SCREENED INT	ERVAL	5-15		MEASUR	ING POINT	FOR DEPT	н <u> </u>	DC		
	DEPTH TO GRO	UNDWATER (D	•	8.5	3						
	LENGTH OF WA	TER COLUMN	(LWC) = T	WD – DGW	= 6.4	7		_			
	CASING DIAME	73	_IN.								
	ONE STANDING	WELL VOLUM	E= <u> </u>	26 gal.							
	(NOTE ½" = 0.01	02G/FT: ¾" = 0.0)23 G/FT: 1	"= 0.041G/F	T: 2" = 0.163	3 G/FT: 4"=	= 0.653 G/FT	: 6" = 1.46 G	/FT)		
	THREE STANDI	NG WELL VOLU	JMES =s	<u> 3.18 </u>	FIVE STA	ANDING W	ELL VOLUI	MES =	, 3		
	METHOD OF WI				AP)OTHER	: TYP	PE <i>PP</i>	<u>ri </u>			
	TOTAL VOLUM	E OF WATER RI	EMOVED:		<u> </u>	GAL, FLO	W RATE		mL/min		
	WELL TYPE:	FLUSH MOUNT	ABOVE (GRADE			СОММ	ENTS			
	LOCKING CAP	The state of the s	Y	ES	NO		5150	ht Od)/ ⁻		
	PROTECTIVE POST/ABUTMENT YESNO										
	NONPOTABLE I	ABEL	YI	ES	NO						
	ID PLATE		YJ	es	NO						
	WELL INTEGRI	ΓΥ SATISFACTO	ORY YI	ES	NO						
	WELL YIELD	LOW	MODERA	TE	HIGH .		_ 				
	Elapsed	Depth to		Cond.	Turbidity	Dis, O ₂	Temp	ORP			
	Purge Time (in minutes)	Groundwater	Hq	(μS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes		
laac		N (7	1 71	カカンフ)0a	11 03	1200	117			
1005	Initial Reading	2,53	6.26	DAX /	509	1111	20185	77			
	1015	8,92	6.29	0.818	126	1.96	20.87				
	1025	8,98	6.77	0.479	47.7	0.17	20.81	48			
	1030	8,98		0974			20.76				
	1035	8,48	6.24	0.415	9.1		20.79	41			
	:						<u>-</u>				
	-										



A	MEC PROJEÇT	NUMBER 62	28-1	2-00.	21 <u> </u>	ONITORIN	G WELL N	JMBER 🖊	1W-OR33			
		Le-Spartan			-12 T	TME OF SA	MPLE	1305				
	IELD PERSONN		·					s Partl	y Llondy 7			
								•	,			
Т	OTAL WELL DI	EPTH (TWD)						us report – cir				
S	CREENED INTE	ERVAL		24.5	MEASURI	NG POINT	FOR DEPTI	70				
D	DEPTH TO GROUNDWATER (DGW) 9,47											
L	LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 15,03											
C	CASING DIAMETERIN.											
C	ONE STANDING WELL VOLUME = $\frac{2.46}{}$ gal.											
(1	NOTE ½" = 0.010	$02G/FT: \frac{3}{4}$ " = 0.02	23 G/FT: 1	"= 0.041G/F	T: $2" = 0.163$	G/FT: 4"=	0.653 G/FT	6" = 1.46 G	(FT)			
Т	HREE STANDIN	NG WELL VOLU							<i>3</i>			
N	METHOD OF WE	ELL EVACUATIO	N: BA		APY OTHER:		E_ <i>Per</i>					
T	OTAL VOLUMI	E OF WATER RE	MOVED:		<u>.5</u> (AL. FLO	W RATE		mL/min			
ν	VELL TYPE: I	FLUSH MOUNT	ABOVE O	GRADE	••		COMMI	ENTS				
L	OCKING CAP		YE	ES	NO							
P	ROTECTIVE PO	ST/ABUTMENT	YE	ES	NO							
N	IONPOTABLE L	ABEL	YI	ES	NO							
IJ	D PLATE		YE	ES	NO							
		Y SATISFACTO		ES	NO				 			
V	VELL YIELD 1	LOW	MODERA'	ΓE	HIGH				1			
	Elapsed Purge Time	Depth to	рН	Cond.	Turbidity	Dis. O2	Temp	ORP	Notes			
_	(in minutes)	Groundwater		(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)				
1230	Initial Reading	9.47	6.47	0.685	74.8	4.48	22.46	-452				
(BP)	1240	10.2	5.85	0,683	31.9	0.49	21.88	-438				
	1250	9.9		10.688		0.08	21.89					
	1255	9.9	59	0.688		0	21.43					
	1300	9.9	5.93		8,7	0	21.96					



				AM	EC E&I, I	NC.			PWR
		MONITO	RING W	ELL SAN	IPLING F	ELD DA	TA WOR	KSHEET	Dup-2
SI	MEC PROJECT ITE NAME <u>Du</u> IELD PERSONN	ke Sparta.	28-1 Holz	4 4	1-12 T	IME OF SA	G WELL NUMPLE	120	1W-0R3W dy 700
So D L C	ENGTH OF WA'	ERVAL	LWC) = TV IN.	9.56 VD-DGW=		NG POINT	s log/ previo FOR DEPTI	***************************************	rcle one)
T M T	HREE STANDI IETHOD OF WE OTAL VOLUMI	02G/FT: ¾" = 0.02 NG WELL VOLU ELL EVACUATION E OF WATER RE FLUSH MOUNT!	MES = ON: BA MOVED:	ALER/FUN	FIVE STA	NDING WI	ELL VOLUN	nes= <u>l</u> Perí	/FT) mL/min
P: N II	ONPOTABLE L O PLATE	OST/ABUTMENT .ABEL TY SATISFACTO	YI YI	ES ES	NONO NO NO NO				
	VELL YIELD 1		MODERA'		HIGH_				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	plac	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1055	Initial Reading	4.56		0.682	35,4	2.0	21.53	-432	
	1105	11.02	5.97 6.02 6.03	0.670 0.671	27.1 17.6 9.9	0.13	21.09	-451 -451 -453	
				-					
i						-			



AMEC PROJECT NUMBER 6228-12-002 MONITORING WELL NUMBER MW-0R53
SITE NAME DUKE - Spartanbugdate 10-4-12 TIME OF SAMPLE 1445
FIELD PERSONNEL TLH WEATHER CONDITIONS 750 Partly Cloud
TOTAL WELL DEPTH (TWD)FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 20-25 MEASURING POINT FOR DEPTH
DEPTH TO GROUNDWATER (DGW) 16,05
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{14.45}{}$
CASING DIAMETERIN.
ONE STANDING WELL VOLUME = $\frac{2}{\sqrt{5}}$ gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{7.35}{12.2}$ FIVE STANDING WELL VOLUMES = $\frac{12.2}{12.2}$
METHOD OF WELL EVACUATION: BAILER / RUMP/ OTHER: TYPE Peri
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE mL/min
WELL TYPE: FLUSH MOUNT (ABOVE GRADE) COMMENTS
LOCKING CAP YES NO
PROTECTIVE POST/ABUTMENT YESNO
NONPOTABLE LABEL YESNO
ID PLATE YES NO
WELL INTEGRITY SATISFACTORY YESNO
WELL YIELD LOWMODERATEHIGH
Elapsed Depth to Depth to Cond. Turbidity Dis. O2 Temp ORP Notes
Purge Time Groundwater PH (\(\mu S/cm\) (NTU) (mg/L) (°C) (mV) Notes
Initial Reading 10.05 6.46 0.668 72.6 7,32 21.28 161
A-1422 11.55 5.83 0.656 95.7 5.52 21.93 222
1432 11.58 5.89 0.648 31.8 5.42 21.96 229
1437 11.58 6.0 0.645 15.0 5.41 21.92 722
1472 11.64 6.030.640 9.6 5.5 21.92 221



PWR

	AMEC PROJECT	NUMBER 60	22 <u>8-1</u>	2-00:	<u> </u>	IONITORIN	IG WELL N	JMBER	1W-OR5		
	SITE NAME Die	ike Spart	anburg DA	ATE LOS	4-12 1	TIME OF SA	MPLE	93			
	FIELD PERSONN		. 7		WW	EATHER C	CONDITION	s Cloud	Ly 660		
			- • •						·		
	TOTAL WELL D	EPTH (TWD)	24	FT. (m	neasured / we	ll tag / drille	rs log/ previo	ous report – ci	rcle one)		
	SCREENED INTE	ERVAL1	1-24		MEASUR	ING POINT	FOR DEPT	H) <u></u>		
	DEPTH TO GROU	UNDWATER (DO	GW)	9,6							
	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW :	<u> </u>			-			
	CASING DIAME:	TER	IN.								
	ONE STANDING	WELL VOLUMI	E= <u>2.</u>	36 gal.							
	(NOTE $\frac{1}{2}$ " = 0.010	02G/FT: ¾"= 0.0	23 G/FT: 1	"= 0.041G/F	T: 2" = 0.163	G/FT: 4" =	= 0.653 G/FT	: 6" = 1.46 G	F(FT)		
	THREE STANDIN							MES = 1			
	METHOD OF WE	ELL EVACUATIO	ON: BA	AILER PUN	AP) OTHER:	TYP	E	2/1			
	TOTAL VOLUMI	E OF WATER RE		1			W RATE		mL/min		
	WELL TYPE: 1	FLUSH MOUNT	ABOVE (GRADE			COMM	ENTS			
	LOCKING CAP		YI		NO						
	PROTECTIVE POST/ABUTMENT YESNO										
	NONPOTABLE L	LABEL	YI	es	NO						
	ID PLATE		YI	es	NO						
	WELL INTEGRIT	ΓΥ SATISFACTC	RY YI	es /	NO						
	WELL YIELD	LOW	MODERA'	TE	HIGH						
	Elapsed										
	Purge Time	Depth to Groundwater	рН	Cond, (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes		
	(in minutes)				- (110)	_ (Mg/L)					
905		1, 20	6:49	0.695	2	J. 21	20.95	-157			
-	915	11.38	6.45	0.689	15.2	4.85	20.84	-173			
	420	11.38	6.45	0.689	9,4	4.79	20.83	-175			
	925	11.53	6.45	0.689	8.4	4.71	20.84 20.83 20.83	-176			
		_	:			•					
		,									



TIME OF SAMPLE 1530	<u>551</u>
SITE NAME Duke Spartan Jura DATE 10-5-12 TIME OF SAMPLE 1530	
FIELD PERSONNEL TLH WEATHER CONDITIONS SUNNY 850	
TOTAL WELL DEPTH (TWD) SCREENED INTERVAL DEPTH TO GROUNDWATER (DGW) LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4.59 CASING DIAMETER IN. ONE STANDING WELL VOLUME =	
NONPOTABLE LABEL YESNO ID PLATE WELL INTEGRITY SATISFACTORY YESNO NO	
NONPOTABLE LABEL YESNO ID PLATE YESNO WELL INTEGRITY SATISFACTORY YESNO WELL YIELD LOWMODERATEHIGH Elapsed	
NONPOTABLE LABEL YESNO	201 201 201 201 201 201 201 201 201 201
NONPOTABLE LABEL YESNO	23 32 22 23 24 25 24 25 25 25 25 25 25 25 25 25 25 25 25 25
NONPOTABLE LABEL YES NO ID PLATE YES NO WELL INTEGRITY SATISFACTORY WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. 0, Temp ORP Note (in minutes) Furge Time Groundwater (µS/cm) (NTU) (mg/L) (°C) (mV) Initial Reading 8, 41 6,7 0,944 39,1 2,18 2,342 -53	
NONPOTABLE LABEL YES NO ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH (µS/cm) (NTU) (mg/L) (°C') (mV) Note (in minutes) Solution 8, 41 6,7 0,964 39,1 2,18 23,62 -53 1510 8,45 6,19 0,463 19,2 0,16 23,42 -38 1515 8,47 6,21 0,464 11,5 0,04 23,41 - 43	
NONPOTABLE LABEL YES NO ID PLATE YES NO WELL INTEGRITY SATISFACTORY WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. 0, Temp ORP Note (in minutes) Furge Time Groundwater (µS/cm) (NTU) (mg/L) (°C) (mV) Initial Reading 8, 41 6,7 0,944 39,1 2,18 2,342 -53	
NONPOTABLE LABEL YES NO ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH (µS/cm) (NTU) (mg/L) (°C') (mV) Note (in minutes) Solution 8, 41 6,7 0,964 39,1 2,18 23,62 -53 1510 8,45 6,19 0,463 19,2 0,16 23,42 -38 1515 8,47 6,21 0,464 11,5 0,04 23,41 - 43	
NONPOTABLE LABEL YES NO ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH (µS/cm) (NTU) (mg/L) (°C') (mV) Note (in minutes) Solution 8, 41 6,7 0,964 39,1 2,18 23,62 -53 1510 8,45 6,19 0,463 19,2 0,16 23,42 -38 1515 8,47 6,21 0,464 11,5 0,04 23,41 - 43	The second secon
NONPOTABLE LABEL YES NO ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH (µS/cm) (NTU) (mg/L) (°C') (mV) Note (in minutes) Solution 8, 41 6,7 0,964 39,1 2,18 23,62 -53 1510 8,45 6,19 0,463 19,2 0,16 23,42 -38 1515 8,47 6,21 0,464 11,5 0,04 23,41 - 43	
NONPOTABLE LABEL YES NO ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond. Turbidity Dis. 02 Temp ORP Note (in minutes) Foo Initial Reading 8, 41 6, 7 0, 944 39, 1 2, 18 23, 42 - 53 IS 10 8, 45 6, 19 0, 963 19, 2 0, 16 23, 42 - 38 IS 15 8, 47 6, 21 0, 964 11, 5 0, 04 23, 41 - 43	nex quient l'enque à la company de la compan



,	AMEC PROJECT	NUMBER 6	2 <u>28-</u>	12-00	2) M	IONITORIN	G WELL N	JMBER 🦯	1W-0555	
	SITE NAME <i>Di</i>									
	FIELD PERSONN		رد						y 85°	
									/	
,	TOTAL WELL D	EPTH (TWD)	13	FT_(fi	leasured / we	ll tag / driller	s log/ previo	us report – ci	rcle one)	
	SCREENED INTE	ERVAL	2-13		MEASUR	ING POINT	FOR DEPTI	1 78) <u> </u>	
	DEPTH TO GRO	UNDWATER (DO	GW)	8.65						
	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW =	= <u>4-3</u>	5				
	CASING DIAME									
	ONE STANDING	WELL VOLUMI	3= 0 ,	71 gal.						
	(NOTE ½" = 0.01		23 G/FT: 1	"= 0.041G/F						
	THREE STANDII	NG WELL VOLU	MES =	2.13	FIVE STA	ANDING WI	ELL VOLUN	/IES =	<u> </u>	
	METHOD OF WE	ELL EVACUATIO	N: BA	AILER (PUM	OTHER:	TYP	Е <i>Ре</i>	rí		
	TOTAL VOLUMI	E OF WATER RE	MOVED:			GAL. FLO	W RATE		mL/min	
	WELL TYPE:	FLUSH MOUNT	LABOVE	GRADE			COMMI	ENTS		
	LOCKING CAP		YI	S V	_NO					
	PROTECTIVE POST/ABUTMENT YESNO									
	NONPOTABLE I	ABEL	YH	ES	NO					
	ID PLATE		YI	3S	_NO					
	WELL INTEGRIT	TY SATISFACTO	RY YE	es	NO					
	WELL YIELD	LOW	MODERA	ГЕ	HIGH		_			
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Тетр	ORP		
	Purge Time (in minutes)	Groundwater	рН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes	
1244		の 2 以	117	0.804	77.9	3.92	23.61	-10		
1004	1 2 c'll	5.70	6.62		28,2					
	1254		(10	8)(18) 8 7011	111 7	0/37	77 /7	<u> </u>		
	12.59	8.79		0.784	7,7	4 K/	22.63	- 18		
	1304	8,79	bull	0.784	111	0136	22 63			



AMEC PROJECT	NUMBER 622	<u>8-12-1</u>	2021	M(ONITORING	3 WELL NU	MBER	1W-033	
SITE NAME ()u)	Le Spartant	n/j_DA	TE	5-12 TI	ME OF SAM	MPLE	<u>נצ.גו</u>	<u> </u>	
FIELD PERSONN				W	EATHER CO	ONDITIONS	Sunn	y 85	
TOTAL WELL DO SCREENED INTEDEPTH TO GROUD LENGTH OF WAS CASING DIAMETONE STANDING (NOTE ½" = 0.010 THREE STANDING METHOD OF WELL TYPE: LOCKING CAP PROTECTIVE PONONPOTABLE IND PLATE WELL INTEGRIC	EPTH (TWD) ERVAL UNDWATER (DG TER COLUMN (I TER	8-13 (W)(LWC) = TW (IN. 23 G/FT: 1" MES = ON: BA MOVED: YE YE YE RY YE	8-28 VD - DGW = 7 gal. 2-0.041G/F1 2.31 LILER PUM 6RADE 6S 6S 6S 6S	Easured/ well _MEASURID = 4 7 T: 2" = 0.163 _ FIVE STA	G/FT: 4"= NDING WE TYPE AL. FLOY	s log/ previou FOR DEPTH 0.653 G/FT: ELL VOLUM E	us report – cin A = 1.46 G A = 3	rcle one) /FT) **S5mL/min	
Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
Initial Reading	8.28	6.73	0.734	42.3	4.86	24.34	25		
1240	8.30	6.09			1,54				╛
1245	8.31	6.08	0.741		1,52	23.83	69		4
1350	8,30 8,31 8,31	608	0,742	6.2	1.52	23.28	70_		\dashv
									\dashv
									_
									\dashv
		· · · · · · · · · · · · · · · · · · ·							
	<u> </u>								\neg



									1W-OR1
	ITE NAME <u>(</u>	nke-Spac NEL TZ H	Tanbag DA	ATE 10-	-4-/2_7 	TIME OF SA VEATHER O	MPLECONDITION	<u>163</u> s <u>Sun</u> n	y 83°
S D D D D D D D D D D D D D D D D D D D	CREENED INTO EPTH TO GRO ENGTH OF WA ASING DIAME THE STANDING NOTE ½" = 0.01 HREE STANDING THE S	EPTH (TWD) ERVAL UNDWATER (DO TER COLUMN (TER WELL VOLUM 02G/FT: ¾" = 0.0 NG WELL VOLU ELL EVACUATION E OF WATER RI FLUSH MOUNT DST/ABUTMENT ABEL TY SATISFACTO LOW	GW)	MD - DGW HS gal. "= 0.041G/F 7.35 AILER/PUN GRADE ES ES ES ES	MEASUR	G/FT: 4"= ANDING W. TYP GAL. FLO	FOR DEPTI • 0.653 G/FT ELL VOLUM E PEC W RATE	H $\frac{TO}{O}$: 6" = 1.460 MES = $\frac{1}{2}$	G/FT) , 25
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
600	Initial Reading	10.05	6.41	0.781	356	11.07	22.23	5	a liituunus prisesterikus teen jokkis lataalaa <u>alaa</u>
1610		10.05		0,761	44	9.12	21.43	6	
1615		10.16	6.11	0.760	13.8				
620		10.16	6.09	0.758	2,7	8.98	21,37	7	
					_				
İ									



PWR

A	MEC PROJECT	NUMBER 62	28-12	-002	ии	MONITORIN	IG WELL N	umber <u>(</u>	MW-ORIO
S	ITE NAME <u>() u</u>	ke Spartan	buco DA	ATE 10-	4-12	ΓIME OF SA	MPLE	<u> </u>	
	TELD PERSONN	٠ ٠	 					15 Clou	dy 66°
				_					/
Т	OTAL WELL D	EPTH (TWD)	<u> </u>	, FT. (r	neasured / we	ell tag / drille	rs log/ previ	ous report – c	ircle one)
S	CREENED INTE	ERVAL	18,5-3	72.5	MEASUR	ING POINT	FOR DEPT	нТС	
r	EPTH TO GRO	UNDWATER (DO		9,15					
I	ENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	=	7,35			
C	CASING DIAME	гек <u>2</u>	_IN.	des	, -	_			
C	NE STANDING	WELL VOLUM	E=	J Z gal.					
(1	NOTE ½" = 0.010	02G/FT: ¾" = 0.0							
Т	HREE STANDII	NG WELL VOLU	MES =	6.54	FIVE ST.	ANDING W	ELL VOLU	MES =/	2.9
N	ÆTHOD OF WE	ELL EVACUATION		-	了 如 / OTHER	: TYP	е_ <u>в</u>	1	
Т	OTAL VOLUMI	E OF WATER RE	MOVED:			GAL. FLO	W RATE		mL/min
v	VELL TYPE: 1	FLUSH MOUNT	ABOVE O	GRADE			COMM	ENTS	
L	OCKING CAP		YI	<u>s</u>	NO				
P	ROTECTIVE PO	ST/ABUTMENT	YI	ES	NO				
N	ONPOTABLE L	ABEL	YH	es <u> </u>	NO				
I	D PLATE		YE	es	NO				
V	VELL INTEGRIT	Y SATISFACTO	RY YE	3S	NO				
ν	VELL YIELD 1	Low	MODERA'	TE	HIGH				•
	Elapsed	Depth to		Cond,	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	На	(μS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes
300	Initial Reading	410	6.46	0.625	9.3	2.78	19.15	~ 7u	1979 - 1970 - 19
810		4.35			· · · · · · · · · · · · · · · · · · ·	0.02	19.90	-14%	
010	815	9,37			10.4		18.93		
	820	9,40		0:603		0.03	_		
	200	7/10	((' (2)	() :60	0.7	<u> </u>	19701	-105	



		NUMBER_6				MONITORIN	IG WELL N	UMBER 🥂	1W-05 10.
S	ITE NAME <u>V</u> u	Ke-Spartan	burg_D	ate <u> 10-</u>	•	TIME OF SA		1215	
F	TELD PERSON	NEL TLH			V	VEATHER (CONDITION	18 <u>5unn</u>	y 83°
T () () () () () () () () () (COTAL WELL DECREENED INTO CREENED INTO CREEN	DEPTH (TWD) ERVAL UNDWATER (D ATER COLUMN TER WELL VOLUM 02G/FT: ¾" = 0.0 NG WELL VOLU ELL EVACUATI E OF WATER RI FLUSH MOUNT	(LWC) = T _IN. E = D23 G/FT: 1 JMES = ON: B EMOVED: / ABOVE YI YI YI YI YI YI	2 gal. "= 0.041G/F 3 r 6	measured) weMEASUR T: 2" = 0.163 FIVE STA	ell tag / drille ING POINT 32 3 G/FT: 4" =	rs log/ previo	cous report – c TH	ircle one)
		LOW			HIGH				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1155	Initial Reading	2.62	6.35	0.594	49.8	237	23,60	73	
1100	1200		5.80	0.590	23.9	0.40	22.46	-46	
	1205	8.82	5.80	0,591	11.8	0.36	22.43	-52	
	1210	84	5.81	0,543	8.4	0,35	22,46	-56	
					,				
	<u>,,, , , , , , , , , , , , , , , , , , </u>								
:									
			1						



	AMEC PROJECT								1W-0510
	SITE NAME 🕖	ke Spartante	rg_D	ATE 10-	<u>5-12</u> 1	TIME OF SA	MPLE	1440	<u> </u>
	FIELD PERSONN	TEL 12H			v	VEATHER (CONDITION	s Sunn	y 856
	TOTAL WELL D	EPTH (TWD)	13	FT	neasured / we	ll tag / drille	rs log/ previo	ous report – ci	
	SCREENED INTI	ERVAL	8-7)3	MEASUR	ING POINT	FOR DEPT	H	<u></u>
	DEPTH TO GRO			7.8					
	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= <u>5</u> .	18		-	
	CASING DIAME	TER	IN.	_					
	ONE STANDING	WELL VOLUM	E=_ <i>,8</i>	gal.					
	(NOTE ½" = 0.01	$02G/FT: \frac{3}{4}$ " = 0.0	23 G/FT: 1	"= 0.041G/F					
	THREE STANDI	NG WELL VOLU	MES =	2.55	FIVE STA			,	(25
	METHOD OF WE	ELL EVACUATIO	ON: BA	AILER / KUN	J) OTHER	: TYP	E Pel	<u>^</u>	
	TOTAL VOLUM	E OF WATER RE	EMOVED:		(GAL. FLO	W RATE		mL/min
	WELL TYPE:	FLUSH MOUNT	/ ABOVE (GRADE	-		COMM	ENTS	
	LOCKING CAP		YI	ES	NO				
	PROTECTIVE PO	OST/ABUTMENT	YI	ES	NO				
	NONPOTABLE I	ABEL	YI	ES	NO				
	ID PLATE		YI	ES	NO				
	WELL INTEGRIT	ΓΥ SATISFACTC	RY YI	ES	NO				
	WELL YIELD	LOW	MODERA'	TE	HIGH		_		
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	pН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes
1111/		7.82	1.78	1.560	50.1	311	23,94	3	2 State Commission of the state
1416							 	-20	
ě	1426	7,85 7,85	1 70	0.569	16,1	017	23,53	_JO	
	1431	7,85			9.8				
	1436	7,83	600	0,277	J . C	8110	2300	7-1	
							<u> </u>		
						<u> </u>			



AMEC PROJECT			**				JMBER 🖊	1W-05155
SITE NAME Out	ke Sparto	inburg D.	АТЕ <u>[[]</u> -	4-12	TIME OF SA	AMPLE		540
FIELD PERSONNI							s Bartly	· Cloudy 800
TOTAL WELL DE SCREENED INTERDEPTH TO GROU LENGTH OF WAT CASING DIAMET ONE STANDING WITH TOTAL VOLUME WELL TYPE: FLOCKING CAP PROTECTIVE POSSION ON POTABLE LA	EPTH (TWD) RVAL INDWATER (DO TER COLUMN (TER	GW)	y 7 WD – DGW 7 gal. "= 0.041G/F 2 () AILER (PUN GRADE) ES	measured we measured with the measured we measured we measured with the measured we measured with the measured we measured with the measured we h the measured we measured with the measured we measured with the measured we measured with the	Il tag / drille ING POINT G G/FT: 4" = ANDING W TYP	rs log/ previo	ous report – ci H $$	ircle one)
ID PLATE	ADEL	YI		NO				
WELL INTEGRITY	Y SATISFACTO		ES	NO				· · · · · · · · · · · · · · · · · · ·
WELL YIELD LA				HIGH				
Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity:	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
Initial Reading	8,7	6,5	0.630	635	4.09	23,74	73	
1528	9.09		0.569		0.31	22.98	87	
1533	9.15		8.565		0.11	22.96		
1538	9.16		0.565		0.21	24.91	93	
				· · · · · · · · · · · · · · · · · · ·				

1518



		NUMBER 6							MW-0520
S	SITE NAME <u>[]</u>	ike-Sparta	nburaD.	ATE <u>/O^</u> S	1-12	TIME OF SA	AMPLE	<i>035</i>	
	TELD PERSON			<u> </u>		VEATHER (CONDITION	15 Sunny	y 83°
S I I I C C C C I I I I I I I I I I I I	CREENED INTO DEPTH TO GRO LENGTH OF WA CASING DIAME ONE STANDING NOTE ½" = 0.01 CHREE STANDING METHOD OF WI COTAL VOLUME WELL TYPE: LOCKING CAP PROTECTIVE PO NONPOTABLE I D PLATE	EPTH (TWD) ERVAL ERVAL UNDWATER (DO TER COLUMN (TER	GW)	8,78 WD – DGW 169 gal. "= 0.041G/F 2,07	T: 2" = 0.163 FIVE ST. FIVE ST.	ING POINT 2 2 3 G/FT: 4"= ANDING W TYF	FOR DEPT	C: 6" = 1.46 (MES =	G/FT)
		LOW				 			
	Elapsed Purge Time (in minutes)	Depth to Groundwater	pH =	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
MA	Initial Reading	9.78	645	0:622	178	1.7	20.16	-24	Giller new min normal to state and the state of the state
1003	1015	8.83	6,24	0.599	,	0,73	20/62	 	
	1020	8,83		0.596	26.1	0.00	20.69	-68	
	1025	8,83	6.30	D 591	16.8	0.01	20.66	- 7)	
	1030	8.83	630		4.7		20.66		
	1000	0.00	0.50	0) [0.00	ac op	<i>*</i> .	
		<u>- </u>							
	· · · · · · · · · · · · · · · · · · ·						-		



А	MEC PROJECT	NUMBER_	728-1	2-00	21_N	IONITORIN	IG WELL N	UMBER <u>/</u>	1W-05253	
S	SITE NAME Duke-Spartanburg DATE 10-5-17 TIME OF SAMPLE 1130									
	TELD PERSONNEL JLH WEATHER CONDITIONS SUNNY 800									
										
Т	TOTAL WELL DEPTH (TWD)									
S	SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH 700									
Б	DEPTH TO GROUNDWATER (DGW) 8.82									
L	LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{4.18}{}$									
	CASING DIAMETERIN.									
C	ONE STANDING WELL VOLUME = Och Bal.									
(1	(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)									
Т	THREE STANDING WELL VOLUMES = $\frac{2.04}{}$ FIVE STANDING WELL VOLUMES = $\frac{3.4}{}$									
N	METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE PC									
Т	TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATEmL/min									
V	WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS									
L	LOCKING CAP YES NO									
P	PROTECTIVE POST/ABUTMENT YES NO NO NO NO NO NO NO NO NO NO NO NO NO									
N	NONPOTABLE LABEL YES NO NO NO NO NO NO NO NO NO NO NO NO NO									
IJ	ID PLATE YES NO									
WELL INTEGRITY SATISFACTORY YESNO										
WELL YIELD LOWMODERATEHIGH										
	Elapsed	Name (b. fo			71	n: O				
	Purge Time (in minutes)	Depth to Groundwater	Н	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
1105	Initial Reading	V 77	1 21	2,999	21/	9.95	21.23	~3<		
HOJ		000 <u>0</u>	6.56		21.4	7.13		فسدفها		
	1110	2.85	6147	0.511	16.8	2 22	20.59	~44	-	
	1120	8,84	6.43	0.509	12.6	2.22	20.54	~48		
	114.00	009	6.97	0.508	7.7	2.18	20.57	/		
									•	



AMEC PROJECT					UNG WELL			
SITE NAME <u>Duk</u>	e Energy-Spartanb	urg DA	te <u>2/7</u>	2 7/13 T	IME OF SAI	MPLE	1219	1000
FIELD PERSONN	EL <u>TLH & RC</u>		· · · · · · · · · · · · · · · · · · ·	w	EATHER C	ONDITIONS	SUMMI	4.60°F
							d	y
TOTAL WELL DI	EPTH (TWD) <u>2</u>	0.39	FT. (m	easured / wel	l tag / driller	s log/ previo	us report – ci	rcle one)
SCREENED INTE	RVAL 1	0.39-20.39		MEASURI	NG POINT	FOR DEPTI	TOC	2
DEPTH TO GROU	JNDWATER (DO	W)	1101	8				
LENGTH OF WA	TER COLUMN (I	LWC) = TV	/D DGW =	= 9,2	2 (
CASING DIAME			,					
ONE STANDING	WELL VOLUME		gal.					
(NOTE ½" = 0.010							-41	ALEXANT.
THREE STANDI								
METHOD OF WE								<u></u>
TOTAL VOLUMI	E OF WATER RE	MOVED: _		60 C	GAL. FLO		200	mL/min
WELL TYPE:	FLUSH MOUNT						ENTS	1/
LOCKING CAP				NO			ing to	,
PROTECTIVE PO	ST/ABUTMENT			NOX		pros	to Sam	John the
NONPOTABLE L	ABEL			NO		and	ise ne	as opera loom
ID PLATE				NO				
WELL INTEGRIT			S = X	ن		<u> </u>		
WELL YIELD	LOW	MODERAT	LE	HIGH _				
Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
Initial Reading	11.05	5.12	0.160	6.9	5.55	17.97	243	1145
5	11.33	5.080	0.160	6.7	3.25	18.19	255	1150
10	1/073	4.89	0.160	6.2	2.71	18:3s	327	1155
65	17.02	4.78	0.160	5.9	1.83	18.40	3S8	1200
20 25	12.18	4.76	0.160	\leq 3	1.79	18.50	373	1205
25	12.39	4.80	0.156	52	1.83	F8.53	381	1216
30	12.29	4,79	0,154	5.4	1077	18.53	391	1215
	#							
		· · · · · · · · · · · · · · · · · · ·						



		NUMBER					NUMBER		
S	ITE NAME <u>Duk</u>	e Energy-Spartanl	ourgDA	лте <u>2-</u> ,	25-13 ₁	IME OF SA	MPLE	115	
F	IELD PERSONN	EL TLH & RC			W	EATHER (CONDITION	s Cloud	v 450
								,	/
		EPTH (TWD) <u>(</u>							
S	CREENED INTE	ERVAL	57-62		MEASUR	ING POINT	FOR DEPTI	TOT	<u>C</u>
D	EPTH TO GROU	JNDWATER (DO	GW)	6.8					
L	ENGTH OF WA	TER COLUMN (I	LWC) = TV	WD – DGW	= <u>550</u>	·			
		ΓER <u>2</u>							
O	NE STANDING	WELL VOLUMI	3= <u>9</u> ,	<u>05</u> gal.					
		$02G/FT: \frac{3}{4}$ " = 0.02							
Т	HREE STANDII	NG WELL VOLU	MES =	27.15	FIVE STA	ANDING W	ELL VOLUN	IES = L	5,25
M	ETHOD OF WE	ELL EVACUATIO	ON: BA	AILER (PUM	AP) OTHER:	TYP	E <u>Peri-Pu</u>	mp	
T	OTAL VOLUMI	E OF WATER RE	MOVED:		<u>'5 </u>	GAL. FLO	W RATE	150	mL/min
V	/ELL TYPE: 🔿	LUSH MOUNT	ABOVE (GRADE			COMMI	ENTS	
L	OCKING CAP		YI	ESX	NO				
P	ROTECTIVE PO	ST/ABUTMENT	YI.	ES	NOX				
N	ONPOTABLE L	ABEL	YI	ESX	NO				
II	O PLATE		YI	ESX	NO				
W	VELL INTEGRIT	Y SATISFACTO	RY YI	ES X	NO				
V	ELL YIELD	LOW	MODERA'	TE	HIGH		.		
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	рН	West Control of the C	(NTU)	(mg/L)		(mV)	Notes
1054	Initial Reading	7.6	7.0	0.158	42.1	4,44	12,72	80	18 19-19-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1
100 1	1059	8.2		0.160		3,28	12.86	39	
	1104	8.22	7.77	0.11.0	3.53	3 74	13,00	41	Lower Flow
	1109	8.22	7,74	0.1/0		3.28	13.06	42	FOIRT TION
	1114	8,22			3,35	3,27	13.06	43	
		0125	1:00	CILIDO	ررار	0,87	10100	1.)	



	MONITORING WELL NUMBER MW-3SS
SITE NAME <u>Duke Energy-Spartanburg</u> DATE <u>115</u>	TIME OF SAMPLE 1540
FIELD PERSONNEL TLH & RC	WEATHER CONDITIONS Cloudy 40%
TOTAL WELL DEPTH (TWD) 13.25 FT. (mean	
SCREENED INTERVAL 8.25-13.25	MEASURING POINT FOR DEPTHTOC
	3
DEPTH TO GROUNDWATER (DGW) 8.40 LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $_{-}$	4.85
CASING DIAMETER IN.	
ONE STANDING WELL VOLUME = $\bigcirc \cdot \bigcirc $ gal.	
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1"= 0.041G/FT:	2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = 2, 4	
METHOD OF WELL EVACUATION: BAILER PUMP	OTHER: TYPE <u>Peri-Pump</u>
TOTAL VOLUME OF WATER REMOVED:	
WELL TYPE FLUSH MOUNT / ABOVE GRADE	COMMENTS
LOCKING CAP YES X	
PROTECTIVE POST/ABUTMENT YES	
NONPOTABLE LABEL YES X	
•	NO
WELL INTEGRITY SATISFACTORY YES X	
WELL YIELD LOWMODERATE	HIGH
Purge Time Groundwater PH (µS/cm)	
Initial Reading 8.55 6.69 0.365 C	78.5 4.61 11.75 135 1514
	37.9 211 11.65 135 1519
114 8.62 6.69 0.378 2	22.5 1.09 11.88 110 1525
18 mg 8.60 6.73 0.378	
72.m. 8.60 669 0.3751	2.5 0.36 12.05 103 1536



AMEC PROJECT NUMBER 62	228-12-0021	MONITO	RING WELL	NUMBER	MW-10S	
SITE NAME Duke Energy-Spartanbu	urg DATE 2/2	25/13	ΓIME OF SA	MPLE	120	0
FIELD PERSONNEL TLH & RC		v	VEATHER C	ONDITION	s Gouds	40°6
					i	<i>f</i> `
TOTAL WELL DEPTH (TWD) 18	8.54 FT. (measured / we	ll tag / drille	rs log/ previo	us report – c	ircle one)
SCREENED INTERVAL 8.		,	ING POINT	FOR DEPT	<u>TO</u>	C
DEPTH TO GROUNDWATER (DG	w)	16				
LENGTH OF WATER COLUMN (L	WC) = TWD - DGW	<i>'</i> =	<u> </u>		•	
CASING DIAMETER 2 I	N.					
ONE STANDING WELL VOLUME	= <u> </u>					
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023						
THREE STANDING WELL VOLUM	$MES = \underbrace{0.6}_{}$	FIVE ST.	ANDING W	ELL VOLUN	⁄IES = <u></u> €	<u> </u>
METHOD OF WELL EVACUATION	-					
TOTAL VOLUME OF WATER REM	MOVED:	<u>'S</u>	GAL. FLO			
WELL TYPE: FLUSH MOUNT	ABOVE GRADE			COMMI	ENTS LOM	Mete samplin
LOCKING CAP	YES X	NO		$\underline{\mathcal{C}}$) 123	
PROTECTIVE POST/ABUTMENT	YES	NO	<u> </u>			
NONPOTABLE LABEL	YES X	NO				
ID PLATE	YES X	NO				
WELL INTEGRITY SATISFACTOR	RY YES X	NO				
WELL YIELD LOWN	MODERATE	HIGH		_		
Elapsed Depth to Purge Time (in minutes) Groundwater	pH Cond. (μS/cm)		* I shudan, minute many many many many many many	Temp (°C)	ORP (mV)	Notes
Initial Reading 11,41	5.54 0.110	23,5	6.81	11,43	281	11.43
114/3. 11.54	5 58 0190	184	378	11.54	245	11.46
8 min 11.69 E	5.29 0.205	17.6	3.19	11.67	255	11:61
13mn 11.78	5.27 0,217	15.5	2.09	11.73	261	11:56
25 mm 15008 3	5.28 0.238	12.0	1.43	11.82	263	12:07
		+	†			1



AMEC PROJECT NUMBER 6228-12-0	021MONITOR	ING WELL NUMBER _	MW-10D	
	17/2 1 m	NATE OF CLANIDITE	///	SIRCO
SITE NAME <u>Duke Energy-Spartanburg</u> I FIELD PERSONNEL <u>TLH & RC</u>		EATHER CONDITIONS	Cloudy	<u> 40 r</u>
TOTAL WELL DEPTH (TWD) 39	FT. (measured / well	tag / drillers log/ previou	s report – circ	le one)
SCREENED INTERVAL 34-39	MEASURI	NG POINT FOR DEPTH	TOC	
DEPTH TO GROUNDWATER (DGW)	10.62			
LENGTH OF WATER COLUMN (LWC) = '	ГWD – DGW =	(· J B		
CASING DIAMETER 2 IN.				
ONE STANDING WELL VOLUME =	<u>1 (6)</u> gal.			ares)
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT:	1"=0.041G/FT: $2"=0.163$	G/FT: $4" = 0.653$ G/FT:	6" = 1.46 G/F	(I) 7 6
THREE STANDING WELL VOLUMES = _	13,95 FIVE STA	NDING WELL VOLUM	ES = <u>& .).</u>	
METHOD OF WELL EVACUATION:	BAILER FRUMP / OTHER:	TYPE <u>Peri-Pur</u>	np	
TOTAL VOLUME OF WATER REMOVED	0: <u>0. 25</u> 0	AL. FLOW RATE	150	mL/miii
WELL TYPE: AUXI MOUNT ABOV			NTS	
LOCKING OF D	YES X NO			
PROTECTIVE POST/ABUTMENT				
MOIN ON IDEA DE DES	YES X NO			
ID I IZ II E	YES X NO			
WELL INTEGRITY SATISFACTORY	YES X NO			
WELL YIELD LOWMODE	RATEHIGH		and the sales were the large	al a constitue a distanta la lagar
Elapsed Depth to	Cond. Turbidity	Dis. O ₂ Temp	ORP	Notes
Purge Time Groundwater pH (in minutes)	(μS/cm) (NTU)	(mg/L) (°C)	(mV)	
Initial Reading 10.62 56	10,146 5.1	4.42 10.35	171	1050
7 mm 10.70 6.5	50,167 7.7	1.97 10.74	192	1057
12 4.00 G.3	90.163 29	1.87 1107	I I	1102
16 min 11.23 6.3	s 0.16Z 2.Z	16-7 11.29	202	1106
20mn 11.44 6.3	20161 25	1.61 11.45	20<	1110
	1			

1



AMEC PROJECT NUMBER 6228-12-0021 MONIT	ORING WELL NUMBER <u>MW-11S</u>
SITE NAME Duke Energy-Spartanburg DATE 2/25/13	TIME OF SAMPLE 1430
FIELD PERSONNEL TLH & RC	WEATHER CONDITIONS Cloudy, 40 F
TIDID TERROTANE	
TOTAL WELL DEPTH (TWD) 14.6 FT. (measured / v	well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 4.6-14.6 MEASU	JRING POINT FOR DEPTHTOC
DEPTH TO GROUNDWATER (DGW) 11.05	_
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =	<u>,55</u>
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = Or.58 gal.	
ONOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.1	163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{1.74}{1.74}$ FIVE S	STANDING WELL VOLUMES = < 1
METHOD OF WELL EVACUATION: BAILER PUMP OTHER	ER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED:	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE	COMMENTS
LOCKING CAP YES X NO	
PROTECTIVE POST/ABUTMENT YESNO	
NONPOTABLE LABEL YES X NONO	
ID PLATE YES X NONO	
WELL INTEGRITY SATISFACTORY YES X NO	
WELL YIELD LOW	H
Elapsed Depth to Purge Time Groundwater PH Cond. (NTU)	
11000 0 27 100	4.38 880 233 1334
4 12 65 372 0370 85.	5 390 957 442 1338
Initial Reading 12.13 4.99 0.370 129 4 m. 12.65 372 0.370 85.9 8 m. 14.05 3.68 0.366 42.9 Dry CD 10 nin 1+cs	5 3,48 10.50461 1342
Dr. (1) 10 min tes	
0.9	



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-11D
SITE NAME Duke Energy-Spartanburg DATE 22513 TIME OF SAMPLE 140
FIELD PERSONNEL TLH & RC WEATHER CONDITIONS GOLD OF
θ
TOTAL WELL DEPTH (TWD) 31.2 FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 26.2-31.2 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 11.13
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{20.07}{}$
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME = 3.24 gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = 987 Five STANDING WELL VOLUMES = 16.45
METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED: O.Z. GAL. FLOW RATE 100 mL/min
WELL TYPE: FLUSH MOUNTY ABOVE GRADE COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YESNOX
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOWMODERATEHIGH
Elapsed Purge Time (in minutes) Depth to Groundwater PH (μS/cm) (NTU) Dis. O ₂ Temp (mg/L) (°C) Notes
Initial Reading RMC - 4.99 0.376 129 4.38 8.80 233 1334
6410 1 11.45 6.07 0.212 10.0 195 12.90 326 1349
TZ-14 12.14 7.11 0.217 4.0 1.37 12.03 267 1354
10 mg 12.43 7.29 0,219 22 1.30 11.97 247 1359
Kan 17.58 7.35 0.218 /09 /0/8 12.01 223 /3404
20 min 12.55 7.49 0.217 1.6 1.10 12.04 212 1409



AMEC PROJECT I	NUMBER 62	228-12-002	1	_MONITOR	ING WELL	NUMBER_	MW-12S	
	TO 0	1347	rc 2/2	7/13 T	ME OF SAI	MPLE	1020	3
SITE NAME <u>Duke</u> FIELD PERSONN	EL TLH & RC			W	EATHER C	ONDITIONS	Sunn	2 60°E
1 1220 1 2110 0 1 111		<u> </u>					•	
TOTAL WELL DE	PTH (TWD)1	5,27	FT. (m	easured / well	tag / driller	s log/ previou	ıs report – ci	rcle one)
SCREENED INTE	RVAL5	.27-15.27	MEAS	URING POIN	NT FOR DE	PTH	TOC	
DEDTH TO GROU	NDWATER (DG	W)	3.45	>				
LENGTH OF WAT	ΓER COLUMN (I	WC) = TW	D – DGW =	<u> </u>	72			
CASING DIAMET	ER2]	N.	~ -					
ONE STANDING		, ,	gal.					
(NOTE ½" = 0.010	2G/FT: ¾" = 0.02	23 G/FT: 1"	= 0.041G/F	$\Gamma: 2" = 0.163$	G/FT: 4"=	0.653 G/FT:	6" = 1.46 C	G/FT)
` THREE STANDIN	IG WELL VOLU	MES =		FIVE STA	NDING WE	ELL VOLUM	IES =	
METHOD OF WE	LL EVACUATIO	N: BA	ILER / PUM	IP / OTHER:	TYPI	E <u>Peri-Pu</u>	mp	
TOTAL VOLUME	OF WATER RE	MOVED: _	0.25		AL. FLO	W RATE	100	mL/min
WELL TYPE:	LUSH MOUNT /	ABOVE G	RADE			COMME	ENTS	
LOCKING CAP		YE	SX	NO		 -		
PROTECTIVE PO	ST/ABUTMENT	YE	S	NOX	·	 .		
NONPOTABLE L	ABEL	YE	SX	NO				
ID PLATE		YE	S X	NO				
WELL INTEGRIT	Y SATISFACTO	RY YE	SX	NO				
WELL YIELD I	LOW	MODERAT	TE	HIGH				
Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dls. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
Initial Reading	3.SS	5.76	0.070	809	D. 23:	12.19	184	ORG
5min	3.65						236	1000
10 nm			0.108	12.4	7.66			1005
15 min	3.89			4.1	7.08	12.77	252	1010
20 MG	3.93			3.1	663	13.00	248	1015
25 min			0.133	2.9	6.59	13.03		1018
	_							



	1/102/112							
AMEC PROJECT N	UMBER62	28-12-0021		_MONITORI	NG WELL I	NUMBER	MW-12D	
AMEC PROJECT N SITE NAME <u>Duke</u>	Energy-Spartanbi		~ 1 - ~	7/13_TI	ME OF SAM	IPLE	2919	6000
FIELD PERSONNE	L TLH & RC			WI	EATHER CO	NDITIONS_	SUANA	1,60°F
TOTAL WELL DE	PTH (TWD) 3:	5.42	_FT, (me	asured / well	tag / drillers	log/ previous	s report – circ	ele one)
SCREENED INTER	2VAI 3	1 42-35 42		MEASURI	NG POINT F	OR DEPTH	TOC	
DEPTH TO GROU	NDWATER (DG	W)	3,64	- /				
LENGTH OF WAT	NDWATER (DG	WC) = TW	D – DGW =	31	. 78			
			<i>р</i> ван					
CASING DIAMET	ERJ	_ 5	l mal	•				
ONE STANDING Y $(NOTE \frac{1}{2}" = 0.010)$	WELL VOLUME	= <u> </u>	gar. - 0.041 <i>G/</i> ET	"· 2" = 0 163	G/FT· 4"= (0.653 G/FT:	6" = 1.46 G/J	FT)
(NOTE $\frac{1}{2}$ " = 0.010. THREE STANDIN	2G/FT: %'' = 0.02	3 G/F1: 1°=	41.0.140.0 = AlA	. ETME CTA	MOING WE	II VOLUM	ES = NA	· ·
THREE STANDIN	G WELL VOLU	MES =	7V [7]	- Live siv	TVDI	Peri-Pun	nn	
METHOD OF WE	LL EVACUATIC	N; BAJ	LER/PUM	P/OTHER:				mL/min
TOTAL VOLUME				<u>// </u>	AL. FLUV	COMME	NTS	
WELL TYPE: F	LUSH MOUNT					_		Samolne
LOCKING CAP				NO		<u> </u>	hilm	alled tubile
PROTECTIVE PO	ST/ABUTMENT			NOX		<u> </u>	- v - * - / -	Hin screene
NONPOTABLE L.	ABEL			NO		100ing	100 00	mala Witter
ID PLATE				NO		MITERUC	2000	to al least
WELL INTEGRIT			_	NO			time as	otorof /cal
WELL YIELD I	Low	MODERAT	`E	HIGH _		SOUPE	more as	0410
Elapsed Purge Time	Depth to Groundwater	рĦ	Cond. (µ\$/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
(in minutes)		Hemp	0 764	14.0	10.52	1159	100	TIME 0849
Initial Reading	4.35	448	0.294	· · · · · · · · · · · · · · · · · · ·			14/3	:0863
4min	4.49	 	0.285	12.3	11.95	, , , , , , , , , , , , , , , , , , ,	156	0900
11 min	4.66	6.85	0.25	6.4		7.50	161	0905
16 min	4.66	6.84	0.273		11.56	8.29	4 -0	0910
Plan	465	6.50	0.267		IQ.GU	9.32	166	
Insteal	4.91	15,14	0.256	2.2	1.ZS	15.41	158	1031
5MINO	5.48	6.32	0.252	I .	0.00	15.38	129	1036
9'mn_	5.73	5.39	0.248	0.8	0.00	15 S3	120	
17 min	5.81	6.36	0.246	04	0.00	15.76	104	1048
23 NI	5,79	6.34	0246	0.2	0.00	17.79	74	1054
	 - 		- 1		0551	Veave	Sample	timo as a



AMEC PROJECT NUMBER 6228-12-0021	MONITORING WELL NUMBERMW-13S
SITE NAME <u>Duke Energy-Spartanburg</u> DATE <u>2</u>	27-13 TIME OF SAMPLE 1400
FIELD PERSONNEL TLH & RC	WEATHER CONDITIONS 60° Partly Cloudy
·	(measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 5.02-15.02	MEASURING POINT FOR DEPTHTOC
DEPTH TO GROUNDWATER (DGW) 6.4	8
LENGTH OF WATER COLUMN (LWC) = TWD – DGW	$V = X \cdot 3 \cdot 1$
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME =gal.	
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/I	
	FIVE STANDING WELL VOLUMES =
	JMP OTHER: TYPE <u>Peri-Pump</u>
	GAL. FLOW RATEmL/min
WELL TYPE: (FLUSH MOUNT) ABOVE GRADE	COMMENTS
	NO
	NOX
	NO
	NO
	NO
WELL YIELD LOWMODERATE	HIGH
Elapsed Purge Time (in minutes) Depth to Groundwater pH (μS/cm)	to be an interesting the process of the Total Control of the Contr
3 Initial Reading 6,61 5,31 53,6	835 0.83 16.93 194
1348 6,62 5,23 25,4	
1353 6.62 5.26 15.3	
1358 6.62 5.26 14.4	103 0 15,82 179 Sensors wested
	n/oil, substance



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-13D
SITE NAME <u>Duke Energy-Spartanburg</u> DATE <u>2-27-13</u> TIME OF SAMPLE <u>1255</u>
FIELD PERSONNEL TLH & RC WEATHER CONDITIONS FACTLY Cloudy 55
TOTAL WELL DEPTH (TWD) 35.4 FT. (measured / well tag / drillers log/ previous report - circle one)
SCREENED INTERVAL 30.4-35.4 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 7:10
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{28}{3}$
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME = $\frac{4.64}{9}$ gal.
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{13.92}{13.92}$ FIVE STANDING WELL VOLUMES = $\frac{2.3.1}{12.92}$
METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE 1.5 ()mL/min
WELL TYPE: (FLUSH MOUNT) / ABOVE GRADE COMMENTS
LOCKING CAP YES X NO Well down not preduce enough
PROTECTIVE POST/ABUTMENT YES NO X Water for low Flow sample
NONPOTABLE LABEL YES X NO Dewater well, let recharge
ID PLATE YES X NO Then Sample
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOW MODERATE HIGH
Elapsed Depth to Purge Time Conductor PH (US/cm) (NTU) (mg/L) (°C) (mV)
Purge Time Groundwater PH (µS/cm) (NTU) (mg/L) (°C) (mV)
Initial Reading 8.0 7.20 0.492 3.5 10.41 17.17 115
1232 13.48 7.25 0.326 1.5 5.1 16.66 117
12.37 18.63 7.25 0.251 2.3 5.62 16.72 112
1242 23,35 7,25 0,246 2.4 3.4 16.76 111
1247 28,29 7,25 0,237 2,14 4,32 18,79 110
1251 Dry 7.25



200 C 200 C
AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-13 ISOC
SITE NAME <u>Duke Energy-Spartanburg</u> DATE <u>7-27-13</u> TIME OF SAMPLE <u>1140</u>
FIELD PERSONNEL TLH & RC WEATHER CONDITIONS SUNNY 52
TOTAL WELL DEPTH (TWD) 21.5 FT. (measured / well tag / drillers log/ previous report - circle one)
SCREENED INTERVAL 6.5-21.5 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW)
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =
CASING DIAMETER 4 IN.
ONE STANDING WELL VOLUME =gal.
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1" = 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = FIVE STANDING WELL VOLUMES =
METHOD OF WELL EVACUATION: BAILER PUMP/OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED:
WELL TYPE: (FLUSH MOUNT) ABOVE GRADE COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YES NO X
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOWMODERATEHIGH
Elapsed Depth to Cond. Turbidity Dis. O2 Temp ORP Notes
Purge Time Groundwater pH (µS/cm) (NTU) (mg/L) (°C) (mV) Notes
2000
Service Administrative of Marine and American Am

1121

Elapsed Purge Time (in minutes)	Depth to Groundwater	рĦ	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C')	ORP (mV)	Notes
Initial Reading		6.31	8,73	2,2	3.41	13.32	170	
1126		6:15	8,74	2,2	0	13.72	160	
11.31		6112	8.72	2.1	0_	13.74	154_	
1136		6.10	8,69	2.1	0	13.81	15.2	



AN	MEC PROJECT 1	NUMBER6	228-12-002	1	_MONITOR	ING WELL	NUMBER _	MW-14S	
Sľ	TE NAME Duke	Energy-Spartanb	urg DA	TE 2-,	<u> 25-13</u> ェ	IME OF SAM	MPLE	1210	
FII	FLD PERSONN	EL TLH & RC				EATHER CO	ONDITIONS	_Clou	edy 450
111	LLD I ERROUN								/
TC	YTAT WELL DE	EPTH (TWD) <u>1</u>	4 88	FT. (m	easured / well	l tag / drillers	s log/ previou	ıs report – ci ı	rcle one)
20	OLUTE MEDE DE	RVAL4	8814.88		MEASURI	NG POINT I	FOR DEPTH	TOC	
20	EDELL TO CDOL	NDWATER (DG	W/)	9.03					
וע	EPTH TO GROU	TER COLUMN (Ι	WC) - TW	/D _ DGW =	5,8	5			
				D-DGW					
		ER <u>2</u> WELL VOLUME		9/. 201					
OI	NE STANDING	WELL VOLUME 0.02 G/FT: $\frac{3}{4}$ " = 0.02	,= <u></u> ,	y o oarda	r. 2" – 0 162	C/ET: 4"=	0 653 G/FT·	6" = 1 46 G	/FT)
(N	$[OTE \frac{1}{2}] = 0.010$	02G/FT: %" = 0.02 NG WELL VOLUI	23 G/F1: 1°	~0.041G/F. ```\`\`\ \\\\	1; Z = 0.103			1,40 U	1 X
TI	HREE STANDIN	G WELL VOLU	MES =	2100	FIVE STA		Don't Due	LLS —	
M	ETHOD OF WE	LL EVACUATIO	ON: BA	JLER PUN	IP// OTHER:	I I I I	V DATE	<u> カ</u> クク	mI /min
		OF WATER RE			(:	iAL, FLOV			
W	ELL TYPE: (LUSH MOUNT						ENTS	
	OCKING CAP				NO				
PI	ROTECTIVE PO	ST/ABUTMENT							
N	ONPOTABLE L	ABEL			ОИ				
П	PLATE		YF	ESX	NO				
		Y SATISFACTO							
W	ELL YIELD I	LOW	MODERA'	ГЕ	HIGH _		_ 		
	Elapsed			Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time	Depth to Groundwater	pН	(μS/cm)	(NTU)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(°C)	(mV)	Notes
1103	(in minutes)	<i>(</i>) 2()	/ O')	0.000	1.4	9.87	10.95	132	to have specification a contract of a contract
1152	Initial Reading		6.87		· · · · · · · · · · · · · · · · · · ·				
	1157	9,3		0.096			10.84	154	
	1202	9,31	6.38	0.098	0	2,14	10.74		
	1207	9,31	6,35	0.098		2.09	10.76	161	
	. <u></u>								
	-			<u> </u>					



		MONITOR	ING WE	LL SAMI	PLING FIF	ELD DATA	A WORKS	SHEET	
AM	EC PROJECT N	UMBER62	28-12-0021		_MONITORII	NG WELL N	UMBER	MW-14D	
				') - 7 /	1) mi	ATT OTT CAME	DIE 1.	くん!)	11.00
FIE	LD PERSONNE	Energy-Spartanbu L TLH & RC			WE	ATHER CO	NDITIONS_	Cloudy	45
7 11-	I LIKO OT W.							,	
то	TAL WELL DEI	PTH (TWD)34	1.61	FT. (me	asured / well	tag / drillers	log/ previous	report – circ	cle one)
SC	REENED INTER	RVAL 29.61-34.6	1		_MEASURIN	G POINT F	OR DEPTH_	TOC	
DE	DTU TO GROU	NDWATER (DG	W)	7,86_					
LE	NGTH OF WAT	ER COLUMN (L	WC) = TW	D – DGW =	26:7	5			
$C\Delta$	SING DIAMET	ER 2 I	N.						
ON	JE STANDING Y	WELL VOLUME	= 4,3	gal.					
	COTT 1/11 0 010/	0.027070, 3/22 - 0.00	2 C/ET: 1"=	= ∩ 041G/FT	e: 2" = 0.163 (G/FT: 4" = 0	.653 G/FT:	6" = 1.46 G/I	FT)
TI	IREE STANDIN	G WELL VOLUN	MES =	<u> 13.1)</u>	_ FIVE STAI	NDING WE	LL VOLUMI	ES = _	1,95
				and the same	· •	CENT TO LO	T		
TO	TAL VOLUME	LL EVACUATION OF WATER REM	MOVED: _	2.5	 G.	AL. FLOW	RATE	150 "	mL/min
W	ELL TYPE: F	LUSH MOUNT)	ABOVE G	RADE			COMME	итэ	
	OCKING CAP	And the Name of the Owner, when the Party of the Owner, when the Owner, which t	YES	s <u>x</u>	_NO		Well	does N	OT produce enough
PF	OTECTIVE PO	ST/ABUTMENT	YE	S	_NOX		Water	to sus	tain flow suther
	ONPOTABLE L			s <u>x</u>	_NO		tor lo	w How	sampling.
	PLATE		YE	S <u>X</u>	NO		Dew	ter We	11. recharge *
W	ELL INTEGRIT	Y SATISFACTO			NO			o per E	PA guidelines
W	ELL YIELD I	.ow	MODERAT	E	HIGH _				
	Elapsed			Cond.	Turbidity	Dis. O ₂	Temp	ORP	Notes
	Purge Time	Depth to Groundwater	рН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
13116	(in minutes)	0 / 1	1011	0116	0,5	12/05	11.12	140	
1240	Initial Reading	8,62	6.94	0.125		8,18	12.26	112	
	1245	9,65	7.19	0.164	0	2:03	12.38	103	increase flow
	1250	1016		0.182	0	7.58	14.01	9.3	sheen on
	1355	14,2	7.42	0.209		7.57		88	water
	1300	18.6	1 1	0,214	2.5		14.65	0 /	0-21/2
	1305	23.0		0,215	31	7,49	14.60		Ocy
	1310	27.2	1,50	0,216	2,4	7,47	גטיטו	07-	



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-15S	
SITE NAME Duke Energy-Spartanburg DATE 2-25-13 TIME OF SAMPLE 1010	
FIELD PERSONNEL TLH & RC WEATHER CONDITIONS Cloudy 450	
'	
TOTAL WELL DEPTH (TWD) 15.15 FT. (measured / well tag / drillers log/ previous report - circle one)	
SCREENED INTERVAL 5.15-15.15 MEASURING POINT FOR DEPTH TOC	
DEPTH TO GROUNDWATER (DGW) 6.31	
LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 8,84	
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = gal. 1, 45	
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)	
THREE STANDING WELL VOLUMES = 7.25	
METHOD OF WELL EVACUATION: BAILER PUMP/OTHER: TYPE Peri-Pump	
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE mL/min	
WELL TYPE: FLUSH MOUNT) ABOVE GRADE COMMENTS	
LOCKING CAP YES X NO Sheen in water	
PROTECTIVE POST/ABUTMENT YES NO X Odor present	
NONPOTABLE LABEL YES X NO	
ID PLATE YES X NO	
WELL INTEGRITY SATISFACTORY YES X NO	
WELL YIELD LOWMODERATEHIGH	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	
5 Initial Reading 6.40 6.71 0.136 204 8.42 9.82 113	
950 6,41 5,96 0,124 58.7 1,95 9,95 109	
955 6.41 5.93 0.128 31.2 1.65 10.02 115	
1000 6.41 5.43 0.126 19.2 1.25 10.14 114	
1005 6.41 5.94 0.126 21.5 1.16 10.16 112	



	6228-12-0021					
SITE NAME <u>Duke Energy-S</u>	partanburg DATE 2	<u> </u>	ME OF SAM	MPLE	115	1 (.30
FIELD PERSONNEL TLH	& RC	WE	EATHER CO	MOITION	S_Cloud	1y 430
						•
TOTAL WELL DEPTH (TW	D) <u>34.60</u> FT. ((measured / well	tag / drillers	log/ previou	us report – ci	rcle one)
SCREENED INTERVAL 29			IG POINT I	FOR DEPTH	OOTI	<u> </u>
DEPTH TO GROUNDWATI	ER (DGW)					
LENGTH OF WATER COLU	JMN (LWC) = TWD DGW	V = <u>27</u> ,	3			
CASING DIAMETER 2	_					
ONE STANDING WELL VO						
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$	"= 0.023 G/FT: 1"= 0.041G/	FT: 2" = 0.163 C	G/FT: 4" =	0.653 G/FT:	6" = 1.46 G	(FT)
THREE STANDING WELL	The second secon					<u> </u>
METHOD OF WELL EVAC	UATION: BAILER (PU	MP) OTHER:	TYPE	Peri-Pu	np	•
TOTAL VOLUME OF WAT	Parish and Parish	G/	AL. FLOW			
WELL TYPE: (FLUSH MO				COMME	ENTS	
LOCKING CAP		NO				
PROTECTIVE POST/ABUT		NO X				<u> </u>
NONPOTABLE LABEL		NO				
ID PLATE		NO				
WELL INTEGRITY SATISF		NO			 	
WELL YIELD LOW	MODERATE	HIGH				<u> </u>
Elapsed Depth Purge Time		Turbidity	Dis. O ₂	Temp	ORP	Notes
(in minutes) Grounds	water PH (µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
Initial Reading 2,0	4 6.78 0.33	24.6	3.17	10.12	142	
858 8.63	2 7,23 0.33	1 15.4	7.33	11.52	134	Lower Flow
903 8.6	9 7.29 0.33		2.08	12.05	126	
908 8.6	3 7.31 6.331	´ Po /	1.79	1210	120	
913 8.6			1.77	12.12	118	
					• • ===	



AMEC PROJECT I	NUMBER	<u> 6228-12-00.</u>				L NUMBER	1.0 1.00	
SITE NAME <u>Duk</u> e	Energy-Spartan	burg_DA	те <u>2</u>	<u>25/13 </u>	ΓIME OF SA	AMPLE	1015	A Mar Co
FIELD PERSONNI	EL <u>TLH & RC</u>	<u>, </u>		Iv	VEATHER (CONDITION	is <u>Good</u>	r Appx 40°F
							J	' ' '
TOTAL WELL DE	PTH (TWD)	18.35	FT. (r	neasured / we	ll tag / drille	rs log/ previo	ous report – c	circle one)
SCREENED INTE					ING POINT	FOR DEPT	HT <u>C</u>	OC
DEPTH TO GROU	NDWATER (DO	GW)	14.92					
LENGTH OF WAT	TER COLUMN (LWC) = TV	VD – DGW	=_3,4	13	,	-	
CASING DIAMET	ER 2	IN.	- 4					
ONE STANDING	WELL VOLUMI	E= <u>()</u> (56 gal.					
(NOTE $\frac{1}{2}$ " = 0.010								
THREE STANDIN	G WELL VOLU	MES =	1.68	FIVE STA	ANDING W	ELL VOLUI	MES =	1.8
METHOD OF WE			` .	MP/OTHER		PE <u>Peri-Pu</u>	mp	
TOTAL VOLUME	OF WATER RE	MOVED: _	0.7	<u>5 </u>	GAL. FLO	W RATE	150	mL/min
WELL TYPE: F	LUSH MOUNT	KABOVE C	GRADE)			COMM		- 1
LOCKING CAP		YE	ESX	NO		Com	<u>oletook</u>	Sampling
PROTECTIVE PO	ST/ABUTMENT	YE	ES	NOX	<u> </u>		1045	<u> </u>
NONPOTABLE LA	ABEL	YE	ES X	NO				· · · · · · · · · · · · · · · · · · ·
ID PLATE		YE	ESX	NO				
WELL INTEGRIT	Y SATISFACTO	RY YE	ES X	NO				
WELL YIELD L	.OW	MODERA	TE X	HIGH				
Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
Initial Reading	<u> 1505</u>	6.53	0.531	8.3	2.62	1097	192	1000 TIME
	15 14		0.512	4.3	1.30	10.85	192	1007
SEVERMIN.	15.15						194	1011
15 min	15.15 15.14	600	0.500 0.500	2.9	200	10.01	195	1011
13 0412	1 3 1121	U175	12,300	<u></u>	2.07	10.03		1013
			 			-		
					 			
								



AMEC PROJECT NUMBER	6228-12-0021		RING WELL			
SITE NAME Duke Energy-Sparta	nburg DATE Z	125/13	TIME OF SA	MPLE	0930	·)
FIELD PERSONNEL TLH & R			WEATHER C	ONDITIONS	(100dg	<u>404</u>
					I	
TOTAL WELL DEPTH (TWD) _	31.5 FT.	. (measured / we	ell tag / driller	s log/ previou	ıs report – ci	rcle one)
SCREENED INTERVAL	26.5-31.5	MEASUF	RING POINT	FOR DEPTH	TOC	<u> </u>
DEPTH TO GROUNDWATER (I)GW)	41				
LENGTH OF WATER COLUMN	(LWC) = TWD - DG	W =	1.09			
CASING DIAMETER2	_IN.					
ONE STANDING WELL VOLUM	$ME = \frac{2}{3} \frac{3}{3} ga^2$	1.				
(NOTE $\frac{1}{3}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.	.023 G/FT: 1"= 0.0410	G/FT: 2" = 0.16	3 G/FT: 4"=	0.653 G/FT:	6" = 1.46 €	3/FT) IJ
THREE STANDING WELL VOL						
METHOD OF WELL EVACUAT	ION: BAILER / P	UMP) OTHER	R: TYP	E <u>Peri-Pu</u>	mp	
TOTAL VOLUME OF WATER F	REMOVED:	5. Z <u>S</u>	GAL. FLO	W RATE	100	mL/min
WELL TYPE: FLUSH MOUN	T ABOVE GRADE				ENTS	
LOCKING CAP	YES X	NO		(im	plete. sa	impliagão 0950
PROTECTIVE POST/ABUTMEN	NT YES	NO	<u>X</u>			
NONPOTABLE LABEL	YES X	NO				
ID PLATE	YES X	NO			· · · · · · · · · · · · · · · · · · ·	
WELL INTEGRITY SATISFACT						
WELL YIELD LOW	_MODERATE	HIGH	[
Elapsed Depth to Groundwate (in minutes)	pΗ Cond (μS/cn	in an I be such that the	the second of the second of the second	Temp (°C')	ORP (mV)	Notes
Initial Reading 15.15	6.71 0.20	7 23.7	2.23	9.95	225	0906 time
6 montes 15.05		7 22.1	1.29	9.23	199	0912
10 moute 15.03	7.72 0.19			10.49	185_	0916
16 monte 15.05	7.30 0.20	Z 15.5	090	10.18	176	0922
71 minutes 15.04	1 7.34 0.20	12 8.S	0,85	10.29	169	0927
					:	
						



		NUMBER6					NOMBER _		
SI	TE NAME <u>Duk</u>	e Energy-Spartant	ourg DA	TE 2-2	<u> 27-13</u> т	TME OF SA	MPLE	935	4.60
FI	ELD PERSONN	EL TLH & RC			WW	EATHER C	ONDITIONS	S Sunn	y 45°
									,
TO	OTAL WELL DI	EPTH (TWD) <u>1</u>	5.15	FT. (n	neasured / we	1 tag / driller	s log/ previo	us report – c	ircle one)
		ERVAL 5			MEASUR	NG POINT	FOR DEPTI	<u>TO</u>	<u>C</u>
\mathbf{D}^{2}	EPTH TO GROU	JNDWATER (DO	iW)	3.68		1			
LI	ENGTH OF WA	TER COLUMN (I	LWC) = TV	VD – DGW :	=	1/			
\mathbf{C}_{i}	ASING DIAMET	ΓER <u>2</u>	IN.						
0	NE STANDING	WELL VOLUME	$E = \frac{1 \cdot \chi}{2}$	gal.					
		$02G/FT: \frac{3}{4}$ " = 0.02							
		NG WELL VOLU		Actioned					
		ELL EVACUATIO							
		OF WATER RE			<u>5 </u>	BAL. FLO			
		FLUSH MOUNT		FRADE			COMME	ENTS	
L	OCKING CAP	Adama to the description in the second secon	YE	ES <u>X</u>	NO				
PI	ROTECTIVE PO	OST/ABUTMENT	YE	ES	NOX	.			
N	ONPOTABLE L	ABEL			NO				
IΓ	PLATE		YE	ES <u>X</u>	NO				
		TY SATISFACTO			NO				
W	ELL YIELD	LOW	MODERA'	ΓΕ <u>σσον</u>	HIGH				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
ן כ	Initial Reading	3,43	7.02	0.226	32.2	6.85	11.65	138	
	922	3.52		0.215		0.66		135	Lower Flow
	927	3.52	7.02	0/2/3	23.2			132	
	932	3,52	7.02	0.213	11.8	0,18	11,96	130	
	10.4								
						<u> </u>			



AM.	EC PROJECT N	NUMBER62	28-12-002	1	_MONITORI	ng well i	NUMBER	MW-18S	+ Pup-1
CITI	STATE Date	E anore Constants	DAT	re 1-1	5-13 TI	ME OF SAM	IPLE	412	
FIE	LD PERSONNE	EL TLH & RC			WE	EATHER CO	ONDITIONS.	Clou	dy 47
ТО	TAL WELL DE	PTH (TWD)14	1.88	FT. (me	easured / well	tag / drillers	log/ previou	s report – cir	cle one)
SC	REENED INTEL	RVAL 4.	44- <u>14.88</u>		_MEASURIN	IG POINT F	OR DEPTH	TOC	
DE	PTH TO GROU	NDWATER (DG	W)	3.04					
LE	NGTH OF WAT	TER COLUMN (L	WC) = TW	D - DGW =	11.8	4			
CA	SING DIAMET	ER 2 I	N.						
ON	JE STANDING	WELL VOLUME	= 1,9	gal.					
(NT	OTE 1/2 - 0.010	2G/FT: 3/" = 0.02	3 G/FT: 1"	= 0.041 G/FT	C: 2" = 0.163	G/FT: 4"=	0.653 G/FT:	6" = 1.46 G/	/FT)
Τŀ	REE STANDIN	G WELL VOLUN	AES =	1.22	_ FIVE STA	NDING WE	LL VOLUM	$ES = \underline{I}$	
M	ETHOD OF WE	LL EVACUATIO	N: BA	ILER /PUM	OTHER:	TYPE	Peri-Pun	np	
TO	TAL VOLUME	OF WATER REM	MOVED: _	.5	G	AL. FLOV	V RATE	200	mL/min
W	ELL TYPE: (F	LUSH MOUNT/	ABOVE G	RADE			COMME	NTS	
LC	OCKING CAP		YE	S <u>X</u>	NO				
PF	OTECTIVE PO	ST/ABUTMENT	YE	S	NOX				
N	ONPOTABLE L	ABEL	YE	S <u>X</u>	NO				
Π	PLATE		YE	S_X_	NO				
W	ELL INTEGRIT	Y SATISFACTO	RY YE	ES X	NO				
W	ELL YIELD I	Low	MODERAT	ΓΕ	HIGH _				
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	Notes
	Purge Time (in minutes)	Groundwater	pН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
1400	Initial Reading	3,26	6.72	0.060	141	3.74	12.07	148	heavy Sheen
1 100	1405	3,25		0.054		0,46	11,92	177	, , , , , , , , , , , , , , , , , , ,
	1410	3,25	6113	0,050		0	11.68	179	
	1415	3,25	6.17	0.049	9,9	0	11,63	179	
		J . ~ J							
				1					



A	AMEC PROJECT	NUMBER	5228-12 - 00	21	MONITOR	ING WELL	NUMBER_	MW-18D	
	STENIAME Dub	e Energy-Spartant	nuro DA	TE 2-2	25-13 T	TME OF SA	MPLE	1235	
Ī	TIELD PERSONN	IEL TLH & RC		•	W	EATHER C	ONDITION	S Cloud	470
_									
-	OTAL WELL D	EPTH (TWD)3	35.05	FT. (n	neasured / wel	l tag / drille	rs log/ previo	us report – ci r	cle one)
•	SCREENED INTE	ERVAL	30.5-35.5		MEASURI	NG POINT	FOR DEPTI	TOC	
I	DEPTH TO GROU	UNDWATER (DO	6W)	4.75					
I	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW :	= <u> 30, </u>	}			
(CASING DIAME	ΓER <u>2</u>	IN.						
(ONE STANDING	WELL VOLUME	E = <u>5</u>	gal.					
(NOTE ½" = 0.010	$02G/FT: \frac{3}{4}$ " = 0.0	23 G/FT: 1	"= 0.041G/F	T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	6" = 1.46 G/	FT)
		NG WELL VOLU							
I	METHOD OF WE	ELL EVACUATIO	ON: BA	ALLER (FUN	AP/OTHER:	TYP	E <u>Peri-Pu</u>	mp	
	TOTAL VOLUMI	E OF WATER RE	MOVED: _		5	AL. FLO	W RATE	200	mL/min
7	WELL TYPE: /1	FLUSH MOUNT)	/ ABOVE (GRADE			COMMI	ENTS	
]	LOCKING CAP		YI	ES <u>X</u>	NO	<u>.</u>			
]	PROTECTIVE PO	ST/ABUTMENT	YI	ES	NOX	:			
1	NONPOTABLE I	ABEL	YI	ES <u>X</u>	NO				
]	D PLATE		YI	ES <u>X</u>	NO				
		ΓΥ SATISFACTO				*			
•	WELL YIELD	LOW	MODERA'	TE	HIGH _				
	Elapsed Purge Time	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
سم ۽ حدو ہ	(in minutes)								
1515	Initial Reading	<u>'''</u>	6,49		50.5				
		5.12	6,50	0.45	32.4	4.21	12.52		
	1235	5/12	6,50	0.144	15.5	1,35	12.56	156	
	1230	5.12	6,50	0.144	7.8	1,19	12.57	155	
	j								



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-19S	
SITE NAME Duke Energy-Spartanburg DATE 27-13 TIME OF SAMPLE 250	
FIELD PERSONNEL TLH & RC WEATHER CONDITIONS Sunny 43	
,	
TOTAL WELL DEPTH (TWD) 15FT. (measured / well tag / drillers log/ previous report – circle one)	
SCREENED INTERVAL 5-15 MEASURING POINT FOR DEPTH TOC	
DEPTH TO GROUNDWATER (DGW) 7.74	
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{7}{2}$	
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = 1 gal.	
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)	
THREE STANDING WELL VOLUMES = 3.67 FIVE STANDING WELL VOLUMES = 5.95	
METHOD OF WELL EVACUATION: BAILER PUMP / OTHER: TYPE Peri-Pump	
TOTAL VOLUME OF WATER REMOVED:	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE COMMENTS	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE COMMENTS LOCKING CAP YES X NO	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YESNO X	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE COMMENTS LOCKING CAP YES X NO NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE COMMENTS LOCKING CAP YES X NO YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO ID PLATE YES X NO	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE COMMENTS LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO ID PLATE YES X NO WELL INTEGRITY SATISFACTORY YES X NO	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE COMMENTS LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO ID PLATE YES X NO WELL INTEGRITY SATISFACTORY YES X NO WELL YIELD LOW MODERATE HIGH	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE COMMENTS LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO ID PLATE YES X NO WELL INTEGRITY SATISFACTORY YES X NO WELL YIELD LOW MODERATE HIGH Elapsed Depth to PH Cond. Turbidity Dis. O2 Temp ORP Notes	
WELL TYPE: FLUSH MOUNT ABOVE GRADE LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO ID PLATE YES X NO WELL INTEGRITY SATISFACTORY YES X NO WELL YIELD LOW MODERATE HIGH Elapsed Purge Time (in minutes) PH Cond. (NTU) Dis. O2 Temp ORP (my) Notes	
WELL TYPE: FLUSH MOUNTY ABOVE GRADE LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO ID PLATE YES X NO WELL INTEGRITY SATISFACTORY WELL YIELD LOW MODERATE HIGH Elapsed Purge Time Groundwafer PH (uS/cm) (NTU) COMMENTS COMMENTS COMMENTS HIGH NO NO NO NO Notes	

813

Elapsed Purge Time (in minutes)	Depth to Groundwater	Нд	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C.)	ORP (mV)	Notes
Initial Reading	7.43	6.18	0.468	428	5.83	7.65	152	
818	7.42	6.65	0.470	778	2.92	10.00	155	
823	7.92	6.59	0.465	179	2.74	10.25	154	
828	7.92	6.51	0465	121	2,35	10.69	153	
833	7,92	6.50	0.465	8 3.8	2.35	10,93	152	
838	7.92	6,48	0.465	36.2	2.37	11.08	151_	
843	7,92	6.48	0,465	9.7	2.38	11.09	150	
						_		



AMEC PROJECT N	NUMBER 62	<u> 228-12-0021</u>		_MONITOR	ING WELL	NUMBER _	OR-3S		
SITE NAME <u>Duke</u>	Energy-Spartanb	urgDAT	E <u>2-18-13</u>	3T]	ME OF SAM	MPLE	1213	>	
FIELD PERSONNE	EL_TLH	<u> </u>		W	EATHER CO	ONDITIONS	Sun,	A19 . 60	~
								0	
TOTAL WELL DE	PTH (TWD)	3 24.5	FT. (m	easured / well	tag / drillers	s log/ previou	ıs report – cir	cle one)	
COPENED INTE	RVAT 8.	11 14.S	1-24.4	MEASURI	NG POINT I	FOR DEPTH	TOC		
DEPTH TO GROU	NDWATER (DG	(W) 5	10 F>	45.4	3 8 C	フ			
LENGTH OF WAT	TER COLUMN (I	LWC) = TWI	 D – DGW =	#FOS	B E	<i>758</i>	15.75		
CASING DIAMET	ER 2 J	IN				-	·		
ONE STANDING	WELL VOLUME	:=a	<u> </u>	2,58					
$\triangle 10$ TE 12 " -0.010	$2G/ET \cdot \frac{3}{2} = 0.02$	23 G/FT: 1"=	= 0.041G/F]	$\Gamma: 2" = 0.163$	G/FT: 4"=	0.653 G/FT:	6" = 1.46 G/	/FT)	
THREE STANDIN	G WELL VOLU	$MES = \frac{7}{7}$	14_	FIVE STA	NDING WE	ELL VOLUM	IES =	- 14,9	
METHOD OF WE	LL EVACUATIO	N: BAI	LER / PUM	IP / OTHER:	TYPI	E <u>Peri-Pur</u>	<u>np</u>		
TOTAL VOLUME	OF WATER RE	MOVED: _	0.2	<u>_</u> G	AL. FLOV	W RATE	100	mL/min	
WELL TYPE: F						COMME	ENTS		
LOCKING CAP				NO					
PROTECTIVE PO	ST/ABUTMENT	YES	3	NOX					
NONPOTABLE L.			SX	NO					
ID PLATE		YES	sx	NO					
WELL INTEGRIT	Y SATISFACTO	RY YES	s <u>X</u>	NO				· · · · · · · · · · · · · · · · · · ·	
WELL YIELD I								<u> </u>	
Elapsed					Dis. O ₂	Temp	ORP		
Purge Time	Depth to Groundwater	pН	Cond. (μS/cm)	Turbidity (NTU)	(mg/L)	(°C)	(mV)	Notes	
(in minutes)		70	28G	388	3.01	19.43	156	11119	
Initial Reading	8.75	000	2 10	103	0.62	1022	172	1455	
6min	9.63	6.85	2010	700	0002	2000	101-2	1500	\neg
11 mm	7.65 9.88 10.00	6.90	<u> </u>	20.8	0.03	71) []	2011	1506	
1-7min	10000	6.70	2.35	25.	0.00	20.11	200	1300	_
									_
									_
				<u> </u>			<u></u>		
			<u> </u>	<u> </u>					
				ļ					



AMEC PROJECT NUMBER	6228-12-0021	MONITOR	ING WELL 1	NUMBER_	OR-5S	
Curate	-1 DATE 2.15	2 12 T	IME OF SAM	MELE	14(ノ〇 -	
SITE NAME <u>Duke Energy-spartar</u> FIELD PERSONNEL <u>TLH</u>		W	EATHER CO	NDITIONS	5 Duni	15,60°
TOTAL WELL DEPTH (TWD),	№ 25 FT.	(measured / wel	l tag / drillers	log/ previou	ıs report – c ir	cle one)
SCREENED INTERVAL	843 20-25	MEASURI	NG POINT F	OR DEPTH		
DEPTH TO GROUNDWATER (D	OGW) <u> </u>	.65				
LENGTH OF WATER COLUMN	(LWC) = TWD - DG	w= le t_	,95			
CASING DIAMETER 2		·				
ONE STANDING WELL VOLUM	ME = ga	ĺ.				
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.	023 G/FT: 1"= 0.0410	G/FT: 2" = 0.163	G/FT: $4" = 6$	0.653 G/FT:	6" = 1.46 G/	/FT)
THREE STANDING WELL VOL	UMES =	FIVE STA	ANDING WE	LL VOLUM	IES =	<u> </u>
METHOD OF WELL EVACUAT	ION: BAILER / P	UMP / OTHER:	TYPE	Peri-Pur	mp /ssca	
TOTAL VOLUME OF WATER R		<u>.5 </u>	GAL. FLOV	V RATE	100_	mL/min
WELL TYPE: FLUSH MOUNT				COMME	ENTS	
LOCKING CAP		NO				
PROTECTIVE POST/ABUTMEN		NOX				
NONPOTABLE LABEL		NO				
ID PLATE		NO				
WELL INTEGRITY SATISFACT		NO				
WELL YIELD LOW	_MODERATE _ <				a tradicional Pou	
Elapsed Purge Time (in minutes) Depth to Groundwater	pH Cond (μS/cr	Carrier Miles Miles area (1987)	THE STREET SHEAR STREET, MAIN	Temp (°C)	ORP (mV)	Notes
Initial Reading 100493	6.39 0.51	5 9.7	7.49	17.82	123	1344
1 12 02	C 50 004	414.8	2,15	1823	102_	1352
10 117 77	664 0.41	1 5.2	Z-28	F6.31	97	1356
18 minute 12085	6.69 0.39	7204	2.43	18.39	92	1402
10 1/11/12						





AMEC PROJECT	NUMBER 6	522 <u>8-12-</u> 002	21	MONITOR	ING WELL	NUMBER_	OR-10S		
SITE NAME Dul	ce Energy-Spartant	ourg DA	те 🚱 2	2/28/19 T	IME OF SAI	MPLE	<u> 083</u>	<u></u>	
	VEL TLH & RC			w	EATHER C	ONDITIONS	Suna	45°F	<u>_1^</u> Анс (ч
TOTAL WELL D	EPTH (TWD) <u>2</u> 5	8-87	<u>. </u>	easured / wel	l tag / driller	s log/ previou	ıs report – ci	rcle one)	
SCREENED INT	erval	-25		MEASURI	NG POINT	FOR DEPTH	[TOO	3	
DEPTH TO GRO	UNDWATER (DO	GW)	8.87						
LENGTH OF WA	ATER COLUMN (LWC) = TV	VD – DGW =	= 16.	13				
CASING DIAME	TER	IN.							
ONE STANDING	WELL VOLUMI	E=2	$\frac{5}{\text{gal}}$						
(NOTE $\frac{1}{2}$ " = 0.01	$02G/FT: \frac{3}{4}$ " = 0.0	23 G/FT: 1'	'= 0.041G/F					/FT)	
	NG WELL VOLU								
METHOD OF W	ELL EVACUATIO	ON: BA	JLER / PUN	IP)/OTHER:		E <u>Peri-Pur</u>			
TOTAL VOLUM	E OF WATER RE	EMOVED: _	00	5 0	GAL, FLO				
WELL TYPE:	FLUSH MOUNT					COMME	ENTS		_
LOCKING CAP		YE	ES <u>X</u>	NO		<u></u>			_ _
PROTECTIVE P	OST/ABUTMENT	r YE	ES	NOX	· ·		 		
NONPOTABLE	LABEL			NO				<u> </u>	_
ID PLATE				NO			<u> </u>		
	TY SATISFACTO			NO			· · · · · · · · · · · · · · · · · · ·		
WELL YIELD	LOW	_MODERA′	ΓΕ	HIGH _				10.	777
Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (μS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
Initial Reading	10.41	691	0.741	38.4	13.58	4.20	13	0814	
4 min	11.38	688	1.04				2	0818	
11 mm	12.54	·-	6.64	34.6	7.72	6,28	107	0825	_
15 mm	13.65	6,30	14.1	31.7	9.94	705	182	0629	
ZOMIN		6.28	14.7	34.4	8.28	8.03	199	0834	taci ra
25 mm	16.15	6.22	ISB	35.9	7.30	8076	216	0839, sait	PIRW
SIMIL	16.58	6.31	15.3	298	6.79	9.58	217	0845	_
	16.00	6.0	1	777	021	000	クラー	0849	



AMEC PROJECT NUMBER 6228-12-0021	_MONITORING WELL NUMBEROR-3W
SITE NAME <u>Duke Energy-Spartanburg</u> DATE 2/28	TIME OF SAMPLE 0735
FIELD PERSONNEL TLH & RC	WEATHER CONDITIONS Sunny, US of in ma
TOTAL WELL DEPTH (TWD) 23 FT. (means SCREENED INTERVAL 18-23	easured / well tag / drillers log/ previous report – circle one) MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 8.40	
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =	
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = 2.3 gal.	
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT:	: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
	FIVE STANDING WELL VOLUMES =
	POTHER: TYPE <u>Peri-Pump</u>
TOTAL VOLUME OF WATER REMOVED:	GAL. FLOW RATE 100 mL/min
WELL TYPE: FLUSH MOUNT / ABOVE GRADE	COMMENTS
LOCKING CAP YES X	_NO
PROTECTIVE POST/ABUTMENT YES	NO X
NONPOTABLE LABEL YES X	_NO
ID PLATE YES X	_NO
WELL INTEGRITY SATISFACTORY YES X	_NO
WELL YIELD LOWMODERATE	HIGH
	Turbidity Dis. O ₂ Temp ORP Notes (NTU) (mg/L) (CC)
	30.7 487 1032 260 0930
5 min 9.80 6.10 9.07	20.2 068 10.74 257 0935
10 mg 10.18 6,06 8.61	13-0 1.70 11.40 253 0940
1-tnn 10033 6.07 8.06 C	7.4 1.52 11.85 250 0947
ZOmn 10,42 6,08 7.88:	3.3 1044 12.10 248 0950
ZSma 10 = 45 6.10 7.76	2.8 1.38 12.26 248 098



AMEC PROJECT NUMBER 6228-12-0021 MONTI	TORING WELL NUMBER OR-5W
SITE NAME Duke Energy-Spartanburg DATE 2-18-13	_ TIME OF SAMPLE
FIELD PERSONNEL TLH	WEATHER CONDITIONS Sunny, 50°C
TOTAL WELL DEPTH (TWD) 13 24 FT. (measured /	
SCREENED INTERVAL 8-13 17-24 MEASI	
DEPTH TO GROUNDWATER (DGW) 9.34	
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = /L/	.66
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = 203 gal.	
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.	and the second s
THREE STANDING WELL VOLUMES =FIVE S	_
METHOD OF WELL EVACUATION: BAILER / PUMP / OTH	ER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED:	_ GAL. FLOW RATE(OOmL/min
WELL TYPE: FLUSH MOUNT / ABOVE GRADE	COMMENTS
LOCKING CAP YES X NO	
PROTECTIVE POST/ABUTMENT YESNO	<u>X</u>
NONPOTABLE LABEL YES X NONO	
ID PLATE YES X NO	
WELL INTEGRITY SATISFACTORY YES X NO	
WELL YIELD LOW MODERATE HIG	H
Elapsed Purge Time (in minutes) Depth to Groundwater PH (μS/cm) Turbidi (NTU)	NATIONAL TRANSPORTED A TRANSPORTED AND AND AND AND AND AND AND AND AND AN
Initial Reading 10,59 549 4.38 61.2	3.09 12.68 266 10842
4 mm 1/030 5.73 426 27.8	8 1275 13.05 275 10846
10min 11090 5.73 3.95 13.3	3 1.33 13.50 28 1 10:52
15 nn 12.44 5,76 3,72 804	
22mm 12080 5078 3070 10.2	- 0.96 14.37 286 11304
28mm 13010 584 3071 9.8	



AMEC PROJECT	NUMBER <u>6</u>	5228-12-002	.1	_MONITOR	UNG WELL	NUMBER_	OR-10W	
SITE NAME <u>Duke</u>	e Energy-Spartant	ourgDA	TE 2-18-1	3T	IME OF SA	MPLE	124	>
FIELD PERSONN	EL_TLH			W	EATHER C	ONDITION	S_5ung	45%
					_		0	
TOTAL WELL DE	EPTH (TWD)	x 225	FT. (m	neasured// wel	l tag)/ driller	s log/ previo	us report – ci	rcle one)
SCREENED INTE	RVAL8	3-13-18.	<u>5-22.5</u>	MEASUR	NG POINT	FOR DEPTI	HTOO	2
DEPTH TO GROU	JNDWATER (DO	3W)	<u> 4080</u>	<u> </u>			•	
LENGTH OF WA	TER COLUMN (1	LWC) = TW	/D – DGW =	= 12	. 07		•	
CASING DIAMET	TER	IN.						
ONE STANDING	WELL VOLUME	E= <u>Z</u> ,	o gal.					
(NOTE ½" = 0.010)2G/FT: ¾" = 0.0	23 G/FT: 1"	°= 0.041G/F	T: $2" = 0.163$	G/FT: 4"=	0.653 G/FT:	: 6" = 1.46 G	/FT)
THREE STANDIN				' \				
METHOD OF WE			_				1/1/	
TOTAL VOLUME	OF WATER RE	MOVED: _	1.	<u>C</u> (GAL. FLO	W RATE	100_	mL/min
WELL TYPE:	FLUSH MOUNT	/ ABOVE C	RADE			COMMI	ENTS	
LOCKING CAP		YE	SX	NO				
PROTECTIVE PO	ST/ABUTMENT	YE	S	NOX	· 			
NONPOTABLE L	ABEL	YE	SX	NO	<u>-</u> _			
ID PLATE		YE	SX	NO				
WELL INTEGRIT						 -		
WELL YIELD I	LOW	MODERAT	TE	HIGH		<u> </u>		
Elapsed	Depth to		Cond.	Turbidity	Dis. O2	Тетр	ORP	Notes
Purge Time (in minutes)	Groundwater	рH	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
Initial Reading	10.21	\$5.89	6.61	10.6	6.88	14.28	264	1211
Unn	10.90	5.83	6.68	10.2	1.73	14.56	274	1215
10 min			7 72	80			728	1221
	//.25	15 749	4 20	0.9	1018	15.05	670	
16 mm	11.31	5,79	7.87	8.9 3.6		15.00 15.58		1227
16 ~ 3	11.31	5,70	7.87					1227
		5,70	7.87 7.64	3.6 3.6	0.83	is 58 15.70	286	1227



	AMEC PROJECT	NUMBER	5228 - 12-00	21	MONITOI	RING WELL	NUMBER	OS-5N	
;	SITE NAME <u>Duk</u>	e Energy-Spartani	burg DA	ATE 2-)8-1	3Т	TIME OF SA	MPLE	KB 110	9 <u>0 </u>
-	FIELD PERSONN	EL <u>TLH</u>			WW	EATHER C	ONDITION	s <u>46°</u>	Partly Sunn
							•		
,	TOTAL WELL DI	EPTH (TWD)	13	FT. (n	neasured / wei	ll tag / drille:	s log/ previo	ous report – ci	ircle one)
	SCREENED INTE					ING POINT	FOR DEPT	H <u>TO</u>	<u> </u>
	DEPTH TO GROU	JNDWATER (DO	3W)	6.8	74				
	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= <u> 6'</u>	16		<u>-</u>	
	CASING DIAME			A.1					
	ONE STANDING								
	(NOTE $\frac{1}{2}$ " = 0.010								
	THREE STANDII				then.				
	METHOD OF WE	ELL EVACUATION	ON: BA	AILER (PUN	/IP) / OTHER:	TYP:	E <u>Peri-Pu</u>	ımp	
•	TOTAL VOLUM	E OF WATER RE	MOVED:	Bright Committee and Committee	.5(GAL. FLO	W RATE		mL/min
	WELL TYPE: I	FLUSH MOUNT	(ABOVE (GRADE			COMM	ENTS	
	LOCKING CAP			_	NO		D.	ultate	70
	PROTECTIVE PO	ST/ABUTMENT					reis	ullate	10 Mag
	NONPOTABLE L	ABEL			NO				
	ID PLATE				NO				
	WELL INTEGRIT								
	WELL YIELD 1	LOW	MODERA	TE	HIGH	I'm and a second	——————————————————————————————————————	I. T. L. Language	Franklik Williamski delikera (h. 1871)
	Elapsed Purge Time (in minutes)	Depth to Groundwater	þН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1041	Initial Reading	7.03	6:13	2.26	492	7.04	14,32	144	
10 11	1046	# 1971 - F	601	2,07		3,22		144	
	1051			2.06		3.23	14 48	142	
	1056	703	5.97	2.06		3.25	14.52		
				1					
							1		



	<u>6228-12-002</u>	21	MONITOR	UNG WELL	NUMBER	OS-5E	
SITE NAME Duke Energy-Spartan	burg DA	TE 2- <u>1</u> 8-1	<u>.3 </u>	IME OF SA	MPLE	1000	
FIELD PERSONNEL TLH			W	EATHER C	ONDITION	s Partly	Cloudy 43
						,	ľ
TOTAL WELL DEPTH (TWD)							
SCREENED INTERVAL	8-13		MEASUR	NG POINT	FOR DEPTI	H TOC	
DEPTH TO GROUNDWATER (D	GW)	<u> ファユ</u>					
LENGTH OF WATER COLUMN ((LWC) = TW	VD – DGW	= 5.7	7			
CASING DIAMETER 2		ليبر					
ONE STANDING WELL VOLUM							
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.0							
THREE STANDING WELL VOLU							
METHOD OF WELL EVACUATION			***				
TOTAL VOLUME OF WATER RI	EMOVED: _		(AL. FLO			
WELL TYPE: FLUSH MOUNT	/ ABOVE G	RADE			COMME	ENTS	
LOCKING CAP			NO		A	16.4	7.0
PROTECTIVE POST/ABUTMENT					<u> </u>	uliale -	70 mg/l
NONPOTABLE LABEL			NO				
ID PLATE	YF	S X	NO				
					•		· · · · · · · · · · · · · · · · · · ·
WELL INTEGRITY SATISFACTO	ORY YE	S_X	NO				
	ORY YE	S_X	NO				
WELL INTEGRITY SATISFACTO	ORY YE	ES X TE Cond.	NO	Dis. O	Temp (°C)	ORP (mV)	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Purge Time (in minutes) Depth to Groundwater	DRY YE_MODERAT	Cond. (µS/cm)	NO HIGH_ Turbidity (NTU)	Dis; O ₂ (mg/L)	(°C)	(mV)	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Depth to Groundwater (in minutes) Initial Reading 7, 72	DRY YE MODERAT	Cond. (µS/cm)	NOHIGH _ Turbidity(NTU)	Dis; O ₂ (mg/L)	(C) 13:17	(mV) 135 ²	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed	PRY YE MODERATE PH	Cond. (µS/cm) 3. 10 3.10	NOHIGH _ Turbidity(NTU)	Dis; O ₂ (mg/L)	(C) 13:17	(mV) 138 136	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Purge Time (in minutes) Initial Reading 7, 72 946 2, 72 945 7, 72	PRY YE MODERATE PH 6.71 6.76 6.78	Cond. (µS/cm) 3. 10 3.10 3.10	NO	Dis. O ₂ (mg/L) 30.91 16:18	(c) 13:13 13:02 13:06	(mV) 138 136 137 .	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Depth to Groundwater (in minutes) Initial Reading 7,72 940 2,72 945 7,72 950 7,72	PRY YE MODERATE PH	Cond. (µS/cm) 3. 10 3.10	NOHIGH _ Turbidity(NTU)	Dis; O ₂ (mg/L)	(C) 13:17	(mV) 138 136 137 .	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Purge Time (in minutes) Initial Reading 7, 72 946 2, 72 945 7, 72	PRY YE MODERATE PH 6.71 6.76 6.78	Cond. (µS/cm) 3. 10 3.10 3.10	NO	Dis. O ₂ (mg/L) 30.91 16:18	(c) 13:13 13:02 13:06	(mV) 138 136 137 .	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Depth to Groundwater Initial Reading 7,72 940 2,72 945 7,72 956 2,72	PRY YE MODERATE PH 6.71 6.76 6.78	Cond. (µS/cm) 3. 10 3.10 3.10	NO	Dis. O ₂ (mg/L) 30.91 16:18	(c) 13:13 13:02 13:06	(mV) 138 136 137 .	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Depth to Groundwater (in minutes) Initial Reading 7,72 940 2,72 945 7,72 950 7,72	PRY YE MODERATE PH 6.71 6.76 6.78	Cond. (µS/cm) 3. 10 3.10 3.10	NO	Dis. O ₂ (mg/L) 30.91 16:18	(c) 13:13 13:02 13:06	(mV) 138 136 137 .	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Depth to Groundwater Initial Reading 7,72 940 2,72 945 7,72 956 2,72	PRY YE MODERATE PH 6.71 6.76 6.78	Cond. (µS/cm) 3. 10 3.10 3.10	NO	Dis. O ₂ (mg/L) 30.91 16:18	(c) 13:13 13:02 13:06	(mV) 138 136 137 .	Notes
WELL INTEGRITY SATISFACTO WELL YIELD LOW Elapsed Depth to Groundwater (in minutes) Initial Reading 7,72 940 2,72 945 7,72 950 7,72	PRY YE MODERATE PH 6.71 6.76 6.78	Cond. (µS/cm) 3. 10 3.10 3.10	NO	Dis. O ₂ (mg/L) 30.91 16:18	(c) 13:13 13:02 13:06	(mV) 138 136 137 .	Notes



AMEC PROJECT NUMBER							
SITE NAME <u>Duke Energy-Spartar</u>	iburg DAT	E <u>2-18-</u> 1	13T	IME OF SA	mple \mathscr{Z}	40	
FIELD PERSONNEL TLH			W	EATHER C	ONDITION	s Junny	43"
						,	
TOTAL WELL DEPTH (TWD)	13	FT. (n	neasured / wel	l tag / drille:	rs log/ previo	us report – ci	rcle one)
SCREENED INTERVAL	8-13		MEASURI	NG POINT	FOR DEPTH	HTOO	C
DEPTH TO GROUNDWATER (D	GW) <u>6</u>	· 75					
LENGTH OF WATER COLUMN	(LWC) = TWD	D – DGW	= 6.25)* !			
CASING DIAMETER 2	_IÑ.						
ONE STANDING WELL VOLUM	E= 1,03	gal.	•				
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.0							
THREE STANDING WELL VOLU	JMES =	<u> 109 </u>	FIVE STA	NDING WI	ELL VOLUM	1ES = 5	1.5
METHOD OF WELL EVACUATION	ON: BAII	ÆR∢ PÜÑ	MB/OTHER:	TYP	E <u>Peri-Pu</u>	np	
TOTAL VOLUME OF WATER RI	EMOVED:	d'	<u>5</u>	AL. FLO	W RATE		mL/min
WELL TYPE: FLUSH MOUNT	ABOVE GR	ADE			COMME	ENTS	
LOCKING CAP	YES	X	NO		P23	sultat	e= 14 mg/
PROTECTIVE POST/ABUTMENT	Γ YES		NOX				
NONPOTABLE LABEL	YES	X_	NO	.		 	
ID PLATE	YES	X	NO				
WELL INTEGRITY SATISFACTO	DRY YES	X	NO				
WELL YIELD LOW	MODERATE		HIGH _		→		
Elapsed Purge Time (in minutes) Depth to Groundwater		Cond. (µS/cm)	Turbidity (NTU)	Dis, O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
\$	6.99 6	2,522	270	11 53	10.77	1006	
^				11.57	10.64	105	
174	7.00 0		746	4 78		103 98	
	6.99 0						
837 7.0	6'11 C	.4/1	23.4	6.47	10 105	76	
		<u>.</u> .					
•	1						



A	MEC PROJECT	NUMBER6	228-12-002	21	MONITOR	ING WELL	NUMBER_	OS-5S	+ Dup-L
ÇT	TENAME Dob	e Energy-Spartanh	nira DA	TE 2-18-1	3 T	IME OF SAI	MPLE /	2 <i>00</i>	
Fl	ELD PERSONN	EL TLH			W	EATHER C	MOITION	s Clou	dy 46°
		EPTH (TWD) <u>1</u>							
S	CREENED INTE	ERVAL8	3-13		MEASURI	NG POINT	FOR DEPTI	HTO	C
D	EPTH TO GROU	JNDWATER (DO	iW)	7,80	1				
L	ENGTH OF WA	TER COLUMN (I	LWC) = TV	VD – DGW	= <u> </u>				
C.	ASING DIAMET	ΓER <u>2</u>	IN.)					
		WELL VOLUME							
(1)	NOTE 1/2" = 0.010	$0.02G/FT$: $\frac{3}{4}$ " = 0.02	23 G/FT: 1'	'= 0.041G/F	T: $2" = 0.163$	G/FT: 4" =	0.653 G/FT	: 6" = 1.46 (G/FT)
		NG WELL VOLU							
		ELL EVACUATIO							
T	OTAL VOLUMI	E OF WATER RE	MOVED:	2.22.400 man	5	AL. FLO			
V	/ELL TYPE: I	FLUSH MOUNT	. .	- ALEXAND			COMMI	ENTS	
Γ	OCKING CAP		YI	es <u>x</u>	NO		. 0	161	70 //
P :	ROTECTIVE PO	ST/ABUTMENT			NOX			Sullate	= 70 mg/L
N	ONPOTABLE L	ABEL			NO				
II	O PLATE				NO				
		TY SATISFACTO			NO			,	
N	/ELL YIELD I	LOW	MODERA'	TE	HIGH _				- 1
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рĦ	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C·)	ORP (mV)	Notes
114)	Initial Reading	8.55	8.22	32,2	NM	26.33	16:05	280	
11.18	1147			77.1	281		15.40		Turn Flow down
	1151	8.62	8.24	37 l	145	14.76	15.32	223	
	1153	8.62	8.32		98.7	14.25	15,28	274	
		() v- \	<u>er syes</u>		, , ,	7.1.29		1.00	



		NUMBER6							
;	SITE NAME <u>Duk</u>	e Energy-Spartant	ourgDA	TE <u>2-)8-1</u>	3 T	IME OF SA	MPLE	1325	4 1
3	FIELD PERSONN	EL TLH			W	EATHER C	ONDITIONS	16° C	loudy
									,
	TOTAL WELL DI	EPTH (TWD)1	.3	FT. (n	neasured / wel	l tag / driller	s log/ previo	ıs report — ci	rcle one)
	SCREENED INTE				MEASURI	NG POINT	FOR DEPTE	ITOO	2
	DEPTH TO GROU	UNDWATER (DO	ïW)	8.3	. Jan				
	LENGTH OF WA	TER COLUMN (I	LWC) = TV	VD – DGW :	= <u>4 X</u>				
	CASING DIAMET	ΓER <u>2</u>	IN.						
,	ONE STANDING	WELL VOLUME	=_ <u>Ø</u>	$74_{\rm gal.}$					
	(NOTE ½" = 0.010	02G/FT: ¾" = 0.02	23 G/FT: 1'	'= 0.041G/F	T: 2" = 0.163	G/FT: 4"=	0.653 G/FT:	6" = 1.46 G	/FT)
	THREE STANDII	NG WELL VOLU	MES =	2,37	FIVE STA	NDING WI	ELL VOLUM	IES = <u>5</u> ;	43
	METHOD OF WE	ELL EVACUATIO	N: BA	ILER (PÜN	TPY OTHER:	TYP	E <u>Peri-Pur</u>	np	
	TOTAL VOLUMI	E OF WATER RE	MOVED:			AL. FLO	W RATE		mL/min
	WELL TYPE: 1	FLUSH MOUNT	ABOVE C	RADE			COMME	NTS	
	LOCKING CAP		YE	S X	NO			16.1	A: HOLL
	PROTECTIVE PO)ST/ABUTMENT	YE	ES	NOX	· · · · · · · · · · · · · · · · · · ·	<u>Vers</u>	ulate_	70 ng/L
	NONPOTABLE L	ABEL	YH	ESX	NO	<u>-</u>			
	ID PLATE		YE	ES <u>X</u>	NO	··· ·			
	WELL INTEGRIT	ΓΥ SATISFACTO	RY YI	ES <u>X</u>	NO				
	WELL YIELD	LOW	MODERA	ГЕ	HIGH _		<u> </u>		
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	pН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes
1305	Initial Reading	8.18	227	9.69	NR	1 13	15:43	64	
ן טנין	1310	8.10	······································	8.07	42.3	0.07		98	
	1315	8.10	631	7 55	24.4		15:89	114	
	1320	3.10	6.28	2,44	18.2	0	15.87	119	
	1320	000	0120	71 1	10, 8	<u> </u>	13.27		
		-							
							-		
		<u> </u>					<u> </u>		



AMEC PROJECT NUMBER 622		_MONITORIN				
SITE NAME Duke Energy-Spartanbur	g DATE 2-18-13	3 TIM	E OF SAM	PLE <i>] </i>	120_	
FIELD PERSONNEL TLH		WEA	ATHER CO	NDITIONS	Cloud	14 500
TOTAL WELL DEPTH (TWD) 13	FT. (m	easured / well ta	ng / drillers l	og/ previou	s report – ci r	cle one)
SCREENED INTERVAL 8-1	3	_MEASURING	G POINT FO	OR DEPTH	TOC	
DEPTH TO GROUNDWATER (DGW	n - 7:96					
LENGTH OF WATER COLUMN (LV	VC) = TWD - DGW =	5.0	4			
CASING DIAMETER 2IN	Ι.					٠
ONE STANDING WELL VOLUME =	= <u>O (S</u> 3 gal.					
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023	G/FT: 1"= 0.041G/F7	r: 2" = 0.163 G/	'FT: 4" = 0.	653 G/FT:	6" = 1.46 G/	/FT)
THREE STANDING WELL VOLUM						
METHOD OF WELL EVACUATION	: BAILER/FUM	P OTHER:	TYPE	Peri-Pun	np	
TOTAL VOLUME OF WATER REM	OVED:	GA1	L. FLOW	RATE	· · · · · · · · · · · · · · · · · · ·	mL/min
WELL TYPE: FLUSH MOUNT /(A	BOVE GRADE			- COMMEI	VTS	
LOCKING CAP	YES X	NO		Perso	ilfate =	= 1.1 mg/
PROTECTIVE POST/ABUTMENT	YES	_NOX_				
NONPOTABLE LABEL	YES X	NO				
ID PLATE	YES X	NO				
WELL INTEGRITY SATISFACTOR	Y YES X	NO	<u>.</u>			
WELL YIELD LOWM	ODERATE	HIGH				
Elapsed Depth to Groundwater	pH Cond. (µS/cm)	Collection Conference - 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1409 Initial Reading 8,55	7.13 0.850	159	12.48	15.14	76	
1409 8165	7.12 0.538	103		14,43	72	Lower Flow
1414 8,65	211 0:538	72.8	5.24	14.85	69	
1419 8,65	7.11 0,535	4812	5.11	14,83	68	
				-		



AMEC PROJECT NUMBER 6228-12-0021	
SITE NAME <u>Duke Energy-Spartanburg</u> DATE 2-18-13	TIME OF SAMPLE
FIELD PERSONNELTLH	weather conditions_Sunny_455
	P
TOTAL WELL DEPTH (TWD) 13 FT. (mea	
SCREENED INTERVAL 8-13	MEASURING POINT FOR DEPTHTOC
DEPTH TO GROUNDWATER (DGW) 60 IS	11 00
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = _	
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = C , 2 gal.	
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1"= 0.041G/FT:	2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
	FIVE STANDING WELL VOLUMES =
METHOD OF WELL EVACUATION: BAILER PUMP	
TOTAL VOLUME OF WATER REMOVED:	GAL. FLOW RATE 100 mL/min
WELL TYPE: FLUSH MOUNT (ABOVÉ GRADE)	COMMENTS
	NO POISUITATE - SSMG/
	NOX
	NO
	_NO
	NO
WELL YIELD LOWMODERATE	HIGH
Elapsed Depth to Purge Time (in minutes) Condwater PH (μS/cm)	Turbidity Dis. O ₂ Temp ORP Notes (NTU) (mg/L) (°C)
Initial Reading 8, 15 6,26 0,306	48.3 3.08 13.55 84 1500
5 9 9 6 530,3911	4197621345 82 1506
6 813 6500 FO3	33.42.47 13.47 82 1510
6 6 6 0 449	33.4 2.47 13.47 82 ISIC 31.2 2.65 1353 74 1515
13mn 8:10	



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OS-25S

SITE NAME <u>Duke Energy-Spartanburg</u> DATE <u>2-18-13</u>	TIME OF SAMPLE 1410
FIELD PERSONNEL TLH	weather conditions Sunny 45°F
·	
TOTAL WELL DEPTH (TWD) 13 V FT. (me	easured / well tag / kirillers log/ previous report – circle one)
SCREENED INTERVAL 8-13 V	MEASURING POINT FOR DEPTHTOC
DEPTH TO GROUNDWATER (DGW) 8.09	
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =	4.92
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = gal.	
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT	T: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES =	_ FIVE STANDING WELL VOLUMES =
METHOD OF WELL EVACUATION: BAILER (PUM)	OTHER: TYPE <u>Peri-Pump</u>
TOTAL VOLUME OF WATER REMOVED:	GAL. FLOW RATE 75 mL/min
WELL TYPE: FLUSH MOUNT (ABOVE GRADE)	COMMENTS
LOCKING CAP YES X	NO rosultate 56 to 70
PROTECTIVE POST/ABUTMENT YES	NO X Mg/L
NONPOTABLE LABEL YES X	_NO
ID PLATE YES X	NO
WELL INTEGRITY SATISFACTORY YES X	
WELL YIELD LOWMODERATE	HIGH
Purga time *	Turbidity Dis. O ₂ Temp ORP Notes (NTU) (mg/L) (°C) (mV)
	>1000 4.55 1555 -8 1340 empty frother
Snin 8.21 5.77 0.899	399 141 1111 48 1345"
	125 0.89 14.43 36 1351 empty flowth
Amir 8.23 5.18 0.626	66.9 1246 14.14 34 1359
26 m 8.23 S.33 O.793	41.8 000 14.24 58 1406
30mm 8.27 5.31 0.785	269 0.89 14.31 62 14/0
	4665 3568



AMEC PROJECT NUMBER)228-12-0021		NOMIDEK	U3-3E	
SITE NAME <u>Duke Energy-Spartanl</u>	ourg DATE	TIME OF SA	MPLE	<u>1050</u>)
FIELD PERSONNEL TLH		WEATHER C	CONDITIONS_	Sunr	14
TOTAL WELL DEPTH (TWD)	FT. (m	neasured / well tag / driller	rs log/ previous	report – ci r	cle one)
SCREENED INTERVAL			FOR DEPTH	TOC	
DEPTH TO GROUNDWATER (DO	3W) 7/68				
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =	=			
CASING DIAMETER 2	IN.				
ONE STANDING WELL VOLUME	$\exists = $ gal.				
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.01	_ •				
THREE STANDING WELL VOLU	$MES = \frac{2.6}{}$	FIVE STANDING W	ELL VOLUMI	ES =	<u> </u>
METHOD OF WELL EVACUATION	And the same of th	The male	E <u>Peri-Pum</u>	p	
TOTAL VOLUME OF WATER RE	MOVED:	ISO MAK FLO	W RATE	150	mL/min
WELL TYPE: FLUSH MOUNT	ABOVE GRADE		COMMEN	TS	
LOCKING CAP	YES X	NO			
PROTECTIVE POST/ABUTMENT	YES	NOX			
NONPOTABLE LABEL	YES X	NO			
ID PLATE	YES X	NO			
WELL INTEGRITY SATISFACTO	RY YES X	NO			
WELL YIELD LOW	MODERATE	HIGH /			
Elapsed Depth to Purge Time Groundwater (in minutes)	pH Cond. (μS/cm)	Turbidity Dis. O ₂ (NTU) (mg/L)	Temp (°C')	ORP (mV)	Notes
Initial Reading 2007	7.14 2877	NM 23.43	13,95	446	
1835 8,07	7/1 1862	NM 23.62		447	
1040 8107	7.14 1383	NM 23,39	13.48	442	
1045 8,07	7.09 1356	NM 23,35	14.01	448	
				,,,	
					, .





Α	MEC PROJECT	NUMBER	5228-12-00	21	MONITOR	RING WELL	NUMBER .	OS-10E	
S	ITE NAME <u>Duk</u>	ce Energy-Spartan	ourg DA	ATE 2	T 28-13	TME OF SA	MPLE	1145	
F	IELD PERSONN	VEL TLH			WW	EATHER C	ONDITION	s Sanny	460
								/	
Т	OTAL WELL D	EPTH (TWD)	13	FT. (n	neasured / wel	ll tag / driller	s log/ previo	us report – cir	cle one)
		ERVAL			MEASUR	ING POINT	FOR DEPTI	HTOC	
D	EPTH TO GRO	UNDWATER (DO	5W)	7/31					
L	ENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= 5,	69			
		TER2							
C	NE STANDING	WELL VOLUMI	== <u>\(\(\) /</u>	$93_{\text{gal.}}$					
(1	NOTE ½" = 0.01	02G/FT: ¾" = 0.0	23 G/FT: 1	"= 0.041G/F	T: 2 " = 0.163	G/FT: 4"=	0.653 G/FT	6" = 1.46 G	/FT)
Т	HREE STANDII	NG WELL VOLU	MES =	2,79	FIVE STA	ANDING WI	ELL VOLUN	$MES = \underline{\qquad \qquad }$	<u> 765 </u>
		ELL EVACUATIO							
Т	OTAL VOLUM	E OF WATER RE	MOVED: _	-	5(GAL. FLO	W RATE	150	mL/min
V	VELL TYPE:	FLUSH MOUNT	(ABOVE (TRADE			COMM	ENTS	
L	OCKING CAP		YI	ES <u>X</u>	NO				
P	ROTECTIVE PO	OST/ABUTMENT	YI	ES	NOX	·			
N	IONPOTABLE I	ABEL	YI	ES <u>X</u>	NO		·		
H	O PLATE		YI	ESX	NO				
V	VELL INTEGRIT	ΓΥ SATISFACTO	RY YI	ES X	NO				
V	VELL YIELD	LOW	MODERA'	TE	HIGH_		<u>·</u>		
	Elapsed	Depth to		. Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	рН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes
1126	Initial Reading	710	697	65X	NM	5.19	14,44	371	i ili dan zang garan kan da-i da da semi
1126	113)	7.91	6.89	524	NM	2.80	1442	<u> </u>	
		7.35	6,81	503	NM		14.43		
	1136	7 55		487	NM	2.48			
	1141	/_>>	6,78	78/	1010	<i>.</i> , / 10	19792	39//4	
	· ·							·	



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OS-5S
SITE NAME <u>Duke Energy-Spartanburg</u> DATE <u>2-18-13</u> TIME OF SAMPLE <u>140</u>
FIELD PERSONNEL TLH WEATHER CONDITIONS 340 Sunny
TOTAL WELL DEPTH (TWD) 13 FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW)
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{1}{2}$
CASING DIAMETER IN.
ONE STANDING WELL VOLUME = 6,72 gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
Three standing well volumes = $\frac{2 \cdot 31}{1}$ five standing well volumes = $\frac{3 \cdot 7}{1}$
METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE 125 mL/min
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YES NO X
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOWMODERATEHIGH
Elapsed Depth to Cond. Turbidity Dis. O2 Temp ORP Notes
Purge Time Groundwater pH (μS/cm) (NTU) (mg/L) (°C) (mV) Notes ²
Initial Reading 8.37 4.74 20308 NM 24.87 14.73 235
926 828 97120487 NM 16.15 1463 224 931 828 967 21,287 NM 16.46 14 69 221
931 8.28 9.67 21,287 NM 16.46 14 69 221
931 8.28 97120487 NM 16.15 1463 224 931 8.28 9.67 21,287 NM 16.46 14 69 221 936 8.28 9.64 21,358 NM 16.41 14.72 220



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER US-108
SITE NAME Duke Energy-Spartanburg DATE DATE TIME OF SAMPLE 17.30
FIELD PERSONNEL TLH WEATHER CONDITIONS 540 Sunny
TOTAL WELL DEPTH (TWD) _13FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL8-13MEASURING POINT FOR DEPTHTOC
DEPTH TO GROUNDWATER (DGW) 8,25
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{4.75}{}$
CASING DIAMETER 2 ÎN.
ONE STANDING WELL VOLUME = $\frac{Q_1}{2}$ gal. $\frac{Q_1}{2}$ 779
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{2.34}{3.9}$ FIVE STANDING WELL VOLUMES = $\frac{9.35}{3.9}$
METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED:
WELL TYPE: FLUSH MOUNT (ABOVE GRADE) COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YESNOX
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOWMODERATEHIGH
Elapsed Depth to Purge Time Cond. Turbidity Dis. O2 Temp ORP Notes
(in minutes)
13 Initial Reading 8.32 5.22 3129 NM 3.2 17.14 347
- 17 12 8730 S717 3240 NM 078 1631 3954
1728 8.32 5.13 3611 NM 0.61 17.03 413.1 1728 8.32 5.11 3460 NM 0.55 1697 420.9
1728 8.32 5.13 3611 NM 0.61 17.03 413.1 1728 8.32 5.11 3460 NM 0.55 16.97 420.9



AMEC PROJECT	NUMBER	<u> 6228-12-00</u> 2	21	MONITOH	UNG WELI	NUMBER .	OS-15S	
SITE NAME Duk	e Energy-Spartanl	burg DA	TE 2-18-1	.3 T	TME OF SA	MPLE	1650	
FIELD PERSONN	IEL TLH			WW	EATHER C	CONDITION	s Sunn	y 540
							•	
TOTAL WELL D	EPTH (TWD)	13	FT. (n	neasured / wel	l tag / drille	rs log/ previo	ous report – ci	rcle one)
SCREENED INTI					ING POINT	FOR DEPTI	HTOO	<u> </u>
DEPTH TO GRO	JNDWATER (DO	ζ(Wε	3,35	7 8 - 2				
LENGTH OF WA	TER COLUMN (LWC) = TV	VD – DGW	= <u> </u>	<u> </u>		-	
CASING DIAME			n /					
ONE STANDING								
(NOTE $\frac{1}{2}$ " = 0.01								
THREE STANDI				Same.				
METHOD OF WE								
TOTAL VOLUM			and the same of th	<u>()</u> (SAL. FLO			
WELL TYPE: 1	FLUSH MOUNT	The same of the sa	The state of the s	210		COMMI	ENTS	
LOCKING CAP				NO				
PROTECTIVE PO				NOX				
NONPOTABLE I	ABEL			NO				
ID PLATE	PSZ O A TEIOTE A COTO			NO				
WELL YIELD								
		WIODERA						
Elapsed Purge Time (in minutes)	Depth to Groundwater	Hq	Cond. (µS/cm)	Turbidity (NTU)	Dis, O ₂ (mg/L)	2 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	ORP (mV)	Notes
Initial Reading	861	6.47	1081	NM	3.52	2136	104	
1636	8.62	6,16	444	NM	0.29	16,34	149,9	
1641	262	6.17	441	NM	0	16.22	154	
1646	8162	6.17	439	NM	0	16.18	158_	
		,						

i631



A	MEC PROJECT	NUMBER	<u>6228-12-002</u>	<u>21</u> לכל	MONITOR	ang well	NOMBER	<u> </u>	
S	ITE NAME <u>Duk</u>	ke Energy-Spartan	burg DA	TE Vie	[[1605	
		TLH			W	EATHER C	ONDITION	S Synny	, 540
									•
Т	OTAL WELL D	EPTH (TWD)	13	FT. (n	neasured / we!	ll tag / driller	s log/ previo	ous report – cir	rcle one)
		ERVAL				NG POINT	FOR DEPT	H <u>TOC</u>	
D	EPTH TO GRO	UNDWATER (DO	GW)	8131					
L	ENGTH OF WA	TER COLUMN (LWC) = TV	VD – DGW	= 4:6	, 3		-	
		TER		_					
O	NE STANDING	WELL VOLUM	E = O) 6 gal.					
•		02G/FT: ¾" = 0.0		_				-	AND THE RESERVE OF THE PERSON NAMED IN COLUMN TO THE PERSON NAMED
T	HREE STANDII	NG WELL VOLU	MES =	2.28	FIVE STA	ANDING WI	ELL VOLUI	$MES = \underline{3}$	<u> </u>
\mathbf{N}	ETHOD OF WE	ELL EVACUATIO	ON: BA	ILER PUN	MP) OTHER:	TYP	E <u>Peri-Pu</u>	.mp	
Т	OTAL VOLUMI	E OF WATER RE	MOVED: _			GAL. FLO	W RATE		mL/min
V	/ELL TYPE:	FLUSH MOUNT	/ABOVE C	RÂDE	*		COMM	ENTS	
	OCKING CAP		Name and Address of the Owner, or other Designation of the Owner, where the Party of the Owner, where the Party of the Owner, where the Owner, which is the Owner, where the Owner, where the Owner, which is the Owner, where the Owner, which is the Owner, w	Marie of the Parties	NO				
P :	ROTECTIVE PO	OST/ABUTMENT	YE	ES	NOX	· · · · · · · · · · · · · · · · · · ·			
N	ONPOTABLE L	ABEL	YE	ES <u>X</u>	NO				
II) PLATE				NO		· 		
W	ELL INTEGRIT	ΓΥ SATISFACTO			NO		<u> </u>		
		LOW				a*	_		
	Elapsed Purge Time	Depth to	н	Cond.	Turbidity	Dis. O2	Temp	ORP	Notes
	(in minutes)	Groundwater		(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
1546	Initial Reading	2,43	628	1652	NM	2,10	16,11	202.3	
	1551	8,743	6,30	723	NM	0,27	15,99	113.8	
	1556	8143	6.33	751	NM	0	15.92	93.2	
	1601	8,43	6:34		NM	0	15.89		
								, -	



A	MEC PROJECT	NUMBER	<u>5228-12-00</u>	21	MONITO	RING WELI	NUMBER	OR-3S	
S	ITE NAME <u>Duk</u>	e Energy-Spartant	ourgDA	ATE 2-18-1	<u>і</u> 3Т	TIME OF SA	MPLE	1350	
		VEL TLH							9 420
									/
T	OTAL WELL D	EPTH (TWD)2	24.5	FT. (n	neasured/we	ll tag / drille	rs log/ previo	us report – ci	rcle one)
S	CREENED INTE	ERVAL1	19.5-24.5		MEASUR	ING POINT	FOR DEPTI	T <u>O</u>	3
D	EPTH TO GRO	UNDWATER (DO	3 W)	8.60)				
L	ENGTH OF WA	TER COLUMN (I	LWC) = TV	WD – DGW	= <u>15</u>	,9			
C	ASING DIAME	ΓER 2	IN.			•			
O	NE STANDING	WELL VOLUME	E = 2 ()	gal.					
(1)	NOTE ½" = 0.010	02G/FT: ¾" = 0.02	23 G/FT: 1	"= 0.041G/F					
T	HREE STANDI	NG WELL VOLU	MES =	7,83) FIVE STA	ANDING W	ELL VOLUN	/IES =/_	<u> </u>
\mathbf{N}	ETHOD OF WE	ELL EVACUATIO	N: BA	AILER (PUN	MP/OTHER:	TYP	E <u>Peri-Pu</u>	mp	
T	OTAL VOLUMI	E OF WATER RE	MOVED: _		. 5	GAL. FLO	W RATE	<u> </u>	mL/min
W	/ELL TYPE: 1	FLUSH MOUNT	ABOVE O	GRADE			COMMI	ENTS	
L	OCKING CAP		YI	ES X	NO				
P :	ROTECTIVE PO	OST/ABUTMENT	YE	ES	NOX	· ·			
N	ONPOTABLE L	ABEL	YE	ESX	NO	<u>.</u>			
П) PLATE		YE	ESX	NO				
W	ELL INTEGRIT	ΓΥ SATISFACTO	RY YE	ES <u>X</u>	NO	<u>.</u>			
N	ELL YIELD 1	LOW	MODERA	ΓE	HIGH				
	Elapsed -	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	рН		(NTU)	(mg/L)	(°C)		Notes
r Dar.		9.24	11 ('()	20400	NM	5,87	20 U)	1087	
1330	13 35	10,24		31876			2017	,	Lawer Flow
	1340			35040		2.94			LUZ: 1 10 VV
			12 00	25070	NA	2.46			
	1345	10,26	14101	332×0	7070	276	AC/C/	100.人	



AMEC PROJECT NUMBER					_		
SITE NAME Duke Energy-Spartan	burg DAT	E_ 24387 12	<u>。 3-2フ-</u> /ゼ	IME OF SA	MPLE	1434	<u> </u>
FIELD PERSONNEL TLH			W	EATHER C	ONDITION	s <u>5ur</u>	ing 530
							/
TOTAL WELL DEPTH (TWD)	25	FT. (m	easured / wel	l tag / driller	rs log/ previo	us report – ci	rcle one)
SCREENED INTERVAL					FOR DEPTI	HH	2
DEPTH TO GROUNDWATER (DO	∃W)	3.65		<u>~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ </u>			
LENGTH OF WATER COLUMN (LWC) = TWI	D – DGW =	_1b	35			
CASING DIAMETER 2	IN.	2 a n					
ONE STANDING WELL VOLUM	E= <u>_</u> \' <u>(</u>	<u>الح و</u>					
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.0							
THREE STANDING WELL VOLU			Ps.				-
METHOD OF WELL EVACUATION	ON: BAII	LER / PUM	OTHER:	TYP	E <u>Peri-Pu</u>	mp	
TOTAL VOLUME OF WATER RE	MOVED:	- Serverage	<u> </u>	AL. FLO	W RATE		mL/min
WELL TYPE: FLUSH MOUNT	/ABOVE GR	ADE			COMME	ENTS	
LOCKING CAP			NO				
PROTECTIVE POST/ABUTMENT			_NOX				
NONPOTABLE LABEL	YES	X	NO				
ID PLATE	YES	X	NO				
WELL INTEGRITY SATISFACTO			NO				
WELL YIELD LOW	MODERATE	}	HIGH _				
Elapsed Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	Notes
Purge Time Groundwater (in minutes)	рН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	INUCS
Initial Reading 9,75	8.3	1647	NM	1.08	19.12	300	•
1417 10/17	6.87 8	233	NNI	0.64	18.65	321	
1422 10.12		456	NM	0.55	18:59	318	
1427 10112			NM	0.51		308	
			,				
			·				
			-				
<u> </u>	1						



F	AMEC PROJECT	NUMBER	5228 - 12-00	21	MONITOI	RING WELL	NUMBER .	OR-10S	
S	SITE NAME Duk	e Energy-Spartanl	ourg DA	ATE 3.	2 <i>7-13</i> 1	TIME OF SA	MPLE	1515	
F	TELD PERSONN	VEL TLH & RC			V	EATHER C	NOITIONO	s Janne	, 52
		·			<u>.</u>			/	
7	TOTAL WELL D	EPTH (TWD)2	25	FT. (n	neasured / wei	ll tag / drilleı	rs log/ previo	ous report – ci	rcle one)
S	SCREENED INTE	ERVAL2	20-25		MEASUR	ING POINT	FOR DEPTI	H <u>TOC</u>	2
		UNDWATER (DO							
I	ENGTH OF WA	TER COLUMN (LWC) = TV	VD – DGW :	= 15.3)		_	
		ΤER2				•			
(ONE STANDING	WELL VOLUM	E= <u>'</u> λ'	5 gal.					
		$02G/FT: \frac{3}{4}" = 0.0$			T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	: 6" = 1.46 G	/FT)
,		NG WELL VOLU		155					
		ELL EVACUATIO			who have				•
7	TOTAL VOLUMI	E OF WATER RE	MOVED: _		<u>.5</u>	AL. FLO	W RATE		mL/min
		FLUSH MOUNT ,		The same of the sa				ENTS	
Ι	OCKING CAP		YI	ES X	NO				
I	PROTECTIVE PO	OST/ABUTMENT	YI	ES	NOX				
1	NONPOTABLE L	ABEL	YI	ESX	NO				
I	D PLATE		ΥH	ESX	NO				
1	WELL INTEGRIT	ΓΥ SATISFACTO	RY YI	ESX	NO				
V	WELL YIELD	LOW	MODERA'	ΓE	HIGH _				
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	рН	(µS/cm)	(NTU)	(mg/L)	(°C)	(m V)	Notes
1456	Initial Reading	10.31	ぶ. つ/)	24344	1/2/12	1,59	17.14	384	
v or € _n ,	1501	10.92		24,559		· · · · · · · · · · · · · · · · · · ·		359/1	Leve Flow
	1506	10.95	5.15	24 492	NMM	6.96	16.83	3475	-0NE, 110-0
	1511	10.96	5/1/	24,482	, '			347 J	
	1.311	10, 14	1/1/3	71.100		C' ! 10	رياها		
								-	
						,			



I	AMEC PROJECT	NUMBER	<u> 5228-12-00</u>	21	MONITOI	RING WELL	NUMBER	OR-3W		
9	SITE NAME <u>Duk</u>	ce Energy-Spartan	burgD/	ATE3 ^	<u> </u>	TME OF SA	MPLE	1255		
I	FIELD PERSONN	VEL TLH & RC			W	EATHER C	ONDITION	s Syn	ny 42°	
									/	
-	TOTAL WELL D	EPTH (TWD)	23	FT. (n	neasured / wei	ll tag / driller	s log/ previo	ous report – ci	rcle one)	
5	SCREENED INTI	ERVAL	18-23		MEASUR					
I	DEPTH TO GRO	UNDWATER (DO	GW)	7.85						
I	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= 141	5		_		
		TER				100				
		WELL VOLUM		$\frac{3}{\lambda}$ gal.						
		02G/FT: ¾" = 0.0			T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	: 6" = 1.46 G	/FT)	
	•	NG WELL VOLU							4	
1	METHOD OF WI	ELL EVACUATIO	ON: BA	AILER (PUN	P OTHER:	TYP:	E <u>Peri-Pu</u>	mp		
		E OF WATER RE		The state of the s	(ADM) 9				mL/min	
		FLUSH MOUNT	Name and Address of the Owner, where the Owner, which is the Owner, whi	A STANFARD OF THE PARTY NAMED IN			COMMI	ENTS		
J	LOCKING CAP		YI	ES X	NO					
I	PROTECTIVE PO	OST/ABUTMENT	` YI	ES	NOX					
1	NONPOTABLE I	_ABEL	YI	ESX	NO					
I	D PLATE		YI	ES <u>X</u>	NO					
7	WELL INTEGRI	TY SATISFACTO	RY YI	ES <u>X</u>	NO					
•	WELL YIELD	LOW	MODERA	ГЕ	HIGH _		_			
	Elapsed							- Ann		
	Purge Time	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
1222	(in minutes)		1							
1237	Initial Reading	1-1	4,92	19531	NM		20.08	•		
	1242	10.62	3.93	19406	NM	10.96		533		
	1247	10.64		19063	NM	9 87	14.32			
	1727	10.64	3,25	18977	NM	9.03	1935	555		
			ŀ						İ	



A	MEC PROJECT NUM	ивек <u>6228-</u>	-12-0021	MONITO	RING WELI	NUMBER	OR-5W	
S	ITE NAME <u>Duke Ene</u>	ergy-Spartanburg	DATE	3/13	TIME OF SA	MPLE	1150	
F	IELD PERSONNEL _	TLH			WEATHER C	CONDITIONS	S Sugar	4 450
							•	ĺ
Т	OTAL WELL DEPTH	I (TWD) <u>24</u>	FT	. (measured / we	ell tag / drille	rs log/ previo	us report – cir	cle one)
S	CREENED INTERVA	L 19-24	ļ	MEASUF	RING POINT	FOR DEPTH	I <u>TOC</u>	
Γ	EPTH TO GROUND	WATER (DGW)	8,	7.8				
L	ENGTH OF WATER	COLUMN (LWC	;) = TWD – DG	w = 15	22			
	ASING DIAMETER							
C	NE STANDING WEI	LL VOLUME = _	$\frac{2}{3}$	1.				
	NOTE ½" = 0.0102G/I				3 G/FT: 4"=	0.653 G/FT:	6" = 1.46 G/	FT)
Г	HREE STANDING W	ELL VOLUMES	s= <u></u>	\int_{-}^{\cdot} five st	ANDING W	ELL VOLUM	1ES =	15
N	METHOD OF WELL E	EVACUATION:	BAILER /(P	UMP) OTHER	: TYP	E <u>Peri-Pu</u>	тр	
Γ	OTAL VOLUME OF	WATER REMOV	VED:	5.	GAL. FLO	W RATE		mL/min
V	VELL TYPE: FLUS	H MOUNT (ABO	OVE GRADE				ENTS	
I	OCKING CAP		YES X	NO				
P	ROTECTIVE POST/A	ABUTMENT	YES	NO	X			
N	ONPOTABLE LABE	L	YES X	NO			··	
I	D PLATE		YES X	NO			····	
V	VELL INTEGRITY SA	ATISFACTORY	YES X	NO				
V	WELL YIELD LOW	MOD	DERATE	HIGH			•	
	Elapsed	Depth to	Cond.	Turbidity	Dis. O ₂	Temp	ORP	
		oundwater p	H (μS/cm			(°C)	(m V)	Notes
1130		78 6.	38 <i>3</i> 53	'a NM	5.8	17.64	398.1	
11.7¢			52 343	<u> </u>	7.21		372	
		72 61		INM	7.27	15.92	348	
		73 63	54 330		7.74	15 FB		
	11-13	1) 613	5 1 330	Z JVIVI	1111	73770	160	
					-			
					1			



	AMEC PROJECT	NUMBER	<u> 6228-12-00</u>	21				OR-10W				
		re Energy-Spartanl										
]	FIELD PERSONN	IEL TLH			V	VEATHER C	CONDITION	s Surm	450			
			2					/	,			
-	TOTAL WELL D	EPTH (TWD)	22.5	FT. (n	neasured / we	ll tag / drille	rs log/ previo	ous report – ci	rcle one)			
(SCREENED INTI	ERVAL	18.5-22.5		MEASUR	ING POINT	FOR DEPT	HTO(C			
]	DEPTH TO GRO	UNDWATER (DO	3W)	8,60	6	a						
]	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= <u>13</u>	<u> 184</u>		-				
(CASING DIAME	TER 2	IN.									
(ONE STANDING	WELL VOLUMI	E = _ _2 /_	<u>)</u> gal.								
		$02G/FT: \frac{3}{4}$ " = 0.0										
5	THREE STANDII	NG WELL VOLU	MES =	6.81	FIVE STA	ANDING W	ELL VOLUI	MES =	<u>, 35</u>			
I	METHOD OF WI	ELL EVACUATIO	ON: BA	AILER (PUI	MP) OTHER	: TYP	E <u>Peri-Pu</u>	mp				
	TOTAL VOLUMI	E OF WATER RE	MOVED:		(GAL. FLO	W RATE		mL/min			
,	WELL TYPE: FLUSH MOUNT ABOVE GRADE COMMENTS											
]	LOCKING CAP		YI	ES X	NO							
1	PROTECTIVE PO	OST/ABUTMENT	YI	ES	NOX	<u> </u>						
]	NONPOTABLE L	ABEL	YI	ES X	NO							
]	D PLATE		YI	ES X	NO		*********					
•	WELL INTEGRIT	TY SATISFACTO	RY YI	ES <u>X</u>	NO							
3	WELL YIELD	LOW	MODERA	TE	HIGH		_					
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP				
	Purge Time (in minutes)	Groundwater	рН	_(μS/cm)	(NTU)	[(compared to the compared to	(°C)	(mV)	Notes			
1001		8.66	5,65	10524	NM	0.74	1/ 14	320.3	ng paggarajag (Amatana garana manasa ay manasa m			
1036	1041	9.56	5,68	9275	NM	0.51	-		Lewer Flow			
	1046			8634	ļ	1		361.3	metre, Rock			
			516	834)	NM			364.7				
	1251	1:58	J163	(177)	7070	O (3/1	16.7C	J61'/				

					<u> </u>							
	-											
				<u> </u>								



AN OF COUNTY OF THE COOR 10 0001 MONITORING WELL NUMBER 1000
AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-13 ISOC
SITE NAME <u>Duke Energy-Spartanburg</u> DATE <u>3-27-13</u> TIME OF SAMPLE 1015
FIELD PERSONNEL TLH & RC WEATHER CONDITIONS 40° Sunny
·
TOTAL WELL DEPTH (TWD) 21.5 FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 6.5-21.5 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 6/13
LENGTH OF WATER COLUMN (LWC) = TWD $-$ DGW = $15 \cdot 37$
CASING DIAMETER 4 IN.
ONE STANDING WELL VOLUME = C G , C gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = 30.12 FIVE STANDING WELL VOLUMES = 30.2
METHOD OF WELL EVACUATION: BAILER / PUMP/ OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE mL/min
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATEmL/min WELL TYPE: FLUSH MOUNT) ABOVE GRADE COMMENTS
and the state of t
WELL TYPE: FLUSH MOUNT, ABOVE GRADE COMMENTS
WELL TYPE: FLUSH MOUNT, ABOVE GRADE COMMENTS LOCKING CAP YES X NO
WELL TYPE: FLUSH MOUNT, ABOVE GRADE LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X
WELL TYPE: FLUSH MOUNT, ABOVE GRADE COMMENTS LOCKING CAP YES X NO NO PROTECTIVE POST/ABUTMENT YES NO NO NONPOTABLE LABEL YES X NO NO
WELL TYPE: FLUSH MOUNT, ABOVE GRADE COMMENTS LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO ID PLATE YES X NO
WELL TYPE: FLUSH MOUNT, ABOVE GRADE COMMENTS LOCKING CAP YES X NO NO PROTECTIVE POST/ABUTMENT YES NO X NO NONPOTABLE LABEL YES X NO NO ID PLATE YES X NO NO WELL INTEGRITY SATISFACTORY YES X NO NO WELL YIELD LOW MODERATE HIGH HIGH
WELL TYPE: FLUSH MOUNT, ABOVE GRADE LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO ID PLATE YES X NO WELL INTEGRITY SATISFACTORY YES X NO WELL YIELD LOW MODERATE HIGH Elapsed Depth to pH Cond Turbidity Dis. O2 Temp ORP Purge Time Crowderdor pH (OS/em) (NTID) (mg/l) (mg/l) (mg/l) POS (MY) Notes
WELL TYPE: FLUSH MOUNT ABOVE GRADE LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO DPLATE YES X NO WELL INTEGRITY SATISFACTORY WELL YELD LOW MODERATE HIGH Elapsed Purge Time (in minutes) PH Cond. Turbidity Dis. O2 Temp ORP (in minutes) NOTE Temp ORP Notes (in minutes)
WELL TYPE: FLUSH MOUNT ABOVE GRADE LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO WELL INTEGRITY SATISFACTORY YES X NO WELL YIELD LOW MODERATE HIGH Elapsed Purge Time (in minutes) Flush MOUNT ABOVE GRADE COMMENTS NO X NO X NO D WELL YES X NO WELL YIELD LOW MODERATE HIGH Flush Groundwater (µS/cm) (NTU) (mg/L) (°C) (mV) Initial Reading 6, 13 6, 79 73 35 MM (55.) 16, () 126.1
WELL TYPE: FLUSH MOUNT ABOVE GRADE LOCKING CAP YES X NO PROTECTIVE POST/ABUTMENT YES NO X NONPOTABLE LABEL YES X NO DPLATE YES X NO WELL INTEGRITY SATISFACTORY WELL YELD LOW MODERATE HIGH Elapsed Purge Time (in minutes) PH Cond. Turbidity Dis. O2 Temp ORP (in minutes) NOTE Temp ORP Notes (in minutes)

958

Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis, O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
Initial Reading	6.13	6.79	73.35	NM	\$5.2	16,10	1261	
1003	6.20	6.73	7.35X	NM	1.19	16:20	139.6	
1008	6:20	6.76	7350	NM	1.11	1621	145,8	
1013	6.20	8.76	2347	NM	1.09	16.21	150:1	
	•							
					•••			



AMEC PROJECT	NUMBER	6228-12-00	21	MONITO	RING WEL	L NUMBER	MW-13S	~/ /MW-135~
SITE NAME <u>Duk</u>	ce Energy-Spartan	burg DA	ATE <u> 3-2</u> 2	1-13/228-1	JIME OF SA	AMPLE	1740	400 9
FIELD PERSONN	VEL <u>TLH & RC</u>	J		v) VEATHER (CONDITION	vs <u>34°</u>	Sunny
								,
TOTAL WELL D	EPTH (TWD)	15.02	FT. (1	neasured / we	ll tag / drille	rs log/ previ	ous report – c	ircle one)
SCREENED INTI				MEASUR	ING POINT	FOR DEPT	HTO	C
DEPTH TO GRO								
LENGTH OF WA	TER COLUMN ((LWC) = TV	WD – DGW	= 7,1	7			
CASING DIAME	TER 2	_IN.	. ~					
ONE STANDING	WELL VOLUM	E =	gal.					
(NOTE $\frac{1}{2}$ " = 0.010			-70 - P					
THREE STANDII								
METHOD OF WE								
TOTAL VOLUMI	E OF WATER RE	EMOVED:		.5(GAL, FLO	W RATE		mL/min
WELL TYPE: 1	FLUSH MOUNT	/ ABOVE (GRADE			COMM		E .
LOCKING CAP		YI	ES <u>X</u>	NO		<i>Q</i> rd	sol ge	gercher 15
PROTECTIVE PO	DST/ABUTMENT	r YI	ES	NOX	<u> </u>	_c/we	to pr	sluct to well
NONPOTABLE L	ABEL	YH	ES X	NO				
ID PLATE		YF	ES <u>X</u>	NO				
WELL INTEGRIT	ΓΥ SATISFACTO	RY YE	ESX	NO				
WELL YIELD I	LOW	MODERA	ΓE	HIGH		 -		
Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)		Temp	ORP (mV)	Notes
Initial Reading					jandalisena e.			
mittal (Cading								
					<u></u>			
						-		
					<u> </u>			



AMEC PROJECT	NUMBER	<u>6228-12-00</u>	121	MONITOI	RING WELI	_ NUMBER	OS-10E	
SITE NAME <u>Du</u>	ke Energy-Spartan	burg Da	ATE 4-9	<u>-13</u> T	TIME OF SA	MPLE	N/4	
FIELD PERSON	NEL TLH			V	EATHER C	CONDITION	s Sune	14 75°
								/
TOTAL WELL D	DEPTH (TWD)	13	FT. (n	neasured / we	ll tag / drille	rs log/ previo	us report – ci	ircle one)
	ERVAL				ING POINT	FOR DEPT	HTO	C
	UNDWATER (DO							
LENGTH OF WA	ATER COLUMN (LWC) = TV	WD DGW	=51 ^L	19		-	
CASING DIAME	TER2	IN.						
ONE STANDING	WELL VOLUM	E =	gal.					
•	102G/FT: ¾" = 0.0							· · ·
THREE STANDI	NG WELL VOLU	MES =	2.1	FIVE STA	ANDING W	ELL VOLUN	MES =	1.5
	ELL EVACUATION			_				
TOTAL VOLUM	E OF WATER RE	MOVED:		<u>r5</u> 0	GAL. FLO	W RATE		mL/min
WELL TYPE:	FLUSH MOUNT	ABOVE	GRADE			COMMI	ENTS	
LOCKING CAP		YI	ES X	NO				
PROTECTIVE P	OST/ABUTMENT	YI	ES	NOX	- 			
NONPOTABLE I	LABEL	YI	ES <u>X</u>	NO				
ID PLATE		YI	ES <u>X</u>	NO				
WELL INTEGRI	TY SATISFACTO	RY YI	ES <u>X</u>	NO		 		
WELL YIELD	LOW	MODERA'	TE	HIGH_		-		
Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1234 Initial Reading		7,15	1.64	19, 3	7,91	24,22	302	a, with an exercise them are the continuous per ex-
1237	7.62	6.88				24,53		
1240	7.62	6,84	1000	16.2	7,57	24,77	189	
1243	7,62		0.615		7.41	24.76	182	
121	7,62	w / /		13.7	~ 1~169	41.70	104	
		•						
					<u> </u>			



Α	MEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	L NUMBER	OS-5E	
S	ITE NAME <u>Dul</u>	ke Energy-Spartan	burg DA	ATE <u>4-</u>	-13 7	TIME OF SA	MPLE	N	14
F	TELD PERSON	NEL TLH			ν	EATHER C	CONDITION	s <u> </u>	5 Sunny
Т	OTAL WELL D	EPTH (TWD)	13	FT. (n	neasured / we	ll tag / drille	rs log/ previo	ous renort – c	ircle one)
		ERVAL		·		_		=	·
		UNDWATER (DO			·	nvo ronvi	TORDELL	.1 <u></u>	
		TER COLUMN (3			
		TER 2		JU DU		·J		-	
		WELL VOLUMI	•	84 gal.					
		$02G/FT: \frac{3}{4}" = 0.0$			T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	: 6" = 1.46 C	G/FT)
		NG WELL VOLU							
		ELL EVACUATIO							
Т	OTAL VOLUM	E OF WATER RE	MOVED: _		<u>. 5</u> (GAL. FLO	W RATE		mL/min
v	VELL TYPE:	FLUSH MOUNT	ABOVE O	GRADE			COMMI	ENTS	
L	OCKING CAP		YE	ES X	NO				
P	ROTECTIVE PO	OST/ABUTMENT	YE	ES	NOX	· ·			
N	IONPOTABLE I	ABEL	YE	ES X	NO				······································
IJ	D PLATE		YE	ES <u>X</u>	NO				· -···
ν	VELL INTEGRI	FY SATISFACTO	RY YE	ES <u>X</u>	NO		<u></u>		
ν	VELL YIELD	LOW	MODERA	re	HIGH				
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	pН	(µS/cm)	(NTU)	(mg/L)	(°C.)	(mV)	Notes
1220	Initial Reading	8.42	7,17	4,03	13	9,36	20,50	345	
1200	1223	8,42	7,09	\		1 (2 1	20,73		
	1226	8,42			14.6		20,74		
	1229	8.42	7.04	2.05	13.8		20.75	741	
	1 2 2 1	0.10	1101	2122	1310	2121	001/5	210	
								· · · · · · · · · · · · · · · · · · ·	
									-
						<u> </u>			



A	AMEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	LNUMBER	OS-5S	
S	ITE NAME <u>Dul</u>	ce Energy-Spartan	burg DA	ATE_4-9	-13	ΓIME OF SA	MPLE	N	<u>/A</u>
F	TELD PERSONN	NEL TLH	····		ν	VEATHER C	CONDITION	s 75°	Sunay
Т	OTAL WELL D	EPTH (TWD)	13	FT. (r	neasured / we	ll tag / drille	rs log/ previo	ous report – c	circle one)
		ERVAL				ING POINT	FOR DEPT	HTO	C
Ι	DEPTH TO GRO	UNDWATER (DO	GW)	8,50					
I	ENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= 4,	<u></u>		-	
C	CASING DIAME	TER	IN.						
C	NE STANDING	WELL VOLUM	E=	74 gal.					
		02G/FT: ¾" = 0.0							
Т	HREE STANDII	NG WELL VOLU	MES =	2,22	FIVE STA	ANDING W	ELL VOLUN	$AES = \underline{3}$	<u>', 7 </u>
		ELL EVACUATION							
Т	OTAL VOLUM	E OF WATER RE	MOVED:		<u> </u>	GAL. FLO	W RATE		mL/min
V	VELL TYPE:	FLUSH MOUNT	/ ABOVE O	RADE			COMMI	ENTS	
I	OCKING CAP		YI	ES X	NO	.			9/L Klozur Pe
P	ROTECTIVE PO	OST/ABUTMENT	YE	ES	NOX				
N	IONPOTABLE I	ABEL	YE	ES <u>X</u>	NO				
П	D PLATE		YE	ESX	NO				8. A.
V	VELL INTEGRIT	TY SATISFACTO	RY YE	ES <u>X</u>	NO	<u></u>	 		
V	VELL YIELD 1	LOW	MODERA?	ГЕ	HIGH _		_		
	Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1206	Initial Reading	8,40	5,89	12,5	13,4	5.2	23,83	426	
1	1209	8 90		2315	i	5,36	23.01		
	1212	8.90	7,84	24.9	170)		23,13	 	
	1215			25,0			13.15	338	
	1017	0 10	2100	λυ, Ο				000	
									
						- · · · · · · · · · · · · · · · · · · ·		· · · · · ·	
				!					
	,							·	



A	AMEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	NUMBER	OS-10S	
S	SITE NAME <u>Dul</u>	ce Energy-Spartan	burg D	ATE 4- 🗍	<u>-13</u>	TIME OF SA	MPLE /	I/A	
F	TELD PERSON	NEL <u>TLH</u>			ν	EATHER (CONDITION	s 740	Sunny
									/
Т	OTAL WELL D	EPTH (TWD)	13	FT. (n	neasured / we	ll tag / drille	rs log/ previo	ous report – c	ircle one)
S	CREENED INT	ERVAL	8-13		MEASUR	ING POINT	FOR DEPT	HTO	C
Ι	EPTH TO GRO	UNDWATER (DO	GW)	8.49					
L	ENGTH OF WA	TER COLUMN (LWC) = T	WD – DGW	= 41.	51		_	
		TER2							
C	ONE STANDING	WELL VOLUM	E=_ <u>0</u> 1	74 gal.					
(NOTE ½" = 0.01	$02G/FT: \frac{3}{4}" = 0.0$	23 G/FT: 1	"= 0.041G/F	T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	: 6" = 1.46 C	G/FT)
T	THREE STANDI	NG WELL VOLU	MES =	2,22	FIVE STA	ANDING W	ELL VOLUM	$MES = \underline{3}$	7
N	METHOD OF WI	ELL EVACUATIO	ON: BA	AILER/(UI	MP OTHER:	TYP	E <u>Peri-Pu</u>	mp	
Γ	OTAL VOLUM	E OF WATER RE	MOVED:		<u>,5 </u>	GAL. FLO	W RATE		mL/min
V	VELL TYPE:	FLUSH MOUNT	/ABOVE	GRADE			COMMI		3 431
I	OCKING CAP		YI	ES <u>X</u>	NO			0 9/	L Klozur Perzu
P	ROTECTIVE PO	OST/ABUTMENT	YI	ES	NOX	·			
N	IONPOTABLE I	ABEL	YI	ES <u>X</u>	NO				
I	D PLATE		YI	ES X	NO				
V	VELL INTEGRIT	TY SATISFACTO	RY YI	ES <u>X</u>	NO				
V	VELL YIELD	LOW	MODERA'	TE	HIGH _				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	Нq	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1147	Initial Reading	8,72	4.93	14.5	11,9	4.66	21.64	472	
•	1150	8,73	5,08	8.97	13.8	5,48	21,65		
	1153	8.73	5/12	6,05	14.7		21,66	457	
	1156	8173	5,	5,09	13.9	4,69	21.68	453	
			-	-					



A	AMEC PROJECT	NUMBER	6228-12-002	21	MONITO	RING WELI	NUMBER	OR-5S		
S	SITE NAME <u>Dul</u>	ke Energy-Spartan	burg DA	TE 4- 9	-13	TIME OF SA	MPLE	NA		
F	TELD PERSON	NEL TLH			V	EATHER C	CONDITION	s <i>Sunn</i>	y 70°	
									/	
7	TOTAL WELL D	EPTH (TWD)	25	FT. (1	neasured / we	ll tag / drille	rs log/ previo	us report – ci i	rcle one)	
S	CREENED INT	ERVAL	20-25		MEASUR	ING POINT	FOR DEPT	H <u>TOC</u>		
		UNDWATER (DO		~ .						
I	ENGTH OF WA	TER COLUMN (LWC) = TW	D – DGW	=16	,19		=		
C	CASING DIAME	TER	IN.							
C	ONE STANDING	WELL VOLUM	E= <u>],[</u>	<u>5</u> gal.						
		02G/FT: ¾" = 0.0								
Т	THREE STANDI	NG WELL VOLU	MES =	1,4	\sum FIVE STA	ANDING W	ELL VOLUN	ИES =	1,25	
		ELL EVACUATIO		_				=		
7	TOTAL VOLUM	E OF WATER RE	EMOVED: _		<u>5</u> σ	GAL. FLO	W RATE		mL/min	
7	WELL TYPE:	FLUSH MOUNT	/ ABOVE G	RADE			COMMI	ENTS	/1	<u> </u>
Ι	OCKING CAP		YE	SX	NO			3,5 4	St Klozur 1	2134/Tate
P	PROTECTIVE PO	OST/ABUTMENT	YE	S	NOX	· -				
N	NONPOTABLE I	LABEL	YE	S <u>X</u>	NO					
I	D PLATE		YE	S <u>X</u>	NO					
V	WELL INTEGRI	ΓΥ SATISFACTO	RY YE	SX	NO		<u></u>			
V	WELL YIELD	LOW	MODERAT	E	HIGH .					
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP		
	Purge Time (in minutes)	Groundwater	Щq	(µS/cm)		(mg/L)	(°C)	(mV)	Notes	47 4 10-4 10-4 10-4
1118	Initial Reading	4.18	6.53	5,24	2315	1u.7	72.U/	361		
	1121	4.18	6,45		15.4			345		-
	1124	9/18		7.20	1316	7/07	23,64	339		-
			6,44		1		23,69 33,71	335		-
	1127	9,18	6197	2,08	1413	2/3"1	33:71	333		_
									·	_
							<u> </u>			_
									·····	
										-
										-
			·							-
	!									



AMEC PROJECT NUMBER	6228-12-0021	MONITORING W	ELL NUMBER	OR-3S	
SITE NAME <u>Duke Energy-Spartar</u>	ıburg DATE 2-	-13 TIME OF	F SAMPLE	NA	
FIELD PERSONNELTLH		WEATHE	ER CONDITION	s Sunny	700
TOTAL WELL DEPTH (TWD)	24.5 FT. (1	measured / well tag / dr	rillers log/ previo	us report – cir o	cle one)
SCREENED INTERVAL	•	_		-	•
DEPTH TO GROUNDWATER (D			avi rok ber i	100	
LENGTH OF WATER COLUMN)		
CASING DIAMETER 2		157 7 6	<u> </u>	•	
ONE STANDING WELL VOLUM					
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.0		FT: 2" = 0.163 G/FT:	4" == 0.653 G/ET	· 6" = 1.46 G/F	⊋'T')
THREE STANDING WELL VOLU					
METHOD OF WELL EVACUATI		A CONTRACTOR OF THE PARTY OF TH	TYPE <u>Peri-Pu</u>	, , ,	-
TOTAL VOLUME OF WATER RI	<u></u>			=	mI /min
WELL TYPE: FLUSH MOUNT		UAL. I	COMMI		1111_//111111
		NO			Kbzur Persul
LOCKING CAP		NO		1.5 9/1	KOZUI ICISUII
PROTECTIVE POST/ABUTMEN		NO X			_
NONPOTABLE LABEL		NO	 		
ID PLATE		NO			
WELL INTEGRITY SATISFACTO	·	NO			
WELL YIELD LOW	_MODERATE	HIGH		mat national to ear tast nation of the	
Elapsed Depth to Purge Time (in minutes) Groundwater	pH Cond. (μS/cm)	Turbidity Dis. (NTU) (mg/I	de de la companya del companya de la companya del companya de la c	ORP (mV)	Notes
1103 Initial Reading 937	5.48 13.8	14.3 6.0	6 23,16	472	
	6,27 11,4		8 23,19		-
	7.84 10.4			424	
1109 939		1116 110	/ <u> </u>		
1112 940	91.14 9.87	14,5 7,3	6 13131	378	
	ļ				
	<u> </u>				



		NUMBER					L NUMBER		
		ke Energy-Spartan		•					, -
F	IELD PERSONI	NEL TLH			V	VEATHER (CONDITION	is <u>65</u>	Sunny
T S D L C O O T M T W L	OTAL WELL D CREENED INTO EPTH TO GRO ENGTH OF WA ASING DIAME ONE STANDING NOTE ½" = 0.01 HREE STANDING IETHOD OF WI OTAL VOLUM VELL TYPE: OCKING CAP	EPTH (TWD) ERVAL UNDWATER (DO ATER COLUMN (TER2 WELL VOLUMN 02G/FT: ¾" = 0.0 NG WELL VOLUMN ELL EVACUATION E OF WATER RE FLUSH MOUNT	24 19-24 GW)	FT. (r 198 VD – DGW 2 – 0.041G/F 2 – 3 8 SERADE SSX	measured / weMEASUR =	Il tag / drille ING POINT GAPT: 4"= ANDING W TYP GAL. FLO	rs log/ previo	ous report — ci H TO : 6" = 1.46 C MES = /2 imp ENTS	ircle one) C G/FT)
								<u>.</u>	
	O PLATE	•			NO				
		ΓΥ SATISFACTO							
		LOW							
	Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
PLS	Initial Reading	9.5	8.85	23,2	17,2	7,49	21.73	228	
	1031	9.54	6.60			7.13	22.02		
	1034	9,55		16.5		6,80	22.19	350	
	1037	9,55	5,92		16.9			387	
								<u></u>	
									
				.					



		NUMBER								
S	TTE NAME <u>Dul</u>	ke Energy-Spartan	burg D	АТЕ <u>4- ¶</u>	-13	ΓIME OF SΑ	MPLE	N/A		
F	TELD PERSON	VEL TLH			ν	VEATHER (CONDITION	s <u>65</u>	Synny	
T	OTAL WELL D	EPTH (TWD)	22.5	FT. (r	neasured / we	ll tag / drille	rs log/ previo	us report – ci	rcle one)	
S	CREENED INT	ERVAL	18.5-22.5		MEASUR	ING POINT	FOR DEPT	HTO	C	
Γ	EPTH TO GRO	UNDWATER (DO	GW)	8,89						
L	ENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= 13.2	1		_		
		TER2								
C	NE STANDING	WELL VOLUM	$\mathbf{E} = 2$	<u>23 gal.</u>						
(1	NOTE ½" = 0.01	02G/FT: ¾" = 0.0	23 G/FT: 1	"= 0.041G/F	$^{\circ}$ T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	: 6" = 1.46 G	G/FT)	
Т	HREE STANDI	NG WELL VOLU	MES =	6.69	FIVE STA	ANDING W	ELL VOLUN	AES = 1	115	
N	AETHOD OF WI	ELL EVACUATIO	ON: BA	AILER PUI	MP) OTHER	TYP	E <u>Peri-Pu</u>	mp		
Т	OTAL VOLUM	E OF WATER RE	MOVED:	Į.	5	GAL. FLO	W RATE		mL/min	
ν	TOTAL VOLUME OF WATER REMOVED:									
L	OCKING CAP		YI	ESX	NO		_2	5 9/	L Kbzur Persu	
P	ROTECTIVE PO	OST/ABUTMENT								
N	IONPOTABLE L	LABEL	YE	ES X	NO		, , , , , , , , , , , , , , , , , , , 			
n	D PLATE		YH	ES X	NO					
ν	VELL INTEGRIT	ΓΥ SATISFACTO	RY YE	ES X	NO		,			
V	VELL YIELD	LOW	MODERA'	re <i>u</i>	HIGH_					
	Elapsed			623	774	DV 0				
	Purge Time	Depth to Groundwater	рН	Cond, (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)		ORP (mV)	Notes	
1 m i en	(in minutes)	to .er	: 10	8 00						
1010	Initial Reading	171.92	6.67			8,26		215		
	1013	9.18	11,45	36,2	20,0			110		
	1016	9.18		36,5	1	7,53		112		
	1019	9.18	1408	3615	19,5	7,47	20.95	115		
			•	_						
				<u></u>						
	: : : : : : : : : : : : : : : : : : : :									
	j l				i	l	!		1	



Α	MEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	LNUMBER	OR-10S	
S	ITE NAME <u>Du</u> l	ce Energy-Spartan	burg DA	ATE 4 -9 -	13	TIME OF SA	MPLE /	//A	
F	IELD PERSONN	VEL TLH			WEATHE	R CONDITI	ons <u>7</u>	50 Jui	nny
т	YOTAI WELL D	EPTH (TWD)	าร	ET (**	noonwed / we	11 too / deille	ra lag/ provi	NIG report 6	irolo ono)
				•		_		_	·
		ERVAL UNDWATER (DO			MEASUR	ING POINT	FOR DEFT	Н ТО	<u>C</u>
					11.	17			
		TER COLUMN (VD-DGW	=	1 shows		_	
		TER <u>2</u> WELL VOLUMI		10 .					
					T ON 0.160		0.650.535		
		02G/FT: ¾" = 0.0 NG WELL VOLU							
					angle				<u> </u>
		ELL EVACUATION			MP/OTHER		E <u>Peri-Pu</u>		
		E OF WATER RE		The second secon	<u>" </u>	jal, flo			mL/min
		FLUSH MOUNT					COMM.	ENTS	. /1 1/1 0
	OCKING CAP				NO			1.3	JL Klozur Per
		OST/ABUTMENT		ES			-		
	IONPOTABLE I	ABEL			NO				
	D PLATE			SX					
		CY SATISFACTO		ES X					
V	VELL YIELD	LOW	MODERAT	TE	HIGH				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µ\$/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C')	ORP (mV)	Notes
1132	Initial Reading	1015	646	2.99	11.5	7,59	23,4	340	
	1135	1018	5,03	26.0	11,3	6,27	23,48	456	
	1138			270	11.7	5,64	27,61	477	
	1/41	1018	4.57	27.3	12,7	5.31	27,67	479	
								<u> </u>	
						1		<u> </u>	
				_			•		
		<u> </u>							



Α	MEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	LNUMBER	OR-3W	,
		ce Energy-Spartan							4
F	IELD PERSONN	NEL TLH			WEATHE	R CONDITI	ONS6	80 Sun	и у
									1
T	OTAL WELL D	EPTH (TWD)	23	FT. (n	neasured / we	ll tag / drille	rs log/ previo	us report – c	ircle one)
S	CREENED INTI	ERVAL	18-23		MEASUR	ING POINT	FOR DEPT	HTO	C
		UNDWATER (DO							
L	ENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= /3	87		-	
		TER <u>2</u>	-						
C	NE STANDING	WELL VOLUM	E = <u> </u>	7 ga1.					
(1	NOTE ½" = 0.01	02G/FT: ¾" = 0.0	23 G/FT: 1	"= 0.041G/F	T: 2" = 0.163	G/FT: 4"=	0.653 G/FT	: 6" = 1.46 (3/FT)
Т	HREE STANDI	NG WELL VOLU	MES =	6,8	FIVE ST.	ANDING W	ELL VOLUN	MES = <u>//</u>	<u> 135 </u>
N	IETHOD OF WI	ELL EVACUATIO	ON: BA	AILER / ŒUN	MP) OTHER	: TYP	E <u>Peri-Pu</u>	тр	
Т	OTAL VOLUM	E OF WATER RE	MOVED: _		<u>,5 </u>	GAL. FLO	W RATE		mL/min
ν	VELL TYPE:	FLUSH MOUNT	/ ABOVE (GRADE			COMMI		
L	OCKING CAP		YF	ES X	NO		14	15 g/	L Klozur leisu
P	ROTECTIVE PO	DST/ABUTMENT	YI	ES	NOX	<u> </u>			
N	ONPOTABLE I	ABEL	YF	ES X	NO				
II	D PLATE		YI	ES X	NO				
V	VELL INTEGRIT	ΓΥ SATISFACTO	RY YE	ES X	NO				
V	VELL YIELD	LOW	MODERA	ГЕ <u>/</u>	HIGH				
	Elapsed	Depth to		Cond.	Turbidity	Dis. O2	Тетр	ORP	
	Purge Time (in minutes)	Groundwater	рН	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes
1043	Initial Reading	9,63	/ EC	1415	15,3	3,35	7762	വവ	
			6.55					384	
	1046	965	6.47	15.2	16:1	3.28	22,03	394	
	1049	9.65							
	1052	9,65	9.83	13,6	14/4	0166	22,12	48/	
		**							
		-							
				l i	1	I	ı .		1



	AMEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	NUMBER	MW-13 I	SOC
	SITE NAME <u>Dul</u>	ke Energy-Spartan	burg DA	ATE 4- 9	-13	ΓIME OF SA	MPLE	N/A	
	FIELD PERSONN	NEL TLH			WEATHE	R CONDITI	ONS 6	50 Par	tly Cloudy
	TOTAL WELL D SCREENED INTE DEPTH TO GRO LENGTH OF WA CASING DIAME ONE STANDING (NOTE ½" = 0.01 THREE STANDING	ERVAL UNDWATER (DO TER COLUMN (TER 4 WELL VOLUM) 02G/FT: ¾" = 0.0	6.5-21.5 GW) LWC) = TV _IN. E = 23 G/FT: 1 IMES =	6,3 WD – DGW 86 gal. "= 0.041G/F 29,58	MEASUR 9 15 T: 2" = 0.163 FIVE STA	ING POINT G G/FT: 4"=	FOR DEPT	H TO : 6" = 1.46 G MES =	G/FT) 49, }
	METHOD OF WE				· · ·				
	TOTAL VOLUM				<u></u>	GAL. FLO			
	WELL TYPE:	FLUSH MOUNT					COMMI	ENTS	1, ,,,
	LOCKING CAP				NO			13 9/	L Klozur Persu
	PROTECTIVE PO								
	NONPOTABLE L	LABEL			NO				
	ID PLATE WELL INTEGRIT				NO		 .		
	WELL INTEGRII WELL YIELD 1					3			
			MODERA						
	Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
944	Initial Reading	6.42	6.64	8.31	44,8	0,59	19.32	251	
	947	6.42	6.64	8,28	23,9	0,35	14,70	236	
	950	6.42	6.64	8,28	13,7	0:18	19:65	230	
	453	6,42	6.64		819	0	14.62	225	
							 		
									<u> </u>
	-								



AMEC PI	ROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	NUMBER	OS-10E	
SITE NA	ME <u>Duk</u>	e Energy-Spartan	burgDA	ATE 4-23	-13	ΓIME OF SA	MPLE	NA	··· •
FIELD PI	ERSONN	EL <u>TLH</u>			ν	VEATHER (CONDITION	s <u> 65 </u>	'Sunny
									/
TOTAL V	VELL DI	EPTH (TWD)	13	FT. (n	neasured / we	ll tag / drille	rs log/ previo	us report – ci	rcle one)
		RVAL				ING POINT	FOR DEPT	HTOO	
DEPTH T	O GROU	JNDWATER (DO	GW)	7,6	59	·····		•	
LENGTH	OF WA	TER COLUMN (LWC) = TV	WD – DGW	=	5,31			
CASING	DIAMET	TER2	_IN.						
ONE STA	NDING	WELL VOLUM	E= <u>01</u>	$82_{\rm gal.}$					
(NOTE ½	e" = 0.010	02G/FT: ¾" = 0.0	23 G/FT: 1	"= 0.041G/F					
THREE S	TANDIN	NG WELL VOLU	MES =	2,6	FIVE STA	ANDING W	ELL VOLUN	$AES = \underline{\mathcal{H}}$	-35
METHOI	OF WE	LL EVACUATIO	ON: BA	AILER (PUN	AP/OTHER	: TYP	E <u>Peri-Pu</u>	mp	
TOTAL V	/OLUMF	E OF WATER RE	MOVED:		<u> </u>	GAL. FLO	W RATE		mL/min
WELL T	YPE: I	LUSH MOUNT	ABOVE (GRADE			COMMI	ENTS	
LOCKIN	G CAP	•	Al	S X	NO				
PROTEC	TIVE PO	ST/ABUTMENT	YI	ES	NOX	<u> </u>			
NONPOT	`ABLE L	ABEL	YI	ESX	NO			. .	
ID PLAT	Ε		YI	ESX	NO				
WELL IN	TEGRIT	Y SATISFACTO	RY YI	ESX	NO				
WELL Y	ELD I	LOW	MODERA	ГЕ	HIGH	_/_			
Purge	psed Time nutes)	Depth to Groundwater	рĦ	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1252 Initial	Reading	7182	6.93	4,07	111	11.46	18:33	179	
125	55	7,82	6,97	2.76	199	2.08	18,39	163	
	58	7,82	6.95	2,76 2,35	120	1,29	18,34	155	
1 '	01	7,82	6.95	2,04	128	6112	18,31	142	
		,		1					
								·	



1	AMEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITOI	RING WELL	NUMBER .	OS-5E		
5	SITE NAME <u>Duk</u>	ce Energy-Spartan	burg DA	ATE <u>4-23</u>	<u>-13</u> 7	TIME OF SA	MPLE	N/A		
]	FIELD PERSONN	NEL TLH		.	WW	ÆATHER C	ONDITION	s <u>650</u>	Sunny	Wir
-	TOTAL WELL D	EPTH (TWD)	13	FT. (r	neasured / we	ll tag / driller	s log/ previo	us report – ci	rcle one)	
		ERVAL				ING POINT	FOR DEPTI	TOC	3	
1	DEPTH TO GRO	UNDWATER (DO	GW)	8,06		21				
]	LENGTH OF WA	TER COLUMN (LWC) = T\	WD – DGW	= 4,0	74				
(CASING DIAME	TER 2	IN.							
(ONE STANDING	WELL VOLUM	E=	18 gal.						
		02G/FT: ¾" = 0.0								
- 7	THREE STANDII	NG WELL VOLU	MES =	2,93	FIVE STA	ANDING WI	ELL VOLUN	MES = 4	105	
		ELL EVACUATIO								
	TOTAL VOLUM	E OF WATER RE	EMOVED:		•5(AL. FLO	W RATE		mL/min	
		FLUSH MOUNT		•			COMME	ENŢS		
]	LOCKING CAP		YI	ESX	ИО					
]	PROTECTIVE PO	OST/ABUTMENT	YI YI	ES	NOX	·				
1	NONPOTABLE I	ABEL	YH	ES <u>X</u>	NO					
]	D PLATE		YI	ES <u>X</u>	NO					
1	WELL INTEGRIT	ΓΥ SATISFACTO	RY YE	ESX	NO					
*	WELL YIELD	LOW	MODERA'	ГЕ	HIGH_					
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	252
1243	and the second of the second o	8,72	6.74	9,64	54,3	12,8	19,19	213	and the second of the second design of the second d	3
<i>[</i>	1246	8,28	6.81	· - 4	53,4					
	1244	D. 18	6,87	2.12	47 3	13,3%	14.04			-
	1251	8,28	6.27	2,33	38.0	13.30	19.05	197		
	1831	0100	6,07	G(A)	3010	1.7125	7 1100	'''		\dashv
				-						



A	AMEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	LNUMBER	OS-5S	
S	ITE NAME <u>Duk</u>	ce Energy-Spartan	burgDA	ATE 4- 23	<u>-13</u> T	IME OF SA	MPLE	N/A	
F	TELD PERSONN	VEL TLH			W	'EATHER C	CONDITION	s <u> Sun</u>	ny 650
									7
7	OTAL WELL D	EPTH (TWD)	13	FT. (n	neasured / wel	l tag / drille	rs log/ previo	us report – ci	rcle one)
		ERVAL				NG POINT	FOR DEPT	HFOO	C
Ι	DEPTH TO GRO	UNDWATER (D	GW)	8.6	1	0.7			
I	ENGTH OF WA	TER COLUMN ((LWC) = TV	WD – DGW	= 4,,	36		-	
		TER2							
C	ONE STANDING	WELL VOLUM	E=_ <i>D!</i>	2 gal.					
,		02G/FT: ¾" = 0.0							
7	THREE STANDI	NG WELL VOLU	JMES =	2/16	FIVE STA	NDING W	ELL VOLUN	/IES =	16
		ELL EVACUATIO			- A STATE OF THE S				
7	OTAL VOLUMI	E OF WATER RE	EMOVED:		<u>, 5</u>	SAL. FLO	W RATE		mL/min
V	VELL TYPE:	FLUSH MOUNT	ABOVE 0	GRADE			COMMI	ENTS	
I	OCKING CAP		YE	ES X	NO				
F	ROTECTIVE PO	OST/ABUTMENT	r YI	ES	NOX				
ľ	NONPOTABLE L	LABEL	YH	ES <u>X</u>	NO				
I	D PLATE		Yŀ	ES <u>X</u>	NO				
V	VELL INTEGRIT	TY SATISFACTO	DRY YE	ESX	NO		-		
V	VELL YIELD 1	LOW	MODERA	ΓΕ <u>/</u>	HIGH_				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ORP (mV)	Notes
1233	Initial Reading	8.85	5,37	2,28	33,2	\bigcirc	19.86	253	ren i sina i tali.
	1236	8.85			37,8	0.91	20,12	249	
	1239	8.85	5,36	12,9	35, 3	4,35	20,78	245	
	1242	8.85	5,36	13.4	34.8	4,91	20.81	241	
	10 100	رنبن	2/10	131 (01.0		70.0 (0() !	
								· · ·	
								, , , , , , , , , , , , , , , , , , , ,	



AMEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITOI	RING WELI	NUMBER	OS-10S		
SITE NAME <u>Duk</u>	<u>ce Energy-Spartan</u>	burgDA	TE 4- 23	-13Т	TME OF SA	MPLE	N/I	1	
FIELD PERSONN	NEL TLH			W	EATHER C	CONDITION	s <u> 65 </u>	& Sunny	Wi
								•	
TOTAL WELL D	EPTH (TWD)	13	FT. (n	neasured / wel	l tag / drille	rs log/ previo	us report – ci	rcle one)	
SCREENED INTI					NG POINT	FOR DEPT	HH	<u> </u>	
DEPTH TO GRO	UNDWATER (DO	3W)	8.6	3	2 -				
LENGTH OF WA	TER COLUMN (LWC) = TV	VD – DGW	= 4,	<u> </u>		-		
CASING DIAME	TER2	IN.							
ONE STANDING	WELL VOLUM	E=_ <i></i>	Jal.						
(NOTE $\frac{1}{2}$ " = 0.01									
THREE STANDI	NG WELL VOLU	MES =	2,10	FIVE STA	ANDING W	ELL VOLUN	/IES =	16	
METHOD OF WI				ar i			_		
TOTAL VOLUM	E OF WATER RE	EMOVED:	7	<u>* 5</u> (AL. FLO	W RATE		mL/min	
WELL TYPE:	FLUSH MOUNT	ABOVE C	RADE			COMMI	ENTS		
LOCKING CAP		YE	SX	NO		***************************************			
PROTECTIVE PO	OST/ABUTMENI	YE YE	S	NOX					
NONPOTABLE I	LABEL	YE	SX	NO	<u>.</u>				
ID PLATE		YE	S <u>X</u>	NO					
WELL INTEGRIT	ΓΥ SATISFACTO	RY YE	SX	NO					
WELL YIELD	LOW	MODERAT	Œ	HIGH_		_			
Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
Initial Reading	8.82	5,48	3,50	57,2	0	18,29	241		
1226	8.83	5,42	2,84	42,9	0	18,35	246		
1229	8.83	5,39	2,68	32,0		18:43	252		
1232	8,83	5,36	2,68	23,4	\mathcal{O}	18,45	258		
720									
							,		



A	MEC PROJECT	NUMBER	<u>6228-12-00</u> :	21	MONITO	RING WELI	L NUMBER _	OS-15S		
S	ITE NAME <u>Duk</u>	re Energy-Spartan	burg_DA	TE 4- 23	-13	TIME OF SA	MPLE	N/	A	
F	TELD PERSONN	VEL TLH			v	VEATHER C	CONDITION	s 65°	Sunny	Win
Т	OTAL WELL D	EPTH (TWD)	13	FT. (n	neasured / we	ll tag / drille	rs log/ previo	us report – ci	ircle one)	
S	CREENED INTI	ERVAL	8-13		MEASUR	ING POINT	FOR DEPTH	ITOO	C	
Γ	EPTH TO GRO	UNDWATER (DO	GW)	8.6	9					
I	ENGTH OF WA	TER COLUMN (LWC) = TV	VD – DGW	= <u> 4</u>	131				
		TER2								
C	NE STANDING	WELL VOLUM	E =	<u>71 gal.</u>						
(1	NOTE ½" = 0.01	02G/FT: ¾" = 0.0	23 G/FT: 1'	'= 0.041G/F	T: 2" = 0.163	G/FT: 4"=	0.653 G/FT:	6" = 1.46 G	i/FT)	
T	HREE STANDI	NG WELL VOLU	MES =	2,13	FIVE STA	ANDING W	ELL VOLUM	1ES = <u>3</u>	155	_
N	ETHOD OF WI	ELL EVACUATION	ON: BA	JLER /(PUN	AP OTHER	TYP:	E <u>Peri-Pu</u>	np		_
Т	OTAL VOLUM	E OF WATER RE	MOVED: _		5	GAL. FLO	W RATE		mL/min	
		FLUSH MOUNT	14 Part 15 Par	the same of the sa	_					
1	OCKING CAP		YE	S_X_	NO					
P	ROTECTIVE PO	OST/ABUTMENT	YE	S	NOX					
N	IONPOTABLE I	ABEL	YE	SX	NO					
I	D PLATE		YE	S <u>X</u>	NO					
V	VELL INTEGRIT	ΓΥ SATISFACTC	RY YE	SX	NO					
V	VELL YIELD	LOW	MODERAT	ΓE	HIGH					
	Elapsed Purge Time (in minutes)	Depth to Groundwater	р Н	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
1212	Initial Reading	9,03	4,78	9,95	9,8	0.18	1843	331	John Cod Library of College (199	
INIX	1215	9.03	5.21	10,5	9.5		19,07	288		
		9.03	5.45			0100	19,20			
	1218	9.07	5 (71) C 53	1.93	11/	0	19,21	249		
	1221	7,09	2/2%	611)	11,6		11/2(711		
				7						



Α	MEC PROJECT	`NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	L NUMBER	OR-10S	
S	ITE NAME <u>Duk</u>	ce Energy-Spartan	burg_DA	ATE 4- 23-	<u>13</u> 7	TIME OF SA	MPLE	NA	
F	IELD PERSONN	VEL <u>TLH</u>			WEATHE	R CONDITI	ONS 65	Sunn	y Windy
									/ /
T	OTAL WELL D	EPTH (TWD)	25	FT. (r	neasured / we	ll tag / drille	rs log/ previo	ous report – ci	rcle one)
		ERVAL				ING POINT	FOR DEPT	HH	0
Γ	EPTH TO GRO	UNDWATER (DO	GW)	9,95))				
L	ENGTH OF WA	TER COLUMN (LWC) = T\	WD – DGW	=_151	05		-	
C	ASING DIAME	TER 2	.IN.						
C	NE STANDING	WELL VOLUMI	E=	/4/gal.					
		02G/FT: ¾" = 0.0							
		NG WELL VOLU							
N	IETHOD OF WI	ELL EVACUATIO	ON: BA	AILER / (UI	JP / OTHER:	TYP	E <u>Peri-Pu</u>	mp	
T	OTAL VOLUM	E OF WATER RE	MOVED:		<u>, , 5</u> (GAL, FLO	W RATE		mL/min
V	VELL TYPE:	FLUSH MOUNT	ABOVE (GRADE			COMMI	ENTS	
L	OCKING CAP		YI	ES <u>X</u>	NO			-/)) //
P	ROTECTIVE PO	OST/ABUTMENT	YI	ES	NO <u>X</u>			a/L K	LOZUr Bergu
N	ONPOTABLE L	ABEL	YI	ESX	NO				
II	O PLATE		YI	ES <u>X</u>	NO				
		TY SATISFACTO			NO				
N	VELL YIELD	LOW	MODERA'	TE	HIGH		_		
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	рH	(μS/cm)	(NTU)	(mg/L)	(°C.)	(mV)	Notes
1156	Initial Reading	10,56	6,21	12,0	17,0	3.21	19.09	174	
112	1201		3,52	17,5	11,1	0.4/2	19,27	447	
	1206		3,47			1	19,36	457	
	1211	10.56	3.44	17.8		\sim	19,41	457	
	1211	10136		1710	216		11. [12/	
									
								···	



SITE NAME D		6228-12-002				_	1 1 1		
	uke Energy-Spartan	burg DA	TE 4- 23	-13 T	IME OF SA	MPLE	N/A		
FIELD PERSON	NEL TLH			W	EATHER C	ONDITIONS	600	Sunny	Windy
								,	/
	DEPTH (TWD)				_				
	TERVAL				ING POINT	FOR DEPTH	I <u>TO</u>	<u>C</u>	
DEPTH TO GR	OUNDWATER (De	GW)	۲,	, O					
LENGTH OF W	ATER COLUMN ((LWC) = TV	VD – DGW	=	0				
CASING DIAM	ETER 2	_IN.	1 7						
	G WELL VOLUM								
)102G/FT: ¾" = 0.0								
	OING WELL VOLU								
	VELL EVACUATION								
	ME OF WATER RI			•) (AL. FLO				
WELL TYPE:	FLUSH MOUNT					COMME	NTS		
LOCKING CAP				NO		711	- 11	Klozur	0
	POST/ABUTMENT			NOX		_/-[9/6	K 10241	recsul
NONPOTABLE	LABEL			NO					
ID PLATE				NO		-			
	ITY SATISFACTO			NO					
		MODERAT	.E	HIGH _					
WELL YIELD	LOW	- 	In the first of the second	To producing an addition	T. 3. 780 7 to	or manués édendid. Un .	de alla di Mandalana	and the substance of the second	Name of Lange
Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	Notes	
. 12	Depth to	рН	Cond. (μS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
Elapsed Purge Time	Depth to Groundwater			(NTU)	autoria de la completa III. II. de	(°C)		Notes	
Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater	_{рн} 6,78	(µS/cm)	(NTU) 4,6	(mg/L) 7, 51	(°C) 19734	(mV)	Notes	
Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3 10,14	рН 6,78 6,71	(μS/cm) , Ц , O9	(NTU) 4,6 4,3	(mg/E) 7, 51 4,56	(°C) 19134 19162	(mV) 194 <i>1</i> 91	Notes	
Elapsed Purge Time (in minutes) Initial Reading 1145	Depth to Groundwater 10,14 10,15 10,15	рн 6,78 6,71 6,72	(µS/cm) 1,41 1,09 0,787	4,6 4,3 5,7	(mg/L) 7, 5 4,56 3,86	(c) 19,34 19,62 19,63	(mV) 194 <i>1</i> 91	Notes	
Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3 10,14	рн 6,78 6,71 6,72	(µS/cm) 1,41 1,09 0,787	(NTU) 4,6 4,3	(mg/L) 7, 5 4,56 3,86	(c) 19,34 19,62 19,63	(mV) 194 191 189	Notes	
Elapsed Purge Time (in minutes) Initial Reading 1145	Depth to Groundwater 10,14 10,15 10,15	рн 6,78 6,71 6,72	(µS/cm) 1,41 1,09 0,787	4,6 4,3 5,7	(mg/L) 7, 5 4,56 3,86	(c) 19,34 19,62 19,63	(mV) 194 191 189	Notes	
Elapsed Purge Time (in minutes) Initial Reading 1145	Depth to Groundwater 10,14 10,15 10,15	рн 6,78 6,71 6,72	(µS/cm) 1,41 1,09 0,787	4,6 4,3 5,7	(mg/L) 7, 5 4,56 3,86	(c) 19,34 19,62 19,63	(mV) 194 191 189	Notes	
Elapsed Purge Time (in minutes) Initial Reading 1145	Depth to Groundwater 10,14 10,15 10,15	рн 6,78 6,71 6,72	(µS/cm) 1,41 1,09 0,787	4,6 4,3 5,7	(mg/L) 7, 5 4,56 3,86	(c) 19,34 19,62 19,63	(mV) 194 191 189	Notes	
Elapsed Purge Time (in minutes) Initial Reading 1145	Depth to Groundwater 10,14 10,15 10,15	рн 6,78 6,71 6,72	(µS/cm) 1,41 1,09 0,787	4,6 4,3 5,7	(mg/L) 7, 5 4,56 3,86	(c) 19,34 19,62 19,63	(mV) 194 191 189	Notes	
Elapsed Purge Time (in minutes) Initial Reading 1145	Depth to Groundwater 10,14 10,15 10,15	рн 6,78 6,71 6,72	(µS/cm) 1,41 1,09 0,787	4,6 4,3 5,7	(mg/L) 7, 5 4,56 3,86	(c) 19,34 19,62 19,63	(mV) 194 191 189	Notes	



A	AMEC PROJECT	NUMBER	6228-12-002	21	MONITO	RING WELI	NUMBER	OR-3S		_
S	ITE NAME Dul	ke Energy-Spartan	burgDA	TE 2-23	- <u>13</u> 1	TIME OF SA	MPLE	N/A		
F	TELD PERSON	ke Energy-Spartan NEL <u>TLH</u>			W	EATHER C	ONDITION	s Sur	my Windy	6
Т	OTAL WELL D	EPTH (TWD)	24.5	FT. (n	neasured / we	ll tag / driller	rs log/ previo	us report – ci	rcle one)	
S	CREENED INT	ERVAL	19.5-24.5		MEASUR	ING POINT	FOR DEPTI	<u>TOO</u>	3	
Ε	DEPTH TO GRO	UNDWATER (DO	3W)		<u>8.85</u>					
L	ENGTH OF WA	TER COLUMN (LWC) = TV	VD – DGW	= <u> </u>	5,65				
C	CASING DIAME	TER2	IN.							
C	ONE STANDING	WELL VOLUM	E= <u>2/</u>	57 gal.						
,		02G/FT: ¾" = 0.0			A					
		NG WELL VOLU								
N	METHOD OF WI	ELL EVACUATION E OF WATER RE	ON: BA	ILER / PUN	AD OTHER:	TYP	E <u>Peri-Pu</u>	mp		
Т	OTAL VOLUM	E OF WATER RE	MOVED:		<u>)</u>	GAL. FLO	W RATE		mL/min	
		FLUSH MOUNT								
I	OCKING CAP		YE	ES X	NO		- 2.5	1 . ,		
P	ROTECTIVE PO	OST/ABUTMENT	YE YE	ES	NOX		23	9/L K	lozur Persu	<u>I</u>
N	NONPOTABLE I	LABEL	YE	ES X	NO					_
IJ	D PLATE		YE	ESX	NO				···	_
V	VELL INTEGRI	ΓΥ SATISFACTO	RY YE	ES X	NO					
V	VELL YIELD	LOW	MODERAT	ΓE	HIGH					
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)	Dis, O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
1117	Initial Reading	9,63	6,24	8.05	10,1	5,98	19.84	275		
V 1 · 1	1122	9,65				10,38		248		
	1127	9,66	7,01	5,28		11,88	19,46	222		
	1132	9,66	7,11	4,95		11.85		209		
		1.55				(1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \				



Α	MEC PROJECT	NUMBER	<u>6228-12-00</u>)21	MONITOI	RING WELI	NUMBER _	OR-3W	1.
		ce Energy-Spartan							4
F	IELD PERSONN	IEL <u>TLH</u>			WEATHE	R CONDITI	ONS 60	^S Sunny	Windy
T	OTAL WELL D	EPTH (TWD)	23	FT. (r	neasured / we	ll tag / drille	rs log/ previo	us report – ci i	rcle one)
		ERVAL			-	ING POINT	FOR DEPTI	I TOC	· · · · · · · · · · · · · · · · · · ·
Đ	EPTH TO GRO	UNDWATER (DO	GW)	9,2	8				
L	ENGTH OF WA	TER COLUMN (LWC) = T	WD – DGW	=	13172			
C	ASING DIAME	TER <u>2</u>	IN.						
C	NE STANDING	WELL VOLUM	E=_ 2	$\frac{15}{\text{gal}}$					
•		02G/FT: ¾" = 0.0			/ 3				_
Т	HREE STANDII	NG WELL VOLU	MES =	6.15	FIVE STA	ANDING W	ELL VOLUM	TES =/	25
		ELL EVACUATIO			OTHER:		E <u>Peri-Pu</u>		
T	OTAL VOLUMI	E OF WATER RE	EMOVED:		.5	GAL. FLO	W RATE	200	mL/min
		FLUSH MOUNT						ENTS	
L	OCKING CAP		Y	ES X	NO			******	
P	ROTECTIVE PO	OST/ABUTMENT	Y)	ES	NOX	<u></u>	PEG		
. N	IONPOTABLE I	ABEL	Y	ES X	NO		17.5	g/L K	loour Persult
II	O PLATE		Y	ES <u>X</u>	NO				
V	VELL INTEGRIT	TY SATISFACTO	RY Y	ES <u>X</u>	NO				
V	VELL YIELD	LOW // /	MODERA	TE	HIGH		_		
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp	ORP (mV)	Notes
]]0[Initial Reading	9168	6.18	5.18	11.0	5,26	14,27	235	
11- 1	110%	9.68	\$45	5,67	10,5	3,77	19.88	287	
	1147	9,68		10.8			19,95	221	
	1116	9,68	5.42		1016	0,98	20,05	293	
	11.42	7.00	1.00		, , , , , , , , , , , , , , , , , , ,	_ , . 0			
									-



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OR-5W
SITE NAME Duke Energy-Spartanburg DATE 3-23-13 TIME OF SAMPLE
FIELD PERSONNEL TLH WEATHER CONDITIONS 60° Sunny Windy
′ ′
TOTAL WELL DEPTH (TWD) 24 FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 19-24 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 9,28
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = 14.72
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME = $\frac{2.41}{\text{gal}}$
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{723}{5}$ FIVE STANDING WELL VOLUMES = $\frac{12.05}{5}$
METHOD OF WELL EVACUATION: BAILER / OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE ML/min
WELL TYPE: FLUSH MOUNT ABOVE GRADE COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YES NO X 23 9/L Klozur Persu
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOW MODERATE HIGH
Elapsed Depth to Purge Time (in minutes) Purge Groundwater PH (μS/cm) Cond. Turbidity Dis, O ₂ Temp ORP Notes
5 Initial Reading 9,43 5.03 6.41 28.8 0.25 19.39 284
1050 9,49 5,67 5,81 11,7 3,08 18,76 265
1055 9.49 5.91 5.51 11.5 3.36 18.84 254
1100 9,49 6,01 5,43 11,4 3,58 18,79 248
1100 1111 311 311 311 311 311 311 311 31



A	MEC PROJECT	NUMBER	5228-12-00	21	MONITO	RING WELL	NUMBER .	OR-10W		
S	ITE NAME <u>Duk</u>	ce Energy-Spartant	ourgDA	ATE <u>4-23</u>	<u>-13</u> T	ΓIME OF SA	MPLE	NA		
F	IELD PERSONN	EL TLH			v	VEATHER C	ONDITION	s_60°	Sunny Win	
		EPTH (TWD)								
	SCREENED INTERVAL 18.5-22.5 MEASURING POINT FOR DEPTH TOC									
D	DEPTH TO GROUNDWATER (DGW) 9,16									
L	LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{13.34}{}$									
	CASING DIAMETER 2 IN.									
	ONE STANDING WELL VOLUME = 2,19 gal.									
	NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT) THREE STANDING WELL VOLUMES = $\frac{10.95}{10.95}$									
					PRA					
		ELL EVACUATIO						_		
T	OTAL VOLUM	TAL VOLUME OF WATER REMOVED: 5 GAL. FLOW RATE 1, 75 mL/min								
V	TELL TYPE: FLUSH MOUNT ABOVE GRADE COMMENTS									
L	LOCKING CAP YES X NO									
P	PROTECTIVE POST/ABUTMENT YES NO X 14 g/L Klozur Persulta									
N	NONPOTABLE LABEL			YES X NO						
П	O PLATE		YI	YES X NO						
V	ELL INTEGRIT	TY SATISFACTO	RY YI	ES X	NO	<u>.</u>				
W	VELL YIELD	LOW	MODERA'	TE	HIGH		_			
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
1029	Initial Reading	9.45	6.47	6.30	22,5	0:61	19,15	34		
(1034	9,52		6.67		0,38				
	1034	9,52			22.5					
	1044	9,52		6,57		0,10	10,24	265		
	1047	11,52	J'& 1	6137	441)	0,10	10,01			
	····									
			! 			-				
					,					



1	AMEC PROJECT	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WELI	NUMBER	MW-13 IS	SOC
Ç	SITE NAME <u>Duk</u>	ke Energy-Spartan	burg DA	ATE 4- 23	<u>-13</u>]	TIME OF SA	MPLE		NA
1	SITE NAME <u>Duk</u> FIELD PERSONN	VEL <u>TLH</u>			weathe	R CONDITI	ons_ <i>60</i>	<u> Sunny</u>	Windy
								,	,
-	TOTAL WELL D	EPTH (TWD)	21.5	FT. (n	neasured / we	ll tag / drilleı	rs log/ previo	ous report – ci	rcle one)
	SCREENED INTI					ING POINT	FOR DEPT	HTO0	<u>C</u>
1	DEPTH TO GRO	UNDWATER (DO	GW)	61	69				
]	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= 14,	56			
(CASING DIAME	TER4	_IN.	£					
	ONE STANDING								
	(NOTE ½" = 0.01								
	THREE STANDII								
	METHOD OF WE								
	TOTAL VOLUM				<u>(,) </u>	fAL. FLO			
	WELL TYPE	The state of the s			NO			ZN18	
	LOCKING CAP				NO		2	(1/1 1	Ubzur Persulfa
	PROTECTIVE PO				NO <u>_</u> NO		<u></u>	3/1-	(DZWI /CI)4(Ja
	NONPOTABLE L ID PLATE	ADEL			NO				
	WELL INTEGRIT	rv satisfa <i>cte</i>							
	WELL YIELD 1			•					
	Elapsed								
	Purge Time	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
	(in minutes)	4	<i>f</i> 111						
1008		(L) . 4	6,69	6,25	48,4	1,7	19,61		
	1011	6,69	6,68	6,28		0.82	19,12	3	
	1014		6.69	6.32	42.8	0136	19,08		
	1017	6.69	6168	6,32	45,1	0	18,49	-15	
					•				



1	AMEC PROJECT	NUMBER	6228-12-00	021	MONITO	RING WEL	L NUMBER	. <u>MW-1SS</u>	
		ke Energy-Spartan							
I	FIELD PERSON	NEL <u>TLH & SS</u>				VEATHER (CONDITION	us overca	st m:d 80's
7	TOTAL WELL D	EPTH (TWD)	20.39	FT. (1	measured / we	ell tag / drille	ers log/ previ	ous report – c	ircle one)
5	SCREENED INT	ERVAL	10.39-20.3	9	MEASUR	ING POINT	FOR DEP1	TOH	C
I	DEPTH TO GRO	UNDWATER (De	GW)	7.83					
I	LENGTH OF WA	ATER COLUMN (LWC) = T	WD – DGW	= 12.	56		<u></u>	
		TER 2		_					
(ONE STANDING	WELL VOLUM	E= <u>æ}</u> 1	<u> </u>					
(NOTE ½" = 0.01	02G/FT: ¾" = 0.0	23 G/FT: 1	"= 0.041G/F					
1	THREE STANDI	NG WELL VOLU	MES =	6.15	FIVE ST	ANDING W	ELL VOLU	MES = 12	Dr 25
N	METHOD OF WI	ELL EVACUATIO	ON: BA	AILER (PUI	MP OTHER	: TYF	PE <u>Peri-P</u> ı	ımp	
7	TOTAL VOLUM	E OF WATER RE	MOVED:	9° .	<u>5</u> (GAL. FLC	W RATE	125	mL/min
V	WELL TYPE: (FLUSH MOUNT	ABOVE (GRADE			COMM	ENTS	
I	OCKING CAP		Y)	ES X	NO				
P	PROTECTIVE PO	OST/ABUTMENT	Y	ES	NOX				
N	NONPOTABLE I	ABEL	YI	ES <u>X</u>	NO				
I	D PLATE		YI	ES X	NO			-	·
V	VELL INTEGRIT	TY SATISFACTO	RY YI	ES X	NO				
V	VELL YIELD	LOW	MODERA	TE	HIGH				
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	pН	(μS/cm)	(NTU)	(mg/L)		(mV)	Notes
13:52	Initial Reading	0 us	4.66	8.212	3.5	3.82	26.36	Z 28	
, ,	13157	8.51	૫.મા	0.215			25.70	259	
	14:02	8,60	4.41	0.217	2.1 6.2	2.70	25.25	287	
			4.41	0.215		2.24			
	14:07	8.62	1.71	0.213	6.5	1.92	25.14	295	
			 i						
		:							



SITE NAME Duke Energy-Spartanburg DATE 7-3 -13 TIME OF SAMPLE // 55 FIELD PERSONNEL TLH & SS WEATHER CONDITIONS Cloudy 75 TOTAL WELL DEPTH (TWD) 62 FT. (measured / well tag / drillers log/ previous report - circle one) SCREENED INTERVAL 57-62 MEASURING POINT FOR DEPTH TOC DEPTH TO GROUNDWATER (DGW) 6.67 LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 55.38 CASING DIAMETER 2 IN. ONE STANDING WELL VOLUME = 9.08 gal.
TOTAL WELL DEPTH (TWD) 62 FT. (measured / well tag / drillers log/ previous report - circle one) SCREENED INTERVAL 57-62 MEASURING POINT FOR DEPTH TOC DEPTH TO GROUNDWATER (DGW) 67 LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 55. 38 CASING DIAMETER 2 IN.
TOTAL WELL DEPTH (TWD) 62 FT. (measured / well tag / drillers log/ previous report – circle one) SCREENED INTERVAL 57-62 MEASURING POINT FOR DEPTH TOC DEPTH TO GROUNDWATER (DGW) 67 LENGTH OF WATER COLUMN (LWC) = TWD – DGW = 55. 38 CASING DIAMETER 2 IN.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1" = 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT) THREE STANDING WELL VOLUMES = 27.25 FIVE STANDING WELL VOLUMES = 45.44 METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE Peri-Pump TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE 2.00 mL/min
WELL TVDE. ELTICITYOUNT ADOVE ON AN
LOCKING CAP YES X NO COMMENTS
PROTECTIVE POST/ABUTMENT YESNOX
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO NO
WELL INTEGRITY SATISFACTORY YES X NO WELL YIELD LOW MODERATE HIGH
WELL YIELD LOW MODERATE HIGH Elapsed Purge Time (in minutes) Depth to Groundwater pH (µS/cm) (NTU) (mg/L) ("C") (mV) Notes
WELL YIELD LOW MODERATE HIGH Elapsed Purge Time (in minutes) Depth to Groundwater PH (µS/cm) (NTU) (mg/L) (C) (mV) Notes
WELL YIELD LOW
WELL YIELD LOW
WELL YIELD LOW MODERATE HIGH
WELL YIELD LOW MODERATE HIGH Elapsed Purge Time (in minutes) Depth to Groundwater (in Minutes) PH (in Minutes) (in Minutes) (in Minutes) Cond. (in Minutes) (in Minutes) (in Minutes) (in Minutes) (in Minutes) Cond. (in Minutes) (in Minutes
WELL YIELD LOW MODERATE HIGH Flapsed Purge Time (in minutes) Depth to Groundwater (μS/cm) (NTU) (mg/L) (C) (mV) Notes (104) Initial Reading 7/5 6/82 0/189 14-1 3/49 20/27 -35 1051 7/15 7/41 0/190 7/1 3/53 18/76 -49 1056 7/15 7/43 0/190 7/1 3/56 18/84 -51
WELL YIELD LOW MODERATE HIGH Flapsed Purge Time (in minutes) Depth to Groundwater (μS/cm) (NTU) (mg/L) (C) (mV) Notes (104) Initial Reading 7/5 6/82 0/189 14-1 3/49 20/27 -35 1051 7/15 7/41 0/190 7/1 3/53 18/76 -49 1056 7/15 7/43 0/190 7/1 3/56 18/84 -51
WELL YIELD LOW MODERATE HIGH Flapsed Purge Time (in minutes) Depth to Groundwater (μS/cm) (NTU) (mg/L) (C) (mV) Notes (104) Initial Reading 7/5 6/82 0/189 14-1 3/49 20/27 -35 1051 7/15 7/41 0/190 7/1 3/53 18/76 -49 1056 7/15 7/43 0/190 7/1 3/56 18/84 -51
WELL YIELD LOW MODERATE HIGH Flapsed Purge Time (in minutes) Depth to Groundwater (μS/cm) (NTU) (mg/L) (C) (mV) Notes (104) Initial Reading 7/5 6/82 0/189 14-1 3/49 20/27 -35 1051 7/15 7/41 0/190 7/1 3/53 18/76 -49 1056 7/15 7/43 0/190 7/1 3/56 18/84 -51



AMEC PROJEC	T NUMBER	6228-12-0	021	MONITO	ORING WEL	LL NUMBER	MW-3SS	
SITE NAME Du	ike Energy-Spartar	nburg D	АТЕ <u>8- 1</u>	-13	TIME OF S	AMPLE	8:05	
FIELD PERSON	NEL <u>TLH & SS</u>	3			WEATHER	CONDITIO	NS overcas	t mid 70's
TOTAL WELL I	DEPTH (TWD)	13.25	FT. (measured / w	ell tag / drill	ers log/ previ	ous report – c	ircle one)
SCREENED INT	ERVAL	8.25-13.25	5		MEASURIN	G POINT FO	OR DEPTH	TOC
DEPTH TO GRO	OUNDWATER (D	GW)	8.13					
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	5.	12		_	
CASING DIAME	ETER2	_IN.	m21					
ONE STANDING	WELL VOLUM	E = *	gal.			•		
(NOTE $\frac{1}{2}$ " = 0.01	102G/FT: ¾" = 0.0)23 G/FT: 1	1"= 0.041G/J	FT: 2" = 0.16	3 G/FT: 4":	= 0.653 G/F]	T: 6" = 1.46 C	J/FT)
	NG WELL VOLU							12
METHOD OF W	ELL EVACUATION	ON: B	AILER PU	MPOTHER	: TYI	PE <u>Peri-P</u> ı	ımp	
	E OF WATER RI			<u>. 5</u>	GAL. FLC	W RATE_	100	mL/min
`	FLUSH MOUNT)ABOVE	GRADE			COMM	ENTS	
LOCKING CAP			ES X	NO				
PROTECTIVE PO	OST/ABUTMENT	Г Ү.	ES	NO >	ζ	·		
NONPOTABLE I	LABEL	Y	ES X	NO				
ID PLATE				NO				
	TY SATISFACTO							
WELL YIELD	LOW	MODERA	TE /	HIGH				
Elapsed Purge Time	Depth to	And the second second	Cond.	Turbidity	Dis. O ₂	Temp	ORP	
(in minutes)	Groundwater	PΗ	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes
Initial Reading	8.3	6.62	0.467	5.6	3.45	22.57	143	<u> 1887 - Maria Maria Spania (1984) (1986) (1</u>
7:56	8.3	6.63	0.471	1.3	1.40	22. 2.5	142	
8:01	8.3	6.63	0.472	0.4	1.43	22.09	142	
						-		
							-	
		-						
				-				

7:51



AMEC PROJECT NUMBER	6228-12-0021		_MONITO	RING WELI	L NUMBER	<u>MW-10S</u>	
SITE NAME <u>Duke Energy-Sparta</u>	nburgDAT	E_ % /	13 T	TIME OF SA	MPLE		95
FIELD PERSONNEL TLH & S	S		V	EATHER C	CONDITION	s_541	ny 80°
TOTAL WELL DEPTH (TWD) _	18.54	FT. (me	easured / wei	ll tag / drille	rs log/ previo	ous report – c	ircle one)
SCREENED INTERVAL				ING POINT	FOR DEPT	HTO	<u>C</u>
DEPTH TO GROUNDWATER (E)GW)	10,9	8	ure e			
LENGTH OF WATER COLUMN	(LWC) = TWD) – DGW =		16		_	
CASING DIAMETER 2		,					
ONE STANDING WELL VOLUM	1E = 1 · 2 4	gal.					
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.							
THREE STANDING WELL VOL							2
METHOD OF WELL EVACUATI		77				-	
TOTAL VOLUME OF WATER R	- Carried Street, or other Persons and the Contract of the Con	_ •		GAL. FLO	W RATE	<u> </u>	mL/min
WELL TYPE: FLUSH MOUNT	The state of the s				COMMI	ENTS	
LOCKING CAP			NO				
PROTECTIVE POST/ABUTMEN			_NOX				
NONPOTABLE LABEL			_NO				
ID PLATE			_NO				
WELL INTEGRITY SATISFACT	-		_NO				
WELL YIELD LOW	_MODERATE	- REPORTER	HIGH _				
Elapsed Depth to Purge Time (in minutes)	100 Parties 170 H (0.000) 14 (0.000)	Cond. '	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C')	ORP (mV)	Notes
Initial Reading 11.22	/ 1 / /	01263	20.5	0.03	77 มา	, n – 7	
850 11.27				0153	22.42	121	
	6.11 0	1263	14.6	0,25	22,74	190	
	I i	263	9,8		22.85		
900 11.22	167/11 1/2	ノ・ベル・イト	$\mathbf{Y} \cdot \mathbf{A} = \mathbf{I}$	0	22.92	153	1
				-	1	````	



AMEC PROJECT	NUMBER	6228-12-0	021	MONITO	RING WELI	LNUMBER	MW-10D		
SITE NAME Du	ke Energy-Sparta	nburg D							
FIELD PERSONI	NEL <u>TLH & S</u>	3			VEATHER (CONDITION	s <u> 5ин</u>	KI	80%
								/	,
TOTAL WELL D	EPTH (TWD) _	39	FT. (1	measured / we	ll tag / drille	rs log/ previo	us report – ci	ircle on	e)
SCREENED INT					ING POINT	FOR DEPTE	I <u>TO</u>	C	
DEPTH TO GRO									
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	= <u>\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \</u>	.54				
CASING DIAME			, ,,,,,						
ONE STANDING	WELL VOLUM	E=_ 4 ′	68 gal.			·			
(NOTE $\frac{1}{2}$ " = 0.01	02G/FT: ¾" = 0.0	023 G/FT: 1	"= 0.041G/I	FT: 2" = 0.163	3 G/FT: 4"=	= 0.653 G/FT:	6" = 1.46 C	G/FT)	
THREE STANDI				ATT STATE OF THE S				3,4	
METHOD OF WI									<u>.</u>
TOTAL VOLUM			mil.)(GAL. FLO	W RATE	200	mI	_/min
WELL TYPE:	FLUSH MOUNT	N				COMME	NTS	· · · · · · · · · · · · · · · · · · ·	
LOCKING CAP				NO					
PROTECTIVE PO	OST/ABUTMEN'			ONX					
NONPOTABLE I	LABEL	Y	ESX	NO					
ID PLATE				NO					
WELL INTEGRIT									
WELL YIELD	LOW	_MODERA	TE	HIGH .					
Elapsed Purge Time	Depth to	рH	Cond.	Turbidity	Dis. O ₂	Temp	ORP		Notes
(in minutes)	Groundwater	Y	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)		INUTES
Initial Reading	10.79	6.29	0.202	12.0	1,62	21.73	142		
\rightarrow	10.81	6.99	0.179	65	0.67	21,56	91		
3>	10.81		0,175		,				
· - >	10.21	7.08	0.174	4.8	0.72	21.63	85 75		
			•					· -	
			-						
								-"	



A A A A A
AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER MW-11S 4 Dup - 2
SITE NAME <u>Duke Energy-Spartanburg</u> DATE &- (-13 TIME OF SAMPLE 1:20
FIELD PERSONNEL TLH & SS WEATHER CONDITIONS Wercas & mid 70's
TOTAL WELL DEPTH (TWD) <u>14.6</u> FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 4.6-14.6 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW)
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =
CASING DIAMETERIN.
ONE STANDING WELL VOLUME = 4 6 gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = 100 FIVE STANDING WELL VOLUMES = 3
METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED:
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YESNOX
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOWMODERATEHIGH
Elapsed Purge Time (in minutes) Depth to Groundwater Depth to Groundwater Depth to Groundwater Depth to Groundwater Depth to Groundwater Depth to Groundwater Depth to (μS/cm) Cond, Turbidity Dis, O ₂ (mS/C) Temp ORP Notes
Initial Reading 11.54 5.00 0.186 19.7 4.95 20.47 233
8:56 12.07 3.49 0.194 17.5 4.06 19.87 302

8	5	}	-
			_

Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
Initial Reading	11.54	5.00	0.186	19.7	4.95	20.47	233	
9: 56	12.07	3.49	0.194	17.5	4.06	19.87	302	
9 :01	12.14	3.60	0-196	11.7	3.22	19.58	312	
9:06	13.08	3.75	0, 219	14.0	2.65	/9.806	332	lowered fump n
9:11	13.00	3.75	0.221	14.1	2.47	19,49	337	



	AMEC PROJECT	NUMBER	6228-12-00	21	MONITO	RING WELI	L NUMBER _	MW-11D	
:	SITE NAME <u>Duk</u>	<u>ke Energy-Spartan</u>	burg Da	ATE 9 - 1	<u>-13</u> 7	TIME OF SA	MPLE	1125	
]	FIELD PERSONN	VEL <u>TLH & SS</u>			V	/EATHER (CONDITIONS	s overcast	mid 70's
,	TOTAL WELL D	EPTH (TWD)	31.2	FT. (n	neasured / we	ll tag / drille	rs log/ previo	us report – eiro	cle one)
		ERVAL			MEASUR	ING POINT	FOR DEPTH	I <u>TOC</u>	
		UNDWATER (DO							
]	LENGTH OF WA	TER COLUMN (LWC) = TV	WD – DGW	= 23	, 17			
		TER 2		- A					
(ONE STANDING	WELL VOLUM	E= <u>3</u>	gal.					
	•	$02G/FT: \frac{3}{4}" = 0.0$							- A P
-	THREE STANDII	NG WELL VOLU	MES =	11.3/	FIVE STA	ANDING W	ELL VOLUM	IES =	1/r4)
		ELL EVACUATIO		Andrew Company					
		E OF WATER RE			<u> 15</u>	BAL. FLO	W RATE) 00	mL/min
•	WELL TYPE: (FLUSH MOUNT	/ ABOVE (GRADE			COMME	NTS	
]	LOCKING CAP		YI	ES <u>X</u>	NO				
]	PROTECTIVE PO	OST/ABUTMENT	YI	ES	NOX	· 			
1	NONPOTABLE I	ABEL	YI	ES <u>X</u>	NO			,	
]	D PLATE		YI	ES X	NO				
		TY SATISFACTO			-				
1	WELL YIELD	LOW	MODERA'	TE	HIGH _				
	Elapsed	Depth to		Cond.	Turbidity	Dis. O2	Temp	ORP	
	Purge Time (in minutes)	Groundwater	pН	(μS/cm)	(NTU)	(mg/L)		(mV)	Notes
1113	Initial Reading	11,65	6.26	0.233	6.5	3.53	25,9	725	
	11185	11.67		0.237		2,85	25.54	217	
	1118	11.67	1.6	0,240	6,2		25.52	204	
	1128	11.68	6.63	0.241	5.1	2.47	25.51	198	
	o-dp	- 1 g/ G	<i>9</i>	- D- VI			120,01		
	-								
							1-	2	
								· · · · · · · · · · · · · · · · · · ·	
			,						



SITE NAME <u>Duke Energy-Spartanburg</u> DATE 7-31 -13 TIME OF SAMPLE 15: 15 FIELD PERSONNEL <u>TLH & SS</u> WEATHER CONDITIONS overcast mid 80's
FIELD PERSONNEL TLH & SS WEATHER CONDITIONS overcast and 80's
TOTAL WELL DEPTH (TWD)15.27FT. (measured / well tag / drillers log/ previous report - circle one)
SCREENED INTERVAL 5.27-15.27 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW)
LENGTH OF WATER COLUMN (LWC) = TWD – DGW =
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME = 1,91 gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{5.82}{100}$ FIVE STANDING WELL VOLUMES = $\frac{7.7}{100}$
METHOD OF WELL EVACUATION: BAILER (PUMP OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED:
WELL TYPE: (FLUSH MOUNT)/ ABOVE GRADE COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YESNO X
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOWMODERATEHIGH
Elapsed Purga Time Depth to Cond. Turbidity Dis. O2 Temp ORP
Purge Time (in minutes) Depth to Groundwater pH Cond. Turbidity (mS/cm) Dis. O ₂ (mg/L) Temp (mg/L) ORP (mV) Notes
Initial Reading 3.62 4.96 6.101 116 2.11 25.02 251
15:02 3.65 4.88 0.102 80.3 0.41 24.22 237
15:02 3.65 4.88 0.602 89.3 0.41 24.22 237 15:07 3.63 4.87 0.103 42.7 0.56 23.88 238
15:02 3.65 4.88 0.602 89.3 0.41 24.22 237 15:07 3.63 4.87 0.103 42.7 0.56 23.88 2.38
15:02 3.65 4.88 0.602 89.3 0.41 24.22 237 15:07 3.63 4.87 0.103 42.7 0.56 23.88 238
15:02 3.65 4.88 0.602 89.3 0.41 24.22 237 15:07 3.63 4.87 0.103 42.7 0.56 23.88 238
15:02 3.65 4.88 0.602 89.3 0.41 24.22 237 15:07 3.63 4.87 0.103 42.7 0.56 23.88 238
15:02 3.65 4.88 0.602 89.3 0.41 24.22 237 15:07 3.63 4.87 0.103 42.7 0.56 23.88 238
15:02 3.65 4.88 0.602 89.3 0.41 24.22 237 15:07 3.63 4.87 0.103 42.7 0.56 23.88 238



VES YES YES ACTORY YES MODERATE OF PH ()	ADE X NO NO X NO X NO X NO X NO	IIGH	COMN. Temp (°C) 27.37	MENTS	Notes
VES YES MENT YES YES YES ACTORY YES MODERATE O PH ()	ADE X NO NO X NO X NO X NO Turbi µS/cm) (NT	IIGH	COMN	MENTS	
UNT ABOVE GR. YES MENT YES YES YES ACTORY YES MODERATE	ADE X NO X NO X NO X NO X NO Turbi	X HIGH	COMN	MENTS	
YES YES ACTORY YES	ADE X NO NO X NO X NO X NO X NO	X	COMN	MENTS	
YES YES ACTORY YES	ADE X NO NO X NO X NO X NO X NO	X	COMN	MENTS	
UNT ABOVE GR. YES MENT YES YES YES	ADE X NO NO X NO X NO	X	COM	MENTS	
UNT / ABOVE GR. YES MENT YES	ADENONO	X	COM	MENTS	
UNT ABOVE GR. YES	ADE X_NO		COM		
UNT ABOVE GR.	ADE		COM		
UNT ABOVE GR	ADE	GAL.]			
	j	(†A∣. ∣			
ER REMOVED:	JAMES TOWN TO	11112IV.	TITE <u>refi-j</u>	l oð	
JATION: BAIL	ER PIMP / N	LHEB. AE STANDING	y WELL VOLO (YPE <u>Peri-</u>)		<u> </u>
' = 0.023 G/FT: 1''= VOLUMES =	0.041G/F1: 2" =	= U.163 G/FT; /E CTANDANA	4" = 0.653 G/I	Tr: $6'' = 1.46 \text{G}$	/FT)) 仁 _ つぐ
		0.172 C/FT	411 0 250 00	om (n. 4.155	
IN. 	9				
JMN (LWC) = TWI	D – DGW =	30.85			
ER (DGW)					
30.42-35.42	ME	ASURING PO	INT FOR DEF	TH <u>TOC</u>	2
D) <u>35.42</u>	FT. (measure	ed / well tag / o	lrillers log/ pre	vious report – ci	rcle one)
					t mid 80's
partanburg DAT	TE 7-31-13	TIME O	ESAMPLE		
_	& SS	& SS	& SS WEATH	& SS WEATHER CONDITION	partanburg DATE 7-3) -13 TIME OF SAMPLE 16:00

|5:38

Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)	Dis, O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
3.90	5.12	0.204	4.9	5.97	27.37	208	
4,17	6.22	0.268	12.1	5.56	26.50	147	
4.25	6.26	0.285	18.6	5.33	25.42		
4.26	6.24	0 28.89	22.3	5.13	24.83		
4,26	6.14	0.211	22.9	5.00	2445	141	
							
							
	3.90 4,17 4,25 4.26	Groundwater PH 3.99 5.12 4.17 6.22 4.25 6.26 4.26 5.24	Groundwater PH (μS/cm) 3.44 5.12 0.244 4,17 6.22 0.269 4.25 6.26 0.265 4.26 b.24 0.289	Groundwater PH (µS/cm) (NTU) 3.99	Groundwater PH (μS/cm) (NTU) (mg/L) 3.44	Groundwater PH (μS/cm) (NTU) (mg/L) (°C) 3.44 5.12 0.24 4.4 5.47 27.37 4,17 6.22 0.268 12.1 5.56 26.50 4.25 6.26 0.285 18.6 5.33 25.42 4.26 6.24 0.287 22.3 5.13 24.83	Groundwater PH (µS/cm) (NTU) (mg/L) (°C) (mV) 3.99



AMEC PROJEC		<u>6228-12-0</u>					R <u>MW-13S</u>	
SITE NAME <u>Du</u>	ke Energy-Sparta	<u>nburg</u> D	ATE 7-30	0 -13	TIME OF SA	AMPLE	430	
FIELD PERSON	NEL <u>TLH & S</u>	<u>s</u>			WEATHER	CONDITIO	NS Clou	dy 820
TOTAL WELL F	ነሮውጥሀ (ምህ/ነገነ	15.00	1 244	(11			•
	DEPTH (TWD) _							circle one)
	ERVAL				UNG POINT	FOR DEP	THTC	OC
	OUNDWATER (D	•			(155)	(2.74		
	ATER COLUMN		WD-DGW	/ =		8,29		
	TER 4 WELL VOLUM	_IN.	H+ 100	36				
$\frac{1001E}{2} = 0.01$	02G/FT: ¾"=0.0	J23 G/FT: 1	l"= 0.041G/J	FT: 2" = 0,16: う り むる	3 G/FT: 4"=	= 0.653 G/F	$\Gamma: 6" = 1.46$	G/FT)
THREE STANDI	NG WELL VOLU	JMES =	1000	FIVE ST	ANDING W	ELL VOLU	MES =	1700 60
METHOD OF WI	ELL EVACUATI	ON: (B)	AILER'S PU	MP / OTHER	: TYP	E <u>-Peri-P</u>	ump Beli l	er due to Pro
	E OF WATER RI		•	·	GAL. FLO	W RATE	NA	mL/min
	FLUSH MOUNT					COMM		
LOCKING CAP				NO			~ .	remistry de
	OST/ABUTMENT			NOX				t in Water
NONPOTABLE I	LABEL	YJ	ES X	NO	<u></u> _	_Col	imp	
D PLATE			ES X	NO				
	ΓΥ SATISFACTO			NO			 -	
WELL YIELD	LOW	MODERA'	TE	HIGH_	· position			
Elapsed Purge Time (in minutes)	Depth to Groundwater	рĦ	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C')	ORP (mV)	Notes
Initial Reading	B. C. W. W. W. W. C. C. C. C. C. C. C. C. C. C. C. C. C.	2000 (200) (200) (200)						
	-							
						-		
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						~		



AMEC PROJECT	Γ NUMBER	6228-12-00	021	MONITO	RING WEL	L NUMBER	MW-13D	<u> </u>	
SITE NAME <u>Du</u>	ke Energy-Spartar	iburg_D	ATE <u>7-3</u>)13	TIME OF S.	AMPLE	16/	5	
FIELD PERSON	NEL <u>TLH & SS</u>	5			VEATHER	CONDITION	NS_Clou	edy 850	
								/	
TOTAL WELL D	DEPTH (TWD)	35.4	FT. (1	measured / we	ell tag / drille	ers log/ previ	ous report – c	ircle one)	5) 2)
SCREENED INT					ING POINT	FOR DEPT	TO TO	C	
DEPTH TO GRO	•								
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	= 28/	L J	 	_		
CASING DIAME		_	£ pr						
ONE STANDING									
(NOTE $\frac{1}{2}$ " = 0.01									
THREE STANDI				e>***		ELL VOLU	MES =	3-25	
METHOD OF W.						PE <u>Peri-Pı</u>			
TOTAL VOLUM	The second line is a second line in the second line is a second li			<u>- 5</u> (GAL. FLC			mL/min	
WELL TYPE: (FLUSH MOUNT					COMM		1	1 c
LOCKING CAP				NO		- Vate	r Level u	vas not was	<u>-king</u> .
PROTECTIVE PO				NOX				150 ml/min	
NONPOTABLE I	LABEL			NO				2-27-13 5	<u>O</u> _
ID PLATE	PV C ATION A CYPC			NO		USED	today		
WELL INTEGRI WELL YIELD									
ji sto Sala Misanco de Silino e e		MODEKA	115				Es recentado esta de vo		3 7
Elapsed Purge Time	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
(in minutes)	5	1 00	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Service and the service and th	The second secon				
Initial Reading	NM	608	3.81	28,1	3,41	35.22	315		_
1608		6.73	2.72	17.3	2.8	34.73	310		_
1611		6.73	20/1	طال	1,48	34.69	309		_
1614		603	21/1	8.8	1,9	34/65	308		_
									-
			-						-
		i							4
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									4
									Ī



		T NUMBER			MONITO	RING WEI	L NUMBER	R <u>MW-13</u> 2	TYO!
	SITE NAME Du	ike Energy-Sparta	<u>inburg</u> D	ATE 7- 3	№ -13	TIME OF S	AMPLE	7.75	
	FIELD PERSON							NS <u>Clou</u>	dy 850
	TOTAL WELL I								ircle one)
	SCREENED INT					RING POIN	Γ FOR DEPT	THTO	С
	DEPTH TO GRO	·		7					
	LENGTH OF WA			WD – DGW	´=	15.56		_	
,	CASING DIAME	ETER <u>4</u>	_IN.	می مس					
	ONE STANDING								
	(NOTE $\frac{1}{2}$ " = 0.01	$102G/FT: \frac{3}{4}" = 0.$	023 G/FT: 1	[/0.041G ="ا	FT: 2" = 0.16:	3 G/FT: 4"	= 0.653 G/F]	T: 6" = 1.46 (G/FT)
	THREE STANDI						ELL VOLU	MES =/	1.15
	METHOD OF W	ELL EVACUATI	ON: B	AILER /PU	MP/OTHER	: TYI	PE <u>Peri-Pı</u>	ımp	
	TOTAL VOLUM	The second secon			100	GAL. FLC	W'RATE	1.60	mL/min
	WELL TYPE:	FLUSH MOUNT					COMM	ENTS	
	LOCKING CAP				NO		·		
	PROTECTIVE PO				NO	-			
	NONPOTABLE I	LABEL	Y	ES <u>X</u>	NO				
	ID PLATE				NO		-		
	WELL INTEGRI				NO				
	WELL YIELD	LOW	_MODERA′	TE#	HIGH				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond, (µS/cm)	Turbidity (NTU)	Dis, O ₂ (mg/L)	Temp (°C-)	ORP (mV)	Notes
718	Initial Reading	185	7.02	1.46	11.3	3.12	22-11	281	
•	717	1.05	9.71	8.94	5.6	0.02	. —	135	
	728	9.85	9.68	8.87		000	20.97	1.33	
	737	6.85	10	0,87	7,2	0	20.89	1011	
			4.68	2103	-/-		20,01	104	
					Militaria de la composição Militaria de la composição de la composição de la composição de la composição de la composição de la composição				
				3	grand Arme 15 (1987)				
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		T NUMBER			MONITO	ORING WEI	L NUMBEI	R <u>MW-14S</u>	<u> </u>
:	SITE NAME <u>Du</u>	i <mark>ke Energy-Spart</mark> a	nburg [ATE 7-3]-13	TIME OF S	AMPLE	1310	
		NEL <u>TLH & S</u> :	S		<u> </u>	WEATHER	CONDITIO	NS 80°	Cloudy
									7
	TOTAL WELL I	DEPTH (TWD) _	14.88	FT. (measured / w	ell tag / drill	ers log/ prev	ious report c	circle one)
		ERVAL							
]	DEPTH TO GRO	OUNDWATER (D	GW)	9	,15				
1	LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	'= <u> </u>	<u>· 73</u>	<u></u>	_	•
(CASING DIAME	ETER <u>2</u>	_IN.			•			
(ONE STANDING	G WELL VOLUM	E=	94 gal.					
((NOTE $\frac{1}{2}$ " = 0.01	$102G/FT: \frac{3}{4}" = 0.0$	023 G/FT: 1	l"= 0.041G/I	FT: 2" = 0.16	3 G/FT: 4"	= 0.653 G/F	Γ: 6" = 1.46 (G/FT)
7	THREE STANDI	NG WELL VOLU	JMES =	2.8	<u> L</u> FIVE ST	ANDING W	ELL VOLU	$MES = \underline{4}$. 7
		ELL EVACUATI					PE <u>Peri-P</u>	ımp	·
7	FOTAL VOLUM	E OF WATER RI	EMOVED:		15	GAL. FLC	W RATE_	150	mL/min
7	WELL TYPE: (FLUSH MOUNT	/ ABOVE	GRADE			COMM	ENTS	
I	LOCKING CAP	The state of the s	Y	ES X	NO				
P	PROTECTIVE PO	OST/ABUTMENT	Υ.	ES	NO	ζ			
N	NONPOTABLE I	LABEL	Y	ES X	NO				
Ι	D PLATE		Y	ES X	NO	 -			
V	WELL INTEGRI	ΓΥ SATISFACTO	ORY Y	ES X	NO				
V	WELL YIELD	LOW	MODERA	TE	HIGH		<u> </u>		
	Elapsed	Depth to		Cond.	T. W. L. HIZ	Di O			
	Purge Time (in minutes)	Groundwater	рH	(μS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C')	ORP (mV)	Notes
1250	Initial Reading	9.58	6,24	0168	4,9	101		9	
100,00	<u> </u>	30			<u>' </u>	1.31	20.27	15/	
	1255	9.60	5,55			0.66	20154	213	
	1300						22.37		
	1305	9.60	5.44	0:101	3.9	0.59	22.32	225	
i									
						· · · · · · · · · · · · · · · · · · ·			
									



A	AMEC PROJECT	NUMBER	6228-12-00)21	MONITO	RING WEL	L NUMBER	MW-14D	
S	SITE NAME <u>Dul</u>	ke Energy-Spartan	burg D.	ATE 7- ?)	-13	ΓIME OF SΑ	AMPLE	1235	
F	TELD PERSONN	NEL TLH & SS			V	VEATHER (CONDITIO	VS PD	Closedy
								·	- /
Γ	TOTAL WELL D	EPTH (TWD)	34.61	FT. (n	neasured / we	ell tag / drille	ers log/ previ	ous report – c	ircle one)
		ERVAL <u> 29.61-34</u>		-		ING POINT	FOR DEPT	TO TO	C
Ι	DEPTH TO GRO	UNDWATER (DO	3W)	7.6	28	4 4 5			
L	ENGTH OF WA	TER COLUMN (LWC) = T	WD – DGW	=	6.43			
C	CASING DIAME	TER2	_IN.	ń. <u>a</u>					
C	ONE STANDING	WELL VOLUMI	E=	gal.					
(NOTE $\frac{1}{2}$ " = 0.01	$02G/FT: \frac{3}{4}" = 0.0$	23 G/FT: 1	"= 0.041G/F	T: 2 " = 0.163	3 G/FT: 4"=	= 0.653 G/F]	r: 6" = 1.46 C	G/FT)
		NG WELL VOLU			T-100-				
		ELL EVACUATIO							
		E OF WATER RE			<u> </u>	GAL. FLO	W RATE_		mL/min
V	VELL TYPE: (1	FLUSH MOUNT)ABOVE (GRADE			COMM	ENTS	
I	OCKING CAP	Name of Street, or other Parks, and the Street, or other Parks	YI	ES X	NO				
P	ROTECTIVE PO	OST/ABUTMENT	YI	ES	NOX				
N	NONPOTABLE I	.ABEL	YI	ES X	NO				
IJ	D PLATE		YJ	ES <u>X</u>	NO				· · · · · · · · · · · · · · · · · · ·
V	VELL INTEGRIT	ΓΥ SATISFACTO	RY YI	ES X	NO				
V	VELL YIELD 1	LOW	MODERA'	TE	HIGH				
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	Purge Time (in minutes)	Groundwater	pН	(µS/cm)	(NTÚ)	(mg/L)	(°C)	(mV)	Notes
215	Initial Reading	8.5	7.37	0,273	0	1.54	24.2	タフ	india in the second second second second second second second second second second second second second second
	1220	8.5	7.29	0.242		8.73	22.50	88	
	1225	815	7, 29	0,243	0		22,39	89	
	1230	8.5		0,243	0	0.54	22.35	89	
	10100		* : 60-	0.00		<u> </u>	7. XX (7.)	0.	
				-					
		_							
i									



AMEC PROJECT	NUMBER	6228-12-00)21	MONITO	RING WEL	L NUMBER	<u>MW-15S</u>	·	
SITE NAME <u>Du</u>									
FIELD PERSON	NEL <u>TLH & S</u> S	3			VEATHER	CONDITION	vs Clou	dy 750	
								(
TOTAL WELL D	EPTH (TWD)	15.15	FT. (1	measured / we	ell tag / drille	ers log/ previ	ous report – c	circle one)	
SCREENED INT					ING POINT	FOR DEPT	HTO	OC	
DEPTH TO GRO	UNDWATER (D	GW)	6.1.	<u></u>					
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	=	<u>1,03</u>		_		
CASING DIAME			8.77		-				
ONE STANDING	WELL VOLUM	E =	. 4 8 gal.						
(NOTE $\frac{1}{2}$ " = 0.01	$02G/FT: \frac{3}{4}$ " = 0.0	023 G/FT: 1	"= 0.041G/F	FT: $2" = 0.163$	3 G/FT; 4" =	= 0.653 G/FT	C: 6" = 1.46 0	G/FT)	
THREE STANDI	NG WELL VOLU	JMES =	9,44	FIVE ST.	ANDING W	ELL VOLU	MES =	104	
METHOD OF WI	ELL EVACUATI	ON: BA	AILER / PUI	MP/OTHER	: TYF	PE <u>Peri-P</u> u	ımp	<u> </u>	
TOTAL VOLUM	E OF WATER RI	EMOVED:	***************************************		GAL. FLC	W RATE	1050)mL/min	
WELL TYPE:	FLUSH MOUNT	/ ABOVE	GRADE			COMM	ENTS		
LOCKING CAP				NO					
PROTECTIVE PO	OST/ABUTMENT			NOX					
NONPOTABLE I	LABEL			NO					
ID PLATE				NO			· · ·		
WELL INTEGRI				NO					
WELL YIELD	LOW	_MODERA'	IE_	HIGH					
Elapsed Purge Time	Depth to	рН	Cond.	Turbidity	Dis. O2	Temp	ORP		
(in minutes)	Groundwater		(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes	
5 Initial Reading	6.12	6.53	0.308	12:7	2.75	20,40	-51		
1010	6.14	6.38	0.150		1.9	20.21			
1015	6.14	6133	0,149	9.8	1.86	20123	-13		
1020	6:14	6.32	01148	8.1	1.86	20,21	-14		
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					ν.			ing.	
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AMEC PROJECT	Γ NUMBER	6228-12-0	021	MONITO	ORING WEL	L NUMBER	<u>MW-15D</u>	<u> </u>	
SITE NAME Du	ke Energy-Sparta	<u>nburg</u> D	ате <u> 7-3</u>	-13	TIME OF SA	AMPLE	9.45		
FIELD PERSON	NEL <u>TLH & S</u>	S	`	· 	WEATHER (CONDITIO	vs <u> </u>	udy 7	50
TOTAL WELL D	EPTH (TWD) _	34.60	FT. (1	measured / w	ell tag / drille	ers log/ previ	ous report – c	ircle one)	
SCREENED INT	ERVAL 29.60-3	4.60		MEASUE	RING POINT	FOR DEPT	TO TO	C	
DEPTH TO GRO									
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	=	1.45	<u> </u>			
CASING DIAME	ETER 2	_IN.							
ONE STANDING	WELL VOLUM	1E =	gal.						
(NOTE $\frac{1}{2}$ " = 0.01	.02G/FT: ¾" = 0.	023 G/FT: 1	"= 0.041G/F	T: 2" = 0.16	3 G/FT: 4"=	= 0.653 G/F]	T: 6" = 1.46 (G/FT)	
THREE STANDI	NG WELL VOL	UMES =	<u> 133</u>	FIVE ST	ANDING W	ELL VOLU	MES =	77.5	_
METHOD OF W									
TOTAL VOLUM	E OF WATER R	EMOVED:		<u>, 5</u>	GAL. FLO	W RATE_	200	mL/min	1
WELL TYPE: (FLUSH MOUNT	:7above	GRADE			COMM	ENTS		
LOCKING CAP	AND DESCRIPTION OF THE PARTY OF	Y]	ES X	NO			<u></u>		
PROTECTIVE PO	OST/ABUTMEN	T Y	ES	NO	ζ				
NONPOTABLE I	LABEL	Y	ES <u>X</u>	NO					
ID PLATE		Y	ES X	NO					
WELL INTEGRI	FY SATISFACT(ORY YI	ES X	NO					
WELL YIELD	LOW	_MODERA	TE	HIGH					
Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP		2 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Purge Time (in minutes)	Groundwater	Ηq	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Note	S
Initial Reading	7,96	2.52	0,607	50	0.67	22.51	-171		. CI
932	8101	6.97	0.437	6.1	0.21	21.48		Lowe	1/4
437		691	0,428		0	21.44	-123		
947	8,02	1. 95	VI140	5.0	_		-11/		
112.	0,02	9(1)	0,719	370	0	21-30	-16		
			-			•	<u></u>		
						<u> </u>			
									
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	NUMBER							
SITE NAME Duk								udve 73°
FIELD PERSONN	VEL TLH & SS			v	VEATHER (CONDITION	IS <u>(10</u>	udy 15
moment mant in		10.05	ייים אייים ל	- 1 /	44 / 7.3	1 1		• •
TOTAL WELL D	•		•		=		=	ŕ
SCREENED INTI				MEASUR	ING POINT	FOR DEPT	H <u>TO</u>	<u>C</u>
DEPTH TO GROULENGTH OF WA	UNDWATER (DO	3W)	1/8 2	フ	<u> 7 2 </u>			
			WD – DGW	=	<i>J</i> <u>J</u>		_	
CASING DIAME ONE STANDING	TER <u>2</u>	_IN.	50					
(NOTE $\frac{1}{2}$ " = 0.01							fren.	
THREE STANDE				- C				<u>r </u>
METHOD OF WI							_	
TOTAL VOLUMI		The state of the s	The state of the s	5(GAL. FLO		•	
WELL TYPE:	FLUSH MOUNT	The Real Property lies, the Party lies, the Pa				COMM	ENTS	
LOCKING CAP				NO				
PROTECTIVE PO)ST/ABUTMENT	Γ YF	∃S	NOX	<u>-</u>	 		
NONPOTABLE L	ABEL	YI	ES <u>X</u>	NO		<u> </u>		
ID PLATE		YF	ES <u>X</u>	NO				
WELL INTEGRIT				NO		-		
WELL YIELD	LOW	MODERA'	TE	HIGH				
Elapsed Purge Time	Depth to	рН	Cond.	Turbidity	Dis. O2	Temp	ORP	Notes
(in minutes)	Groundwater	PAA	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	11715
Initial Reading	15.1	6.49	0.48	3.0	1.85	21-69	137	
733	15/1	6.44	0.475	5.8	1.65	21.30	151	
738	15.1	6.43	0.476	4.7			155	
743	15.1	6.43	0,476	1	1.54			
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AMEC PROJECT NUMBER	6228-12-0021	MONITO	RING WEL	L NUMBER		
SITE NAME <u>Duke Energy-Spartan</u>						
FIELD PERSONNEL TLH & SS			WEATHER (CONDITION	s Cloud	ly 73°
						/
TOTAL WELL DEPTH (TWD)	31.5 FT.	(measured / w	ell tag / drille	ers log/ previo	ous report – c	ircle one)
SCREENED INTERVAL	26.5-31.5	MEASUF	RING POINT	FOR DEPT	HH	C
DEPTH TO GROUNDWATER (DO	3W) <u>14,4</u>	18	~ ^ ~			
LENGTH OF WATER COLUMN (LWC) = TWD - DG'	W =/	102		_	
CASING DIAMETER 2	_IN.					
ONE STANDING WELL VOLUMI	$E = \frac{2.72}{\text{gal}}$		-			
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.01						· •
THREE STANDING WELL VOLU					•	3.95
METHOD OF WELL EVACUATION	ON: BAILER / C	UMP) OTHER	.: TYF	PE <u>Peri-Pu</u>	mp	<u> </u>
TOTAL VOLUME OF WATER RE			GAL. FLO	W RATE		mL/min
WELL TYPE: FLUSH MOUNT	/(ABOVE GRADE)			COMMI	ENTS	
LOCKING CAP	YES X	NO				
PROTECTIVE POST/ABUTMENT	YES	NO	X			
NONPOTABLE LABEL	YES X	NO	············			
ID PLATE	YES X	NO	 			
WELL INTEGRITY SATISFACTO						
WELL YIELD LOW	MODERATE	HIGH				
Elapsed Depth to	Cond	Turbidity	Dis, O ₂	Temp	ORP	
Purge Time Groundwater	pH (μS/cm)) (NTU)	(mg/L)	(°C)	(mV)	Notes
8 Initial Reading 14.68	6.8 0.29	4 4.5	1.46	20.68	30	
813 14.72	7,100,22	8 20	2045	20.09	-49	
818 14.72	7.18 0.22	4 16	0,25	19,91	-66	
823 14.72	7.20 0.22	0 2,0	0.17	19,98	-74	
			<u> </u>	———		



		I NUMBER							
Ş	SITE NAME <u>Du</u>	ke Energy-Spartar	nburgD	ATE <u> 7-3(</u>	-13	TIME OF SA	AMPLE	1535	
		NEL <u>TLH & SS</u>						15 85°	Cloudy
									/
-	TOTAL WELL D	DEPTH (TWD)	15.15	FT. (1	measured / we	ell tag / drille	ers log/ previ	ous report – c	circle one)
		ERVAL			MEASUR	ING POINT	FOR DEPT	Ή <u>ΤΟ</u>	C
		UNDWATER (D							
I	LENGTH OF WA	ATER COLUMN ((LWC) = T	WD – DGW	=	1.85			
(CASING DIAME	TER 2	TN.						
(ONE STANDING	WELL VOLUM	E =	TI gal.					
		$02G/FT: \frac{3}{4}$ " = 0.0							
7	THREE STANDI	NG WELL VOLU	JMES =	5.8	FIVE ST.	ANDING W	ELL VOLUI	MES =	1.7
N	METHOD OF W	ELL EVACUATION	ON: BA	AILER PUI	MP OTHER		PE <u>Peri-Pu</u>		· .
7	TOTAL VOLUM	E OF WATER RE	EMOVED:	<u> </u>	5(GAL. FLO	W RATE	150	mL/min
7	WELL TYPE: (FLUSH MOUNT	ABOVE	GRADE			COMM	ENTS	
I	OCKING CAP	AND THE PERSON NAMED IN COLUMN TWO IS NOT THE PERSON NAMED IN COLUMN TWO IS NAMED IN THE PERSON NAMED IN COLUMN TWO IS NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERSON NAMED IN THE PERS	YI	ES X	NO				
F	PROTECTIVE PO	OST/ABUTMENT	YI YI	ES	NOX	<u> </u>			
N	NONPOTABLE I	LABEL			NO				
I	D PLATE				NO				
V	VELL INTEGRI	TY SATISFACTO			NO				
V	VELL YIELD	LOW							
	Elapsed			(100) - 100					(A. J. T. C. S. S. S. S. S. S. S. S. S. S. S. S. S.
	Purge Time	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	and the second s	Notes
	(in minutes)				(A10)	(Lingus)		(mV)	
1515	Initial Reading	3,3	4.26	0,0	530	8.2	28.47	99	
<i></i>	1520	3.3	6.64	0,303	24,3	0.26	26.24	-64	
	1525	3, 3	6.62	5.301	13.0	0.04	26.2	-68	
	1530	3,3	662	0,300	4,5	0	26.14		
				-				***	
					-				



STITE NAME Duke Energy-Spartanburg DATE 7-3 13 TIME OF SAMPLE 1/15	T CTATA TALENTAL TO	ouke Energy-Sparta	nburg I	DATE 7- 3:	-13	TIME OF S.	AMPLE	1):15	
TOTAL WELL DEPTH (TWD) 14.88 FT. (measured / well tag / drillers log/ previous report - circle one) SCREENED INTERVAL 4.44-14.88 MEASURING POINT FOR DEPTH TOC DEPTH TO GROUNDWATER (DGW) 3.15 LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 16.93 CASING DIAMETER 2 IN. ONE STANDING WELL VOLUME = 1.8 gal. (NOTE %" = 0.0102G/FT: %" = 0.023 G/FT: 1" = 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT) THREE STANDING WELL VOLUMES = 1.4 FIVE STANDING WEL		· -	-	Ÿ) 75
WELL INTEGRITY SATISFACTORY YESX	TOTAL WELL SCREENED IN DEPTH TO GR LENGTH OF W CASING DIAM ONE STANDIN (NOTE ½" = 0.0 THREE STAND METHOD OF W TOTAL VOLUM WELL TYPE: LOCKING CAP PROTECTIVE I	DEPTH (TWD) _ TERVAL_ OUNDWATER (I VATER COLUMN IETER 2 IG WELL VOLUM 0102G/FT: ¾" = 0. DING WELL VOLUM WELL EVACUATI ME OF WATER R FLUSH MOUNT POST/ABUTMEN	14.88 4.44-14.88 OGW) (LWC) = T _IN. ME = 023 G/FT: UMES = ION: B EMOVED: ABOVE Y T Y	FT. (3 3.15 WD - DGW Saller PU GRADE ES ES	measured / weMEASUR	ell tag / drille ING POINT 2. 4 3 3 G/FT: 4"= ANDING W : TYF GAL. FLC	ers log/ previdence log/ FFOR DEPT = 0.653 G/FT ELL VOLUI PE <u>Peri-Pu</u> DW RATE	ous report — C TH TO T: 6" = 1.46 (MES =	circle one) G/FT)mL/min
WELL INTEGRITY SATISFACTORY YESX	NONPOTABLE		Y	ES X	NO				
WELL YIELD LOW MODERATE HIGH		TTV CATICEACTA					-		
Elapsed Depth to PH Cond. Turbidity Dis. O ₂ Temp ORP Notes	WELLINIEGK	TII SAHSFACH	JKY Y	ES <u>X</u>	NO				
Purge Time (in minutes) Depth to Groundwater pH Cond. (μS/cm) Turbidity (NTU) Dis. O ₂ (mg/L) Temp (mg/L) ORP (mV) Notes 17 Initial Reading 3.15 6.11 0.135 35.5 1.41 23.48 101 11:02 3.15 5.71 0.045 19.0 0.70 28.93 145	WELL YIELD	LOW	MODERA	TE .	нісн.				
Initial Reading 3.15 6.11 0.135 35.5 1.41 23.48 101 11:02 3.15 5.71 0.095 19.0 0.70 28.93 145	giania afron an anno anno anno an anno an		_MODERA						- December 1
11:02 3.15 5.71 0.095 19.0 0.70 28.93 145	Elapsed Purge Time	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	TO NEW YORK ASSOCIATION OF THE PROPERTY OF THE	Notes
	Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (juS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	(m V)	Notes
	Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3.15	PH	Cond. (µS/cm)	Turbidity (NTU) 35.5	Dis. O ₂ (mg/L)	Temp (°C')	(mV)	Notes
	Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3.15	6-11 5.7	Cond. (μS/cm) 0.135 0.045	Turbidity (NTU) 35.5	Dis. O ₂ (mg/L) J. 4 ₁ o. 70	Temp (°C) g3.4° 28.93	(mV) 01 45	Notes
	Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3.15	6-11 5.7	Cond. (μS/cm) 0.135 0.045	Turbidity (NTU) 35.5	Dis. O ₂ (mg/L) J. 4 ₁ o. 70	Temp (°C) g3.4° 28.93	(mV) 01 45	Notes
	Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3.15	6-11 5.7	Cond. (μS/cm) 0.135 0.045	Turbidity (NTU) 35.5	Dis. O ₂ (mg/L) J. 4 ₁ o. 70	Temp (°C) g3.4° 28.93	(mV) 01 45	Notes
	Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3.15	6-11 5.7	Cond. (μS/cm) 0.135 0.045	Turbidity (NTU) 35.5	Dis. O ₂ (mg/L) J. 4 ₁ o. 70	Temp (°C) g3.4° 28.93	(mV) 01 45	Notes
	Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3.15	6-11 5.7	Cond. (μS/cm) 0.135 0.045	Turbidity (NTU) 35.5	Dis. O ₂ (mg/L) J. 4 ₁ o. 70	Temp (°C) g3.4° 28.93	(mV) 01 45	Notes
	Elapsed Purge Time (in minutes) Initial Reading	Depth to Groundwater 3.15	6-11 5.7	Cond. (μS/cm) 0.135 0.045	Turbidity (NTU) 35.5	Dis. O ₂ (mg/L) J. 4 ₁ o. 70	Temp (°C) g3.4° 28.93	(mV) 01 45	Notes



	Vales Deserves Consut	1	samo a ≼l	10	mn en en e		12:00	
	Ouke Energy-Spart NNEL <u>TLH & S</u>						VS overcas	ł Ao*
	THILD I I I I W.	ຼີ່		·	WEATHER	COMDITION	12 00 51 220	-
TOTAL WELL	DEPTH (TWD) _	35.05	FT (measured / we	ell tag / drill	ers los/ previ	ous report of	rolo ono)
	TERVAL							•
	OUNDWATER (1				ario I on i	I I OICDLA I	100	, , , , , , , , , , , , , , , , , , , ,
	VATER COLUMN			<u> </u>	56			
	IETER <u>2</u>							
ONE STANDIN	IG WELL VOLUI	ME =	5 gal.					
(NOTE ½" = 0.	0102G/FT: ¾" = 0	0.023 G/FT:	1"= 0.041G/F	T: 2" = 0.163	3 G/FT: 4":	= 0.653 G/FT	T: 6" = 1.46 G	/FT)
	DING WELL VOL							
	WELL EVACUAT		_					<i></i>
	ME OF WATER F							mL/min
	FLUSH MOUN						ENTS	
LOCKING CAL		Y	ES X	NO				
PROTECTIVE	POST/ABUTMEN	NT Y	ES	NOX	ζ			
NONPOTABLE	LABEL	Y	ES X					
NONPOTABLE ID PLATE	LABEL		ES X ES X	NO				
ID PLATE	LABEL ITY SATISFACT	Y		NO				
ID PLATE WELL INTEGR		Y ORY Y	ES X	NO NO				
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time	JTY SATISFACT LOW Depth to	Y ORY Y _MODERA	ES X	NO NO		Temp (°C')	ORP (mV)	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed	ITY SATISFACT LOW Depth to Groundwater	Y ORY Y _MODERA	ES X ES X TE Cond.	NO NO NO HIGH Turbidity (NTU)	Dis: O ₂		(mV)	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time (in minutes)	ITY SATISFACT LOW Depth to Groundwater 3 4.92	Y ORY Y _MODERA	ES X ES X TE Cond. (µS/cm) 0.263	NO NO NO HIGH Turbidity (NTU)	Dis: O ₂ (mg/L)	(°C)	(mV) 35	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time (in minutes) Initial Reading	JTY SATISFACT LOW Depth to Groundwater 4.92 4.91	Y ORY Y _MODERAPHG.03	ES X ES X TE Cond. (µS/cm) 0.263	NO NO NO HIGH Turbidity (NTU)	Dis: O ₂	(°C) 23.66 22.63	(mV) 35 31	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ITY SATISFACT LOW Depth to Groundwater 3 4.92	Y ORY Y _MODERA	ES X ES X TE	NO NO NO HIGH Turbidity (NTU)	Dis. O ₂ (mg/L) 2.42 0.94	(°C)	(mV) 35	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time (in minutes) Initial Reading	JTY SATISFACT LOW Depth to Groundwater 4.92 4.91	Y ORY Y _MODERA	ES X ES X TE	NO NO NO HIGH Turbidity (NTU)	Dis. O ₂ (mg/L) 2.42 0.94	(°C) 23.66 22.63	(mV) 35 31	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time (in minutes) Initial Reading	JTY SATISFACT LOW Depth to Groundwater 4.92 4.91	Y ORY Y _MODERA	ES X ES X TE	NO NO NO HIGH Turbidity (NTU)	Dis. O ₂ (mg/L) 2.42 0.94	(°C) 23.66 22.63	(mV) 35 31	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time (in minutes) Initial Reading	JTY SATISFACT LOW Depth to Groundwater 4.92 4.91	Y ORY Y _MODERA	ES X ES X TE	NO NO NO HIGH Turbidity (NTU)	Dis. O ₂ (mg/L) 2.42 0.94	(°C) 23.66 22.63	(mV) 35 31	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time (in minutes) Initial Reading	JTY SATISFACT LOW Depth to Groundwater 4.92 4.91	Y ORY Y _MODERA	ES X ES X TE	NO NO NO HIGH Turbidity (NTU)	Dis. O ₂ (mg/L) 2.42 0.94	(°C) 23.66 22.63	(mV) 35 31	Notes
ID PLATE WELL INTEGR WELL YIELD Elapsed Purge Time (in minutes) Initial Reading	JTY SATISFACT LOW Depth to Groundwater 4.92 4.91	Y ORY Y _MODERA	ES X ES X TE	NO NO NO HIGH Turbidity (NTU)	Dis. O ₂ (mg/L) 2.42 0.94	(°C) 23.66 22.63	(mV) 35 31	Notes



AMEC PROJEC	T NUMBER	6228-12-	0021	MONITO	DRING WE	LL NUMBEF	<u>MW-19S</u>	
	ike Energy-Sparta							
FIELD PERSON	NEL <u>TLH & S</u>	<u>S</u>		· · · · · · · · · · · · · · · · · · ·	WEATHER	. CONDITIO	VS Overcas	it high 70's
	DEPTH (TWD) _							
SCREENED INT	ERVAL	5-15		MEASUI	RING POIN	T FOR DEPT	THTO	C
	OUNDWATER (E							
LENGTH OF WA	ATER COLUMN	(LWC) = 7	TWD – DGW	' = <u>7.</u>	<u> </u>		_	
	ETER <u>2</u>		1.7					
ONE STANDING	G WELL VOLUM	IE =	(gal.					
(NOTE $\frac{1}{2}$ " = 0.01	$102G/FT: \frac{3}{4}$ " = 0.	023 G/FT:	1"= 0.041G/I	FT: 2" = 0.16	3 G/FT: 4"	= 0.653 G/F]	: 6" = 1.46 C	G/FT)
THREE STAND	ING WELL VOL	UMES = _	3,4	FIVE ST	'ANDING V	VELL VOLU	$MES = \underline{5}$	r8
METHOD OF W	ELL EVACUATI	ON: E	BAILER (PU	MP) OTHER	TY.	PE <u>Peri-Pı</u>	ımp	
TOTAL VOLUM				5	GAL. FLO	OW RATE	140	mL/min
WELL TYPE: (FLUSH MOUNT	JABOVE	GRADE			COMM	ENTS 5to	orm water
LOCKING CAP		Y	YES X	NO		Pon	ting in 1	wells outer casi
PROTECTIVE PO	OST/ABUTMEN'	ΓΥ	ES	NO	ζ			
NONPOTABLE I	LABEL	Y	YES X	NO				
ID PLATE			YES X				<u> </u>	
WELL INTEGRI	TY SATISFACTO	DRY Y	ES X	NO				
WELL YIELD	LOW	MODERA	ATE	HIGH				
Elapsed	Depth to	Total Services	Cond,	Turbidity	Dis. O ₂	Temp	ORP	
Purge Time (in minutes)	Groundwater	pН	(µS/cm)	The state of the s	(mg/L)	the first term of the control of the	(mV)	Notes
Initial Reading	8.05	6.43	0,523	143	1.59	22.52	/1	
9:45	8.05	6.30	0.525	144	0.94	22.20	3.5	
9:50	8.05	4.36	0.516	128	0.60	27.06	<i>3</i> 8	
						ļ		
						 		
	·							
					<u> </u>			



TOTAL SCREEN DEPTH LENGTH CASING ONE STA (NOTE 1/2 THREE S METHOD TOTAL V WELL T LOCKIN PROTEC NONPOT ID PLAT WELL IN WELL IN WELL YI Flat Purge (in mi	C PROJEC	T NUMBER	6228-12-0	021	MONITO	RING WEI	L NUMBER	OS-5N	
TOTAL SCREEN DEPTH LENGTH CASING ONE STA (NOTE // THREE S METHOD TOTAL V WELL T LOCKING PROTEC NONPOT ID PLAT WELL IN WELL IN WELL IN WELL YI Flat Purge (in mi	NAME <u>Du</u>	<u>ke Energy-Sparta</u>	nburg D	ATE 7- 3	o -13	TIME OF S	AMPLE	11:34	
TOTAL SCREEN DEPTH LENGTH CASING ONE STA (NOTE 1/ THREE S METHOD TOTAL V WELL T LOCKING PROTEC NONPOT ID PLAT WELL IN WELL IN WELL IN WELL YI Flat Purge (in mi Initial I) 11:4		NEL TLH							mid 80's
WELL IN WELL YI Ela) Purge (in mi Initial I 11:4	L WELL I ENED INT H TO GRO TH OF WA NG DIAME STANDING E ½" = 0.01 E STANDI HOD OF WI L VOLUM TYPE: ING CAP ECTIVE PO OTABLE I	DEPTH (TWD) PERVAL DUNDWATER (DATER COLUMN (DETER2	13 8-13 GW)	FT. (5.9 WD - DGW 994 gal. "= 0.041G/I 2.99 AILER PUT GRADE ES X ES X	measured / weMEASUR	ell tag / drill RING POINT B G/FT: 4": ANDING W : TYI GAL. FLC	ers log/ previo	c: 6" = 1.46 e MES = 4 mp	G/FT)
WELL YI Ela Purge (in mi Initial I II:				ES X	NO				
Elay Purge (in mi		ΓΥ SATISFACTO			No				
Purge (in mi	- see a see Florida a dame o e e e	LOW	MODERA'	ΓE	HIGH_		_		
11:4	lapsed rge Time minutes)	Depth to Groundwater	рĦ	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
11:1	ial Reading	٦.3	6,49	0.544	8.8	4.29	26.39	132	The first of the second
11:3	1:19	7.15	6.41	0.554	4. ۶	3.27	25.83	149	
	1: 24	7.15	6.40	0.565	3.3	3.11	25.62	154	
#12	1:29	7.15	6.40	0.570	2.5	2.78	25,55	156	
	<u> </u>							•	
						·			
								- -	
<u> </u>									



	AMEC PROJECT	Γ NUMBER	6228-12-0	021	MONITO	RING WEL	L NUMBER	5e OS- 10 0E	
		ke Energy-Spartar							
		NEL TLH							mid 80's
S I I ((SCREENED INT DEPTH TO GRO LENGTH OF WA CASING DIAME DNE STANDING NOTE ½" = 0.01	DEPTH (TWD) ERVAL_ FUNDWATER (DO ATER COLUMN (ETER 2 G WELL VOLUM 02G/FT: ¾" = 0.0 NG WELL VOLU	8-13 GW) LWC) = T IN. E =0.9. 23 G/FT: 1	7. ⋄ WD – DGW 78 gal. "= 0.041G/F	MEASUR = 6.0	ING POINT	FOR DEPT	TO TOC	/FT)
N	METHOD OF W	ELL EVACUATIO	ON: B	AILER/QUI	MP OTHER				
1	TOTAL VOLUM	E OF WATER RE	MOVED:	2.9.39	(GAL. FLO	W RATE	100	mL/min
1	WELL TYPE:	FLUSH MOUNT	ABOVE	GRADE			COMM	ENTS	
Ι	OCKING CAP		Y	ES X	NO				
F	ROTECTIVE PO	OST/ABUTMENT	Y	ES	NOX	<u> </u>			
N	NONPOTABLE I	LABEL	Y	ES X	NO		- · 		
I	D PLATE		Y	ES X	NO	·			
V	VELL INTEGRI	TY SATISFACTO	RY YI	ES X	NO				
V	VELL YIELD	LOW	MODERA	TE	HIGH _				
	Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C')	ORP (mV)	Notes
0:00	Initial Reading	7.48	6.94	0.497	2.2	6.60	25.40	92	
	10:05	7.48	7.07	0.613	2.3	6.66	25.16	169	
	10:10	7.48	7.67	0.655	3.3	6.05	25.06	112	
					-				
		-			-				
				- ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '					
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AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OS

SITE NAME Du	ike Energy-Sparta	<u>nburg</u> I	DATE 7- 3	13 TIM	IE OF SAM	PLE 9:10	D		
FIELD PERSON	NEL TLH				WEATHER	CONDITIO	NS Sunny	FFF low	8° 's
TOTAL WELL I	ERVAL	8-13		(measured / w MEASUI	ell tag / dril RING POIN	lers log/ prev IT FOR DEP	ious report – c ΓΗ <u>ΤΟ</u>	circle one)	
DEPTH TO GRO	`	/	·		 _				
LENGTH OF WA		· ·	TWD – DGW	/= 6.2			_		
CASING DIAME			al .						
ONE STANDING									
(NOTE ½" = 0.01 THREE STANDI	NG WELL VOL	J23 G/F1; . iTMBS =	1″= 0.041G/. ろ . のろ	FT: 2" = 0.16	3 G/FT: 4"	= 0.653 G/F	$\Gamma: 6" = 1.46 \text{ C}$	G/FT) 05	
METHOD OF W								·	
TOTAL VOLUM						PE <u>Peri-P</u>	ump		
WELL TYPE:	FLUSH MOUNT	ABOVE.	GRADE		GAL, FL				
LOCKING CAP		N		NO		COMIN	EN15		
PROTECTIVE PO	OST/ABUTMEN			NO					
NONPOTABLE I	LABEL			NO					
ID PLATE				NO					
WELL INTEGRIT	ΓΥ SATISFACT(NO				·	
WELL YIELD 1	LOW								
Elapsed Purge Time (in minutes)	Depth to Groundwater	PH	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes	
Initial Reading	6.06	6.71	0.725	8.7	3.63	24.13	145	The American State of the State	10000
8153	6.95	6.40	0.329	6.8	2.40	24.04	131		
Q: 5 g	6.47	6.89	0.347	7.3	2.47	2.3.88	120		
9:03	6.97	6.86	Ø ·356	6.5	2.07	23.75	(13		
9:08	6.97	6.87	0.354	7.0	1.66	23.65	#D9		
					_				
	J	l				1			$\overline{}$



4	AMEC PROJEC.	I NUMBER	6228-12-00	021	MONITO	DRING WEL	L NUMBER	. <u>OR-3W</u>	
5	SITE NAME <u>Du</u>	ke Energy-Spartaı	<u>iburg</u> D	ATE <u>7- 37</u>	O ₋₁₃	TIME OF S.	AMPLE	1225	
]	FIELD PERSON	NEL TLH & SS	3			WEATHER	CONDITIO	vsフ	9 Partly Clo
- -	FOTAL WELL D	DEPTH (TWD)	23	BFT. (measured / w	ell tag / drille	ers log/ previ	ous report –	circle one)
		ERVAL							*
I	DEPTH TO GRO	UNDWATER (D	GW)	8.70	5				
I	LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	r = 14,	24			
(CASING DIAME	ETER2	IN.			•			
(ONE STANDING	WELL VOLUM	E = 2	, 3 3 gal.					
(NOTE ½" = 0.01	02G/FT: ¾" = 0.0)23 G/FT: 1	"= 0.041G/	FT: 2" = 0.16	3 G/FT: 4"=	= 0.653 G/FT	T: 6" = 1.46	G/FT)
	THREE STANDI	NG WELL VOLU	JMES =	6.99	FIVE ST	ANDING W	ELL VOLU	MES = I	1.65
		ELL EVACUATION							
7	TOTAL VOLUM	E OF WATER RE	EMOVED:		_5	GAL. FLC	W RATE	200	mL/min
		FLUSH MOUNT			, —				ter level wa
. I.	OCKING CAP		YJ	ES X	NO		not v	vorking.	Flow rate a
F	PROTECTIVE PO	OST/ABUTMENT			NO		200 ,	nVmin u	as used on 4
1	NONPOTABLE I	LABEL			NO				flow rate tool
I	D PLATE				NO				V
V	VELL INTEGRI	TY SATISFACTO			NO				
V	VELL YIELD	LOW			/				
	Elapsed		100 (100 (100)	(1.5) (1.5) (1.5) (1.5) (1.5)				102 (60, 26,)	
	Purge Time	Depth to Groundwater	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
1765	(in minutes)		Co.			A CONTRACTOR OF THE CONTRACTOR		- i	
1208	Initial Reading	NM	6.18	19.4	11.5	6.21	30.12	457	
	1213		6.65	21,0	9,5	8,73			
	1218		6.60	21/3	8,8	9,05	27.65	370	
	1223	V	6.57	22,6	8,8	10.47	27.62	368	
		Instrument							
		Instrument Not Working							
		,							



	T NUMBER						R <u>OR-5W</u>	
SITE NAME D	uke Energy-Sparta	ınburg I	DATE 7-3	D-13	TIME OF S	AMPLE	1110	
FIELD PERSON	NEL TLH				WEATHER	CONDITIO	NS_7	Synny
								1
TOTAL WELL	DEPTH (TWD) _	24	FT. (measured / w	ell tag / drill	ers log/ prev	ious report –	circle one)
SCREENED IN	TERVAL	19-24	_	MEASUI				DC
	OUNDWATER (I				- d			
LENGTH OF W	ATER COLUMN	(LWC) = T	WD – DGW	" = K	5.35		_	
	ETER 2	 '	ه . هندس					
	G WELL VOLUM		Take To the Control of the Control o					
(NOTE $\frac{1}{2}$ " = 0.0	$102G/FT: \frac{3}{4}" = 0.$	023 G/FT:	1"= 0.041G/J	FT: 2" = 0.16	3 G/FT: 4"	= 0.653 G/F	$\Gamma: 6" = 1.46$	G/FT)
THREE STAND	ING WELL VOL	UMES = _	2.54	FIVE ST	ANDING W	ELL VOLU	MES =	12.6
METHOD OF W	ELL EVACUATI	ION: B	AILER ÆU	MP/OTHER	: TYI	PE <u>Peri-P</u>	ump	
	IE OF WATER R			5	GAL. FLC	OW RATE	200	mL/min
WELL TYPE:	FLUSH MOUNT	/ABOVE	GRADE			1	ENTS	
LOCKING CAP			ES X	NO		wate.	1 level v	was not worki
	OST/ABUTMEN	T Y	ES	NO	ζ	Floy	crate o	f. 200 ml/mi
NONPOTABLE	LABEL	Y	ES X	NO	·			4-23-13 30
ID PLATE	Mg.		ES X	NO	···	used	that FI	ow rate toda
	TY SATISFÀCTO			NO			·	
WELL YIELD	LOW	_MODERA	TE	HIGH				
Elapsed Purge Time	Depth to	рН	Cond.	Turbidity	Dis. O2	Temp	ORP	
(in minutes)	Groundwater	1	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes
Initial Reading	NM	4.85	0.003	3311	(2,17)	4	of are	MARKET TO THE RESIDENCE OF SUPPLY
			3	しつシグレ	18413	31.02	576	
1055	1	3.42	8.43		0.34	31.02		
100		1	8,93	17.7	0.34	28.77	552	
1100		3,44	8.98	17.7	0.34	28.77	552	
		3,44	8,93	17.7	0.34		552	
1100	instrument	3.44 3.46	8.98	17.7	0.34	28.77	552	
1100	instrument not Working	3.44 3.46	8.98	17.7	0.34	28.77	552	
1100	instrument not Working	3.44 3.46	8.98	17.7	0.34	28.77	552	
1100	instrument not Working	3.44 3.46	8.98	17.7	0.34	28.77	552	
1100	instrument not Working	3.44 3.46	8.98	17.7	0.34	28.77	552	



Sľ	MEC PROJECT TE NAME Dul	ce Energy-Spartan	burg DA	ΛΤΕ 7- 3⁄0	-13 T	TME OF SA	MPLE	450)
	ELD PERSON		-	_	W			is 77	Sunny
SC DH LE CA ON (N TH MI TC WI	CREENED INTO EPTH TO GRO ENGTH OF WA ASING DIAME NE STANDING OTE ½" = 0.01 HREE STANDI ETHOD OF WI OTAL VOLUM ELL TYPE: OCKING CAP	EPTH (TWD) ERVAL UNDWATER (DO TER COLUMN (TER2 WELL VOLUMI 02G/FT: ¾" = 0.0 NG WELL VOLU ELL EVACUATIO E OF WATER RE FLUSH MOUNT	18.5-22.5 GW) LWC) = TV IN. E = 23 G/FT: 1 MES = ON: BA EMOVED: / ABOVE O	8 · 5 WD – DGW 5 6 gal. "= 0.041G/F 4 · 6 8 AILER PUN	MEASUR =	G/FT: 4"= ANDING W. TYP GAL. FLO	FOR DEPT - 0.653 G/FT ELL VOLUME - Peri-Pu W RATE COMMI	H TO : 6" = 1.46 C MES = mp LSO ENTS	G/FT) 7-8mL/min
NO ID WI	ONPOTABLE I PLATE ELL INTEGRI		YI YI DRY YI	ES X ES X ES X	NO		on 2	-28-13 NAS 11501	1,00 was us + Flow rate Lon 4-23-1
NO ID WI	ONPOTABLE I PLATE ELL INTEGRI	ABEL TY SATISFACTO	YI YI DRY YI	ES X ES X ES X	NO NO		on 2	-28-13	+ Flow rate
NO ID WI WI	ONPOTABLE I PLATE ELL INTEGRI ELL YIELD Elapsed Purge Time	ABEL TY SATISFACTO LOW Depth to Groundwater	YE YE ORY YE MODERA'	ES X ES X ES X FE Cond, (µS/cm)	NO NO NO HIGH (NTU)	Dis. O ₂	On 2 1-75 (Temp (°C)	-28-13 Mas 11660 ORP (mV)	+ Flow rate Lon 4-23-1
10 w w	ONPOTABLE I PLATE ELL INTEGRITE ELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ABEL TY SATISFACTO LOW Depth to	YE YE DRY YE MODERA' PH 3, 25	ES X ES X ES X TE // (µS/cm)	NO NO NO HIGH (NTU)	Dis. O ₂ (mg/L)	On 2 1-75 Temp (°C)	-28-13 MAS USE ORP (mV) 550	+ Flow rate Lon 4-23-1
10 w	DNPOTABLE I PLATE ELL INTEGRIT ELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ABEL TY SATISFACTO LOW Depth to Groundwater	YE YE ORY MODERA PH 3.25	ES X ES X ES X TE / Cond. (µS/cm) 8,35	NONONOHIGH	Dis. O ₂ (mg/L)	On 2 1-75 Temp (°C) 23.19 22.80	-28-13 MAS USE ORP (mV) 550 569	+ Flow rate Lon 4-23-1
10 W1 W2 43)	ONPOTABLE I PLATE ELL INTEGRITE ELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ABEL TY SATISFACTO LOW Depth to Groundwater	YE ORY MODERA PH 3, 25 3,14 3,15	ES X ES X ES X FE Cond. (µS/cm) 8,35 8,70 8,70	NONONOHIGH	Dis. O ₂ (mg/L) 1, 73 1, 17 0,86	Temp (°C) 23.19 22.79	-28-13 MAS USE ORP (mV) 550 569 575	+ Flow rate Lon 4-23-1
1D W	PLATE ELL INTEGRITE ELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ABEL TY SATISFACTO LOW Depth to Groundwater NR instrument	YE YE MODERA' PH 3, 25 3,14 3,15 3,12	ES X ES X ES X FE Cond. (µS/cm) 8,35 8,70 8,70	NONONONONONIGH	Dis. O ₂ (mg/L)	Temp (°C) 23.19 22.79	-28-13 MAS USE ORP (mV) 550 569 575	+ Flow rate Lon 4-23-1
1D W	PLATE ELL INTEGRITE ELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ABEL TY SATISFACTO LOW Depth to Groundwater	YE YE MODERA' PH 3, 25 3,14 3,15 3,12	ES X ES X ES X FE Cond. (µS/cm) 8,35 8,70 8,70	NONONONONONIGH	Dis. O ₂ (mg/L) 1, 73 1, 17 0,86	Temp (°C) 23.19 22.79	-28-13 MAS USE ORP (mV) 550 569 575	+ Flow rate Lon 4-23-1
1D W	PLATE ELL INTEGRITE ELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ABEL TY SATISFACTO LOW Depth to Groundwater NR instrument	YE YE MODERA' PH 3, 25 3,14 3,15 3,12	ES X ES X ES X FE Cond. (µS/cm) 8,35 8,70 8,70	NONONONONONIGH	Dis. O ₂ (mg/L) 1, 73 1, 17 0,86	Temp (°C) 23.19 22.79	-28-13 MAS USE ORP (mV) 550 569 575	+ Flow rate Lon 4-23-1
1D wing wing wing wing wing wing wing wing	PLATE ELL INTEGRITE ELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ABEL TY SATISFACTO LOW Depth to Groundwater NR instrument	YE YE MODERA' PH 3, 25 3,14 3,15 3,12	ES X ES X ES X FE Cond. (µS/cm) 8,35 8,70 8,70	NONONONONONIGH	Dis. O ₂ (mg/L) 1, 73 1, 17 0,86	Temp (°C) 23.19 22.79	-28-13 MAS USE ORP (mV) 550 569 575	+ Flow rate Lon 4-23-1
1D W	PLATE ELL INTEGRITE ELL YIELD Elapsed Purge Time (in minutes) Initial Reading	ABEL TY SATISFACTO LOW Depth to Groundwater NR instrument	YE YE MODERA' PH 3, 25 3,14 3,15 3,12	ES X ES X ES X FE Cond. (µS/cm) 8,35 8,70 8,70	NONONONONONIGH	Dis. O ₂ (mg/L) 1, 73 1, 17 0,86	Temp (°C) 23.19 22.79	-28-13 MAS USE ORP (mV) 550 569 575	+ Flow rate Lon 4-23-1



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OR-3S	
SITE NAME <u>Duke Energy-Spartanburg</u> DATE 7-30-13 TIME OF SAMPLE 1335	
FIELD PERSONNEL TLH WEATHER CONDITIONS \$100 \(\textsquare{L} \)	loudy
	/
TOTAL WELL DEPTH (TWD) 24.5 FT. (measured / well tag / drillers log/ previous report – circle one	·)
SCREENED INTERVAL 19.5-24.5 MEASURING POINT FOR DEPTH TOC	
DEPTH TO GROUNDWATER (DGW) 8,26	
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{16.24}{}$	
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = 2.66 gal.	
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)	
THREE STANDING WELL VOLUMES = $\frac{7.98}{13.3}$ FIVE STANDING WELL VOLUMES = $\frac{13.3}{3}$	
METHOD OF WELL EVACUATION: BAILER / PUMP / OTHER: TYPE Peri-Pump	
TOTAL VOLUME OF WATER REMOVED: 705 . 5 GAL. FLOW RATE 200 ml	/min
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS	
LOCKING CAP YES X NO Water level v	uas Not
PROTECTIVE POST/ABUTMENT YES NO X WORKING . VSad	
NONPOTABLE LABEL YES X NO On 4-23-13	
ID PLATE YES X NO	
WELL INTEGRITY SATISFACTORY YES X NO	
WELL YIELD LOWMODERATEHIGH	
Elapsed Depth to Good, Turbidity Dis Oc Temp ORP	
Purge Time (in minutes) Depth to Groundwater	Notes
	TO THE PARTY OF TH
133 14 15 15 17 17 17 17 17 17 17 17 17 17 17 17 17	
1320 6.61 5.77 3.3 6.64 28.89 315	
1325 6.61 4.18 1.1 6.39 28.83 309	·
1330 1 6.61 4.15 1.3 6.32 28.78 301	
Instrument Not Working	
Not Working	

1315



			•	OR-5S	
SITE NAME <u>Duke Energy-Spartanbur</u>	g DATE 7- 34	2-13 TIME	OF SAMPLE	1430	
FIELD PERSONNEL TLH		WEAT	HER CONDITION	s <u>82°</u>	Cloudy
					/
TOTAL WELL DEPTH (TWD) 25	FT. (1	measured / well tag	/ drillers log/ previo	us report – ci i	rcle one)
SCREENED INTERVAL 20-			POINT FOR DEPTI	HTOC	<u> </u>
DEPTH TO GROUNDWATER (DGW			_		
LENGTH OF WATER COLUMN (LW	/C) = TWD – DGW	= 16.59			
CASING DIAMETER 2 IN					
ONE STANDING WELL VOLUME =					
(NOTE 1/2" = 0.0102G/FT: 3/4" = 0.023					
THREE STANDING WELL VOLUME			NG WELL VOLUM	1ES =	3,6
METHOD OF WELL EVACUATION:		-	TYPE <u>Peri-Pu</u>		
TOTAL VOLUME OF WATER REMO	oved: 45	GAL.	FLOW RATE	200	mL/min
WELL TYPE: FLUSH MOUNT A	BOVE GRADE		СОММЕ		
LOCKING CAP	YES X	NO	Wate	r level	was not i
PROTECTIVE POST/ABUTMENT	YES	NO <u>X</u>	Flou	1 rute a	red on
MOMBOUR PRINT COMM					/ k
NONPOTABLE LABEL	YES X	NO	_ was	200 ml/	min sou
NONPOTABLE LABEL ID PLATE		NO	_	/	
	YES X		that	/	
ID PLATE	YES <u>X</u> YES <u>X</u>	NO	that	/	
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMO ElapsedMO	YES X YES X DDERATE	NO NO HIGH		FlowY	
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMO Elapsed Depth to Groundwoter	YES <u>X</u> YES <u>X</u>	NO NO HIGH Turbidity	that	/	
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMO Elapsed Depth to Groundwater (in minutes)	YES X YES X DDERATE Cond. pH (µS/cm)	NONO		Flow	min Sou ate today
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMC Elapsed Depth to Groundwater (in minutes) Initial Reading MM	YES X YES X DERATE X PH C μ S/cm	NONO	.O ₂ Temp g/L) (°C) 15 33.93	ORP (mV)	ate today
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMO Elapsed Depth to Groundwater (in minutes) Initial Reading ///// (A)	YES X YES X DERATE X Cond. $\mu H \qquad (\mu S/cm)$ $(48 1.73$	NONONONONONONONONONONONO		ORP (mV) 364 334	ate today
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMO Elapsed Depth to Groundwater (in minutes) Initial Reading ///// (A)	YES X YES X DERATE X Cond. $\mu H \qquad (\mu S/cm)$ $(48 1.73$	NONONONONONONONONONONONO		ORP (mV) 364 339 315	ate today
WELL INTEGRITY SATISFACTORY WELL YIELD LOWMC Elapsed Depth to Groundwater (in minutes) Initial Reading MM & & & & & & & & & & & & & & & & & &	YES X YES X DERATE X PH C μ S/cm	NONONONONONONONONONONONO		ORP (mV) 364 334	ate today
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMC Elapsed Depth to Groundwater (in minutes) Initial Reading MM & & & & & & & & & & & & & & & & & &	YES X YES X DERATE X Cond. $\mu H \qquad (\mu S/cm)$ $(48 1.73$	NONONONONONONONONONONONO		ORP (mV) 364 339 315	ate today
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMO Elapsed Depth to Groundwater (in minutes) Initial Reading ///// (A)	YES X YES X DERATE X Cond. $\mu H \qquad (\mu S/cm)$ $(48 1.73$	NONONONONONONONONONONONO		ORP (mV) 364 339 315	ate today
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMC Elapsed Depth to Groundwater (in minutes) Groundwater Initial Reading MM & & & & & & & & & & & & & & & & & &	YES X YES X DERATE X Cond. $\mu H \qquad (\mu S/cm)$ $(48 1.73$	NONONONONONONONONONONONO		ORP (mV) 364 339 315	ate today
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMC Elapsed Depth to Groundwater (in minutes) Groundwater Initial Reading MM & & & & & & & & & & & & & & & & & &	YES X YES X DERATE X Cond. $\mu H \qquad (\mu S/cm)$ $(48 1.73$	NONONONONONONONONONONONO		ORP (mV) 364 339 315	ate today
ID PLATE WELL INTEGRITY SATISFACTORY WELL YIELD LOWMC Elapsed Depth to Groundwater (in minutes) Initial Reading MM & & & & & & & & & & & & & & & & & &	YES X YES X DERATE X Cond. $\mu H \qquad (\mu S/cm)$ $(48 1.73$	NONONONONONONONONONONONO		ORP (mV) 364 339 315	ate today



	T NUMBER_ uke Energy-Spartar							
	NEL_TLH&RO							st 95
		 			· · · · · · · · · · · · · · · · · · ·	001(21110)	.10	
TOTAL WELL	DEPTH (TWD)	25	FT. (1	measured / we	ell tag / drille	ers log/ previ	ous report – ci	rcle one)
	TERVAL							•
	OUNDWATER (D							
LENGTH OF W	ATER COLUMN	(LWC) = T	WD – DGW	= 14	.45			
CASING DIAM	ETER 2	_IN.				•		
ONE STANDIN	G WELL VOLUM	E = 2	.33 gal.					
(NOTE ½" = 0.0	102G/FT: ¾" = 0.0)23 G/FT: 1	"= 0.041G/F	FT: 2" = 0.16;	3 G/FT: 4"=	= 0.653 G/F]	Γ: 6" = 1.46 G	;/FT)
	ING WELL VOLU							
	ELL EVACUATION							
TOTAL VOLUM	Æ OF WATER RI	EMOVED:		-5	GAL. FLC	W RATE	90	mL/min
WELL TYPE:	FLUSH MOUNT	/ ABOVE	GRADE				ENTS	
LOCKING CAP	_			NO				
PROTECTIVE I	OST/ABUTMENT			NOX				
NONPOTABLE	LABEL			NO				
ID PLATE				NO				
WELL INTEGR	TY SATISFACTO					-		
WELL YIELD	LOW	MODERA	TE	HIGH				· · ·
Elapsed							" O'S CONTROL OF THE STREET	
Purge Time (in minutes)		рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
Initial Reading		3.85	18.9	16.1	0.35	32.4	460	
15:25	1(.08	3.61	21,2	30.7	0.13	31.37	481	
(5:30	11.09	3.58	2.2.6	5.	0.0	30.94	468	·
15:35)1.09	3.56	212.0	55.4	0,0	30.24	472	
				<u> </u>		<i>J</i> = ;		
			<u> </u>					
_								
								· · · · · · · · · · · · · · · · · · ·
			<u> </u>		<u></u>	<u> </u>		



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OS-5S

SITE NAME <u>Du</u>	ike Energy-Sparta	nburg D	ATE 7- 3	-13	TIME OF S	AMPLE	1250)	
FIELD PERSON	NEL <u>TLH</u>				WEATHER	CONDITIO	NS Overa	east m	id 80'5
SCREENED INT	DEPTH (TWD) TERVAL	8-13						•	
	OUNDWATER (D	,		·					
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	'= <u>5.5</u>	8		_ _		
	ETER 2								
	G WELL VOLUM								
	$102G/FT: \frac{3}{4}" = 0.0$			FT: $2" = 0.16$	3 G/FT: 4"	= 0.653 G/F	Γ : 6" = 1.46	G/FT)	
THREE STANDI	NG WELL VOLU					ELL VOLU	MES =	. 5 ų	
METHOD OF W	ELL EVACUATI	ON: BA		MP)OTHER		PE <u>Peri-P</u>			
	E OF WATER RI		- 1	5	GAL. FLO	OW RATE_	100	mL/n	nin
WELL TYPE:	FLUSH MOUNT	ABOVE	GRADE			COMM	ENTS		
LOCKING CAP		Yl	ES X	NO					
PROTECTIVE PO	OST/ABUTMENT	r YJ	E S	NO X	ζ				
NONPOTABLE I	LABEL	Y	ES X	NO					
D PLATE		YI	ES X	NO					
WELL INTEGRI	TY SATISFACTO	DRY YI	ES <u>X</u>	NO		<u></u>			
WELL YIELD	LOW	MODERA	TE _ <	HIGH					
Elapsed Purge Time (in minutes)	Depth to Groundwater	рĤ	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	No	tes
Initial Reading	8.3)	9.55	1.70	133	4.01	27.67	7. 1	A CONTRACTOR OF THE PARTY OF TH	te en existe in iteratur, i
12:35	8.55	9.78	2, 11	25.7	4.49	26.74	-21	 	
12:46	8.73	9.73	2.52	15.4	4.39	26.79		1 Autoc	Flow
1245	8.73	9.69	2.67	12-1	3.49	26.79	-25	COVE	1 (04)
~~~			ν, σ,	144	2/ 1	-MD-7 (	_~)	<del>                                     </del>	
								<del>                                     </del>	
								<u> </u>	
				<u> </u>				<del> </del>	
								<u> </u>	
						L			



	CT NUMBER			MONITC			OS-10S 3:55	
FIELD PERSO				-15				mid gos
					WENTILL .	CONDITIO	4D	<del>)                                    </del>
TOTAL WELL	DEPTH (TWD)	13	FT. (	measured / wo	ell tag / drille	ers log/ previ	ous report – c	circle one)
	TERVAL							
	OUNDWATER (E			···				
	VATER COLUMN			/ = <b>S.</b> (	11			
CASING DIAM	IETER 2	_IN.			-		_	
ONE STANDIN	IG WELL VOLUM	IE =	833 gal.					
(NOTE $\frac{1}{2}$ " = 0.	0102G/FT: ¾" = 0.	023 G/FT: 1	l"= 0.041G/	FT: 2" = 0.163	3 G/FT: 4"=	= 0.653 G/FT	: 6" = 1.46 (	G/FT)
THREE STANI	DING WELL VOL	JMES =	*****	2.499 FIVE ST.	ANDING W	ELL VOLUI	MES = 4	.16
METHOD OF V	WELL EVACUATI	ON: B	AILER PU	MP) OTHER	: TYP	E Peri-Pu	ımn	
TOTAL VOLU	ME OF WATER R	EMOVED:		5	GAL. FLO	W RATE	J <b>∦</b> o	mI /min
	FLUSH MOUNT				<del>-</del>		ENTS	
LOCKING CAI	•	Y.	ES X	NO		501.2.2		
PROTECTIVE	POST/ABUTMEN			NOX				
NONPOTABLE	LABEL			NO			<u> </u>	
ID PLATE				NO				
WELL INTEGR	ITY SATISFACT(			NO				
WELL YIELD	LOW						-	
Elapsed			The second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second secon	7000 F. 1000 F				
Purge Time	I PAINTHAINATAN	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp	ORP	Notes
(in minutes)		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		12.0		(°C)	(mV)	
6 Initial Reading	<u> </u>	8.29	1.09	7 2.0	2.29	21.51	29	
13:41	8.5	6.37	0.505	0,0	8.60	25.50	114	
13:46	8.5	5.70	0.489	6.0	0.17	24.26	137	
					, , , , , , , , , , , , , , , , , , ,			
					·			



AMEC PROJEC	T NUMBER	6228-12-0	021	MONITO	ORING WEL	L NUMBER	S OS-15S	
SITE NAME <u>D</u> ı	ike Energy-Sparta	nburg [	DATE 7- <b>30</b>	) -13	TIME OF S.	AMPLE	14:40	
	NEL TLH							dy 750
TOTAL WELL I	DEPTH (TWD) _	13	FT. (	measured / w	ell tag / drille	ers log/ previ	ous report – e	circle one)
	ERVAL				RING POINT	Γ FOR DEP1	TCTC	OC
DEPTH TO GRO	OUNDWATER (D	GW)	7,9					
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	<i>y</i> =	5.07			
CASING DIAME	ETER2	_IN.						
ONE STANDING	G WELL VOLUM	E =	9.82 gal.					
(NOTE $\frac{1}{2}$ " = 0.03	102G/FT: ¾" = 0.0	023 G/FT: 1	l"= 0.041G/J	FT: 2" = 0.16	3 G/FT: 4"=	= 0.653 G/FT	C: 6" = 1.46 (	G/FT)
THREE STAND	ING WELL VOLU	JMES =	2.48	FIVE ST	ANDING W	ELL VOLU	MES =	
WETHOD OF W	ELL EVACUATION	ON: B	AILER (PU	MP♪OTHER	: TYF	E Peri-Pι	ımp	
TOTAL VOLUM	E OF WATER RI	EMOVED:		65	GAL. FLC	W RATE	200	<b>b</b> _mL/min
	FLUSH MOUNT						ENTS	
LOCKING CAP		Y	ES X	NO				
PROTECTIVE PO	OST/ABUTMENT	Γ Υ.	ES	NO	ζ			
NONPOTABLE I	LABEL	Y	ES X	NO			····	
ID PLATE		Y	ES <u>X</u>	NO				
WELL INTEGRI	TY SATISFACTO	ORY Y	ES X	NO				
WELL YIELD	LOW	MODERA	TE	HIGH		_		
Elapsed Purge Time (in minutes)	Depth to Groundwater	pН	Cond, (µS/cm)	Turbidity (NTU)	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s	Temp (°C)	ORP (mV)	Notes
Initial Reading	8.5	6.60	0.503	33. 2	1.55	31.86	104	high flow rad
14:27	9.03	6.18	0.383	9.0	0.83	29.23	121	high flow rate
14:32	9,03	6.20	0.404	8.1	0.52	28.04	120	high flow cate
			, , , ,			90 1	,	711911 71111 (43)
			- ,					
L	l l							



	Γ NUMBER							
	ke Energy-Sparta					'		
FIELD PERSON	NEL <u>TLH</u>			V	VEATHER •	CONDITIO	NS over	(as 7 20% 70
TOTAL WELL F	PEPTH (TWD)	12	ET (	maganuad / www	11 to a. / das/11.	···· 1 - · / ·· · · · ·		
					-		-	,
	ERVAL UNDWATER (D					FOR DEP	IH <u>TO</u>	<u>C</u>
			-					
	ATÉR COLUMN ETER <u>2</u>		WD-DGW	=			_	
	G WELL VOLUM	<del></del>	ଜ 0					
			<del>-</del>	777 <b>61</b> 9 0 4 5 6	- C. (TOTAL)			
	$102G/FT: \frac{3}{4}$ " = 0.0							,
	NG WELL VOLU		ana ana	`				
METHOD OF WI	ELL EVACUATION OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE PROPERTY OF THE SERVICE	ON: B	AILER / PUI	MP / OTHER:	TYF	PE <u>Peri-P</u>	ump	
	E OF WATER RI	-		: ) (	BAL. FLC			
	FLUSH MOUNT					COMM	ENTS	·
LOCKING CAP		Y	ES X	NO	<del></del>			
	OST/ABUTMENT					_		
NONPOTABLE I	_ABEL			NO				<del></del>
ID PLATE				NO				
	TY SATISFACTO			-	•			
WELL YIELD	LOW	_MODERA	TE	HIGH _				
Elapsed Purge Time	Depth to	Н	Cond.	Turbidity	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s			Notes
(in minutes)	Groundwater		(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	<b>*</b>
Initial Reading	8.17	85.2	0.831	191	4.91	22.1	162	
	9.17	6.37	0.622	135	3.74	22.01	104	
7:22							<del></del>	
7:22	8.17	6.39	0.554	6B.Z	2.54	21.71	82	
		6.39	0.554	68.2	2.54	21.76	82	
		6.39	0.554	68.2	2.54	21.76	82	
		6.31	0.564	68.2	2·54	21.74	82	
		6.37	0.564	6 B. Z	2.54	21.74	82	
		6.39	0.554	68.2	2.94	21.76	82	
		6.39	0.554	6 B. Z	2.54	21.76	82	
		6.31	0.554	6 B. Z	2.54	21.74	82	



AMEC PROJECT	NUMBER	6228-12-0	021	MONITO	RING WEI	L NUMBER	OS-25S		
SITE NAME <u>Du</u>	ke Energy-Spartar	<u>nburg</u> D	ATE 7- 3	<i>1</i> ₋₁₃	TIME OF S	AMPLE	8:30		
FIELD PERSON	NEL <u>TLH</u>				WEATHER	CONDITION	IS <u>o</u>	rcost 79 Myhd	· /^\
								<i>V</i> –	
TOTAL WELL D	EPTH (TWD)	13	FT. (1	measured / we	ell tag / drill	ers log/ previ	ous report –	circle one)	
SCREENED INT				MEASUF	RING POIN	Γ FOR DEPT	H <u>T</u> (	OC	
DEPTH TO GRO	UNDWATER (D	GW)	<u>8.0</u>	5					
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD – DGW	= 4.	95		_		
CASING DIAME	TER2	_IN.							
ONE STANDING	WELL VOLUM	E =O.	gal.						
(NOTE ½" = 0.01	02G/FT: ¾" = 0.0	)23 G/FT: 1	1"= 0.041G/I	T: 2" = 0.16	3 G/FT: 4"	= 0.653 G/FT	: 6" = 1.46	G/FT)	
THREE STANDI	NG WELL VOLU	JMES =	2.425	FIVE ST	ANDING W	ELL VOLUI	MES =	1.04	
METHOD OF W			•			PE <u>Peri-Pu</u>			
TOTAL VOLUM	E OF WATER RI	EMOVED:		75	GAL. FLO	W RATE	150	mL/min	
WELL TYPE:	FLUSH MOUNT	/ABOVE	GRADE )			COMM	ENŢS		
LOCKING CAP		Y	ES_X	NO					
PROTECTIVE PO	OST/ABUTMENT	ΓY	ES	NO	ζ				
NONPOTABLE I	LABEL	Y	ES X	NO	<del></del>				
ID PLATE		Y	ES X	NO					
WELL INTEGRI	TY SATISFACTO	ORY Y	ES X	NO		<u></u>		,	
WELL YIELD	LOW	MODERA	TE	HIGH	<u> </u>				
Elapsed Purge Time (in minutes)	Depth to Groundwater	Hq	Cond. (μS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C')	ORP (mV)	Notes	
Initial Reading	8.23	6.44	0,450	68.5	2.36	21.84	-39	A ASSOCIATION OF THE PROPERTY OF	
#:16	8.23	6.39	0.381	60.0	(.35	21.66	-54		1
8:21	9.23	6.35	0.363	35.6	0.77	21.34	-64		
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									1
	•						· · · · · · · · · · · · · · · · · · ·		1
									1
		e)						·	

8:11



AMEC PROJECT NUM						2-	
SITE NAME <u>Duke Ener</u>	rgy-Spartanburg	DATE9-12	2 -13	ΓIME OF SA	MPLE	113C	)
FIELD PERSONNEL	TLH			VEATHER C	CONDITION	s_ <i>900</i>	Swany Clou
							/
TOTAL WELL DEPTH	(TWD) <u>13</u>	FT.	(measured / we	ll tag / drille:	rs log/ previo	ous report – c	ircle one)
SCREENED INTERVAL	·		MEASUR	ING POINT	FOR DEPT	HTO	C
DEPTH TO GROUNDW	VATER (DGW)	7.87		<del>7</del>			
LENGTH OF WATER C	COLUMN (LWC	() = TWD – DGV	$V = \frac{\int_{C}^{2}}{\int_{C}}$	Ĭ		_	
CASING DIAMETER _	2IN.	0.4					
ONE STANDING WELL	L VOLUME = _	<u> </u>					•
(NOTE ½" = 0.0102G/F							
THREE STANDING WI	ELL VOLUMES	= 4,55	FIVE ST.	ANDING W	ELL VOLUM	$MES = \underline{\mathcal{H}}$	125
METHOD OF WELL EV		~					
TOTAL VOLUME OF V	WATER REMOV	VED:	(	GAL. FLO	W RATE	150	mL/min
WELL TYPE: FLUSH	H MOUNT/AB	OVE GRADE	·		COMMI	ENTS	
LOCKING CAP		YES X	NO				
PROTECTIVE POST/AI	BUTMENT	YES	NOX	<u> </u>			
NONPOTABLE LABEL	,	YES X	NO			<del></del>	
ID PLATE		YES X	NO			<del>- 1,</del>	00 15
WELL INTEGRITY SAT	•		NO			5g/L	of Persulta
WELL YIELD LOW_	MOI	DERATE	HIGH		_		
Elapsed De	epth to	Cond.	Turbidity	Dis. O ₂	Temp	ORP	
	undwater ^I	·H (μS/cm)		(mg/L)	(°C)	(mV)	Notes
7 Initial Reading	1.06 4	48 5,00	784	4.87	74.91	400	
1720 8	(OX 4	68 3,36	162	7,93	24.75	386	
1233 8	(1)2	68 1.79	57.9	3,25	24.75	224	
1723 X 1726 8	AD F	64 1,72	25/6	2,37	24.69	379	
1120 2	100	1 110	75,0	3,37	200	ر مد ز	
						<del></del>	
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AMEC PROJECT NUMBER	6228-12-0021	MONITO	RING WEL	L NUMBER .	OS-5E	
SITE NAME <u>Duke Energy-Spartan</u>	<u>burg</u> DATE <u>9-1</u>	2 -13	TIME OF SA	AMPLE	1805	
FIELD PERSONNEL TLH			VEATHER (	CONDITION	s_ <b>\?</b> O°	Sunny
						1
TOTAL WELL DEPTH (TWD)	<u>13</u> FT.	(measured / we	ll tag / drille	ers log/ previo	us report – ci	rcle one)
SCREENED INTERVAL	8-13	MEASUR	ING POINT	FOR DEPT	HTO	C
DEPTH TO GROUNDWATER (DO	gw)	<i></i>				
LENGTH OF WATER COLUMN (	(LWC) = TWD - DGV	V= <u> </u>	<del>)                                    </del>		-	
CASING DIAMETER 2	_IN. O ɔ					
ONE STANDING WELL VOLUM	E = 10  gal.					
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.0						
THREE STANDING WELL VOLU						•
METHOD OF WELL EVACUATION	<del></del> -				- ·	
TOTAL VOLUME OF WATER RE		5	GAL. FLO			
WELL TYPE: FLUSH MOUNT				COMMI	ENTS	
LOCKING CAP		NO		<del></del>		
PROTECTIVE POST/ABUTMENT		NO <u>&gt;</u>				<del></del>
NONPOTABLE LABEL		NO				
ID PLATE		NO		10	- /1	
WELL INTEGRITY SATISFACTO					4/2	
WELL YIELD LOW	MODERATE	HIGH			·	2274
Elapsed Depth to	pH Cond,	Turbidity		Temp	ORP	Notes
(in minutes) Groundwater	μS/cm)	(NTU)	(mg/L)	(°C)	(mV)	
Initial Reading 2,43	6.69 0.83	122	5.47	7385	204	
	6,94 0,739			23.88	190	
8 1758 8.45	7.09 0.73	3 42.7	4.79	23.86	188	
1 1801 8,46	7.100.720	25.6	4.75	23.88	185	
		<u> </u>				



AMEC PROJECT	Γ NUMBER	6228-12-00	)21	MONITO	RING WEL	L NUMBER	OS-10E	
SITE NAME <u>Du</u>	ke Energy-Spartar							
FIELD PERSON	NEL TLH				VEATHER (	CONDITION	15 90°	Sunny
								/
TOTAL WELL D	DEPTH (TWD)	13	FT. (r	neasured / we	ell tag / drille	rs log/ previo	ous report – c	ircle one)
SCREENED INT	ERVAL	8-13		MEASUR	ING POINT	FOR DEPT	<u> ТО</u>	С
DEPTH TO GRO	UNDWATER (D	GW)	7,72	<del>- 7 -</del>				
LENGTH OF WA	ATER COLUMN	(LWC) = T	WD DGW	= <u> </u>	18		_	
	ETER 2		a /					
ONE STANDING	3 WELL VOLUM	E=	<u> </u>					
	102G/FT: ¾" = 0.0							
THREE STANDI	NG WELL VOLU	Л <b>M</b> ES =	2.50	FIVE ST	ANDING W	ELL VOLUM	$MES = \underline{\mathcal{U}}$	<u>~3</u>
METHOD OF W								
TOTAL VOLUM	E OF WATER RI	EMOVED:		5	GAL. FLO	W RATE	150	mL/min
WELL TYPE:	FLUSH MOUNT	/ ABOVE (	GRADE			COMMI	ENTS	
LOCKING CAP		YI	ES X	NO				
PROTECTIVE PO	OST/ABUTMENT	Г Ү1	ES	NO <u>&gt;</u>	<u> </u>			
NONPOTABLE I	LABEL	YI	ES X	NO				<del></del>
ID PLATE		YI	ES X	NO			600 No.	
WELL INTEGRI	TY SATISFACTO	DRY YI	ES <u>X</u>	NO				
WELL YIELD	LOW	MODERA'	ГЕ	HIGH		_		
Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	
Purge Time (in minutes)	Groundwater	# <b>pH</b>	- (μS/em)	(NTU)	(mg/L)		(mV)	Notes
Initial Reading	8,03	7.09	0.432	98.6	1.68	2290	130	
1825	8.06	6.94	1408	79.5	0.56	22.83	27	
	8.07		0,408	30,1	0,79		45	
1831	8,07	6.85	1,408	16.4	018	22,81	32	
					- 1, 5	300	<u> </u>	
		-						
				<del></del>				
							<u> </u>	



SITE NAME   Duke Energy-Spatranburg   DATE   9-12-13   TIME OF SAMPLE   1700
TOTAL WELL DEPTH (TWD) 13 FT. (measured / well tag / drillers log/ previous report - circle one)  SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH TOC  DEPTH TO GROUNDWATER (DGW) 2 4 5  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LOCKING WATER COLUMN (LWC) = TWD - DGW = 4 5 5  LOCKING CAP YES X NO  PROTECTIVE POST/ABUTMENT YES NO X  WELL INTEGRITY SATISFACTORY YES X NO  WELL INTEGRITY SATISFACTORY YES X NO  WELL YIELD LOW MODERATE HIGH  LEADER AND STANDARD ORP NOTES  LOCKING CAP HIGH  WELL INTEGRITY SATISFACTORY YES X NO  WELL YIELD LOW MODERATE HIGH  LEADER AND WATER COND. NOTES  LOCKING CAP YES X NO  WELL STANDARD ORP NOTES  LOCKING CAP YES X NO  WELL INTEGRITY SATISFACTORY YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X NO  WELL TYPE YES X
SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH TOC  DEPTH TO GROUNDWATER (DGW) 2 4 2  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4.5 8  CASING DIAMETER 2 IN.  ONE STANDING WELL VOLUME = .75 gal.  (NOTE ½" = 0.0102G/FT: ½" = 0.023 G/FT: 1" = 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)  THREE STANDING WELL VOLUMES = .2 1 2 5 FIVE STANDING WELL VOLUMES = .3 25  METHOD OF WELL EVACUATION: BAILER (UMP) OTHER: TYPE Peri-Pump  TOTAL VOLUME OF WATER REMOVED:
SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH TOC  DEPTH TO GROUNDWATER (DGW) 3 4 4  LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4 5 8  CASING DIAMETER 2 IN.  ONE STANDING WELL VOLUME = 75 gal.  (NOTE ½" = 0.0102G/FT: ½" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)  THREE STANDING WELL VOLUMES = 2 1 5 FIVE STANDING WELL VOLUMES = 3 25  METHOD OF WELL EVACUATION: BAILER (LUMD) OTHER: TYPE Peri-Pump  TOTAL VOLUME OF WATER REMOVED: 3 GAL. FLOW RATE 125 mL/min  WELL TYPE: FLUSH MOUNT ABOVE GRADE COMMENTS  LOCKING CAP YES X NO  PROTECTIVE POST/ABUTMENT YES NO X  NONPOTABLE LABEL YES X NO  DEPTH TO GROUNDWATER TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO STAND TO
LENGTH OF WATER COLUMN (LWC) = TWD - DGW =
LENGTH OF WATER COLUMN (LWC) = TWD - DGW =
CASING DIAMETER _ 2 _ IN.  ONE STANDING WELL VOLUME =, 75 gal.  (NOTE ½" = 0.0102G/FT: ½" = 0.023 G/FT: 1" = 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)  THREE STANDING WELL VOLUMES =, 2
ONE STANDING WELL VOLUME =
(NOTE ½" = 0.0102G/FT: ½" = 0.023 G/FT: 1" = 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)  THREE STANDING WELL VOLUMES = 2 2 5 FIVE STANDING WELL VOLUMES = 3 . 75  METHOD OF WELL EVACUATION: BAILER EUMP/OTHER: TYPE Peri-Pump  TOTAL VOLUME OF WATER REMOVED:
THREE STANDING WELL VOLUMES = 2,25 FIVE STANDING WELL VOLUMES = 3,75  METHOD OF WELL EVACUATION: BAILER (PUMP) OTHER: TYPE Peri-Pump  TOTAL VOLUME OF WATER REMOVED: 5 GAL. FLOW RATE 1,25 mL/min  WELL TYPE: FLUSH MOUNT (ABOVE GRADE) COMMENTS  LOCKING CAP YES X NO  PROTECTIVE POST/ABUTMENT YES NO X  NONPOTABLE LABEL YES X NO  ID PLATE YES X NO  WELL INTEGRITY SATISFACTORY YES X NO  WELL YIELD LOW MODERATE HIGH  Elapsed Purge Time Groundwater (in minutes) Groundwater PH (ILS/cm) (NTU) (mg/L) (°C) (mV) Notes  [8] Initial Reading 8,59 6,62 5,25 10 2 7,25 21,03 24,7
METHOD OF WELL EVACUATION: BAILER FUMP/OTHER: TYPE Peri-Pump  TOTAL VOLUME OF WATER REMOVED: S GAL. FLOW RATE 125 mL/min  WELL TYPE: FLUSH MOUNT ABOVE GRADE COMMENTS  LOCKING CAP YES X NO  PROTECTIVE POST/ABUTMENT YES NO X  NONPOTABLE LABEL YES X NO  WELL INTEGRITY SATISFACTORY YES X NO  WELL YIELD LOW MODERATE HIGH  Elapsed Purge Time (In minutes) Groundwater PH (INS/cm) (INTU) (mg/L) (C) (mV) Notes  Notes  Notes  Notes
TOTAL VOLUME OF WATER REMOVED:  WELL TYPE: FLUSH MOUNT ABOVE GRADE  LOCKING CAP  YES X NO  PROTECTIVE POST/ABUTMENT  YES NO X  NONPOTABLE LABEL  YES X NO  ID PLATE  YES X NO  WELL INTEGRITY SATISFACTORY  WELL YIELD  LOW MODERATE HIGH  Flapsed Purge Time (in minutes)  Purge Time (for minutes)  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Reading  Readin
WELL TYPE: FLUSH MOUNT ABOVE GRADE  LOCKING CAP  PROTECTIVE POST/ABUTMENT  YES X NO  NONPOTABLE LABEL  YES X NO  WELL INTEGRITY SATISFACTORY  WELL YIELD LOW MODERATE HIGH  Elapsed Purge Time (in minutes)  PH Cond. Turbidity Dis. O2 Temp ORP (my)  Notes  (in minutes)  Notes  No  23 9/L  WORL TIME ORD NOTES  NO  WELL YIELD LOW MODERATE HIGH  Notes  No  Local Temp ORP Notes  No  Notes  No  Local Temp ORP Notes  No  Notes  No  Local Temp ORP Notes  No  Notes  No  Notes  No  Local Temp ORP Notes  No  Notes  No  Notes  No  Local Temp ORP Notes  No  Notes  No  Notes  No  Local Temp ORP Notes  No  Notes  No  Notes  No  Local Temp ORP Notes  No  Notes  No  Notes  No  Notes
LOCKING CAP
PROTECTIVE POST/ABUTMENT YES NO X  NONPOTABLE LABEL YES X NO  ID PLATE YES X NO  WELL INTEGRITY SATISFACTORY YES X NO  WELL YIELD LOW MODERATE HIGH  Elapsed Depth to PH Cond. Turbidity Dis. 02 Temp ORP Notes (in minutes)  RESIDENT ORP (ILS/cm) (NTU) (mg/L) (°C) (mV)  Notes (in minutes)  NO X  NO X  NO DEPTH (ILS/cm) NO DEPTH (ILS/cm) (NTU) (mg/L) (°C) (mV)  Notes (Initial Reading 8,59 6,33 5,67 309 4,30 24,37 368 165)  NO X  NO X  NO DEPTH (ILS/cm) (NTU) (mg/L) (°C) (mV)
NONPOTABLE LABEL  YES X NO  DPLATE  YES X NO  WELL INTEGRITY SATISFACTORY  WELL YIELD LOW MODERATE HIGH  Elapsed Depth to PH Cond. Turbidity Dis. 02 Temp ORP (INS/cm) (INTU) (mg/L) (°C) (mV)  Notes  Initial Reading 8,59 6,62 5,25 102 2,25 2103 247
ID PLATE
WELL INTEGRITY SATISFACTORY         YES X NO         23 9/L           WELL YIELD LOW
WELL YIELD LOW MODERATE HIGH    Elapsed   Depth to   Depth to   Depth to   Purge Time (in minutes)   Groundwater (in minutes)   Groundwater   Depth to   D
Elapsed Depth to pH Cond. Turbidity Dis. 02 Temp ORP Notes (in minutes)  [NTU] Initial Reading 8.59 6.62 5.25 102 2.25 240? 247
Purge Time Groundwater pH (µS/cm) (NTU) (mg/L) (°C) (mV) Notes  [NTU] Initial Reading 8,59 6,62 5,67 309 4,30 24,37 368
Purge Lime   Groundwater   PH   (μS/cm)   (NTU)   (mg/L)   (°C)   (mV)   Notes
18 Initial Reading 8,59 6,33 5,67 309 4,30 24,37 368 1651 8,59 6,62 5,25 102 2,25 24,03 297
1651 8,59 6,62 5,25 102 2,25 2403 297
1654 8.59 6.63 S.22 64.6 2.18 24.01 294
1/14 8/89 6/63 5/22 41/1 2/03 24/05 289
-   11.%%   11.11   10.103   5 (also) 711   0(12)   3/12/1   also)
1641 C. C. C. C. C. C. C. C. C. C. C. C. C.



	I NUMBER <u>ke Energy-S</u> partan	·		<del></del>				70
	NEL TLH	-						
SCREENED INT DEPTH TO GRO LENGTH OF WA CASING DIAME ONE STANDING (NOTE ½" = 0.01 THREE STANDI METHOD OF WA	DEPTH (TWD) DEPTH (TWD) DERVAL DUNDWATER (DO ATER COLUMN ( ETER 2  G WELL VOLUM  102G/FT: ¾" = 0.0  ING WELL VOLU  ELL EVACUATION  TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE TERM TO THE	8-13 GW) (LWC) = T' _IN. E = / 23 G/FT: 1 JMES = ON: BA	316 8 WD – DGW ) gal. "= 0.041G/F 2, 1	MEASUR = 4.3 T: 2" = 0.163 FIVE STA	ING POINT  G/FT: 4" =  ANDING W  TYP	FOR DEPT:  = 0.653 G/FT ELL VOLUM E Peri-Pu	H TOO  : 6" = 1.46 C  AES =  mp	6/FT)
	FLUSH MOUNT		and the same				•	
LOCKING CAP		YI	ES X	NO				
PROTECTIVE PO	OST/ABUTMENT	r YI	ES	NOX	<u> </u>			
NONPOTABLE I	LABEL	YI	ES <u>X</u>	NO				
ID PLATE		YI	ES <u>X</u>	NO		* * * * * * * * * * * * * * * * * * *		
WELL INTEGRI	TY SATISFACTO	RY YI	ES <u>X</u>	NO		16	<del>2</del> //	
WELL YIELD	LOW	MODERA'	ΓE	HIGH			J/ 1	
Elapsed Purge Time (in minutes)	Depth to Groundwater	рH	Cond. (µS/cm)	Turbidity (NTU)			ORP (mV)	Notes
607 Initial Reading	8,87	4,2	4112	92.0	4.92	25,83	451	
1610	8.89	4,2	4,07	30.0	4,75	25,77	452	
1613	8.89	4.21	4.07	181	4.54	25/67		
1616	3.89	4,2	4:06	145	4138	25.69	454	
	0			1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			·	
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1								



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OS-15S
SITE NAME <u>Duke Energy-Spartanburg</u> DATE 9-12-13 TIME OF SAMPLE 1530
FIELD PERSONNEL TLH WEATHER CONDITIONS 88 Junny
$\ell$
TOTAL WELL DEPTH (TWD) 13 FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 8,97
LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 4.08
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME = $\frac{(-6)^{-7}}{2}$ gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{2.01}{2.01}$ FIVE STANDING WELL VOLUMES = $\frac{3.35}{2.01}$
METHOD OF WELL EVACUATION: BAILER / FUMP/ OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED: ,5 GAL. FLOW RATE 200 mL/min
WELL TYPE: FLUSH MOUNT (ABOVE GRADE) COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YES NO X
NONPOTABLE LABEL YES X NO NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOW MODERATE HIGH
Elapsed Depth to pH Cond. Turbidity Dis. O ₂ Temp ORP Notes
(in minutes) Groundwater (µS/cm) (N1U) (mg/L) (C) (mV)
1 Initial Reading 9,38 3,86 16,2 NR 9,49 33,06 389
1517 9.40 3.790.006 4.75 7.41 30.73 444
1520 9,40 3,780,007 89.8 5,42 30,71 441
15 23 9.40 3.28 0.007 43.6 5.08 30.71 438



AMEC PROJEC	T NUMBER	6228-12-0	021	MONITO	RING WEL	L NUMBER	OS-20S	<u> </u>
SITE NAME Du	ike Energy-Sparta	<u>nburg</u> D	ATE <u>9-12</u>	-13	TIME OF SA	AMPLE	1445	•
FIELD PERSON	NEL TLH				WEATHER (	CONDITION	18 <u>86</u>	Sunny
								/
TOTAL WELL I	DEPTH (TWD) _	13	FT. (	measured / we	ell tag / drille	ers log/ previ	ous report – c	ircle one)
SCREENED INT	TERVAL	8-13	383.	MEASUR	ING POINT	FOR DEPT	HTO	C
DEPTH TO GRO	OUNDWATER (D	(GW)	8.86	)	•			
LENGTH OF W.	ATER COLUMN	(LWC) = T	WD – DGW	= 4,10	Ĺ		<del>.</del>	
CASING DIAMI	ETER <u>2</u>	_IN.						
ONE STANDING	G WELL VOLUM	E= <u>0.</u>	68 gal.					
	102G/FT: ¾" = 0.0							
THREE STAND	ING WELL VOLU	JMES =	2,04	FIVE ST	ANDING W	ELL VOLUI	меs = <u>З</u>	<u>, 4</u>
	ELL EVACUATI		•					
TOTAL VOLUM	IE OF WATER RI	EMOVED:		5	GAL. FLO	W RATE	200	mL/min
WELL TYPE:	FLUSH MOUNT	'(ABOVE	GRADE			COMM	ENTS	
LOCKING CAP		Y	ES X	NO			<del></del> -	<del></del>
PROTECTIVE P	OST/ABUTMEN	T YI	ES	NOX	Χ			
NONPOTABLE	LABEL	YJ	ES X	NO				<del> </del>
ID PLATE		YI	ES <u>X</u>	NO		<del></del> .		· · · · · · · · · · · · · · · · · · ·
WELL INTEGRI	TY SATISFACTO	ORY YI	ES X	NO				
WELL YIELD	LOW	_MODERA	ГЕ	HIGH	<del></del> -	<del></del>		
Elapsed	Depth to		Cond.	Turbidity	Dis. O2	Temp	ORP	
Purge Time (in minutes)	Groundwater	pH	(µS/cm)	(NTU)	(mg/L)	(°C)	(mV)	Notes
Initial Reading	8,92	5.84	0,707	MR	1.77	29,77	26	
1436	892	5.80	0,693	· v	2.02	27.41	28	
1439	8.92					27.39	31	
1442	8.92	5,7%	A 481	27.6	2.21	27,38	35	
7-1-		7.76		~476		0,7,00	-Q.J	
		-						
		i						
		-						
	<del> </del>	<del>                                     </del>						



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OS-25S	
SITE NAME Duke Energy-Spartanburg DATE 9- 12 -13 TIME OF SAMPLE 1400	
FIELD PERSONNEL TLH WEATHER CONDITIONS \$60 Sunny	
TOTAL WELL DEPTH (TWD) 13 FT. (measured / well tag / drillers log/ previous report - circle one)	
SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH TOC	
DEPTH TO GROUNDWATER (DGW) 8,82	
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{4}{1}$	
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME = Or 69 gal.	
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)	
THREE STANDING WELL VOLUMES = $\frac{2.07}{100}$ FIVE STANDING WELL VOLUMES = $\frac{3.45}{100}$	
METHOD OF WELL EVACUATION: BAILER PUMP / OTHER: TYPE Peri-Pump	
TOTAL VOLUME OF WATER REMOVED: 5 GAL. FLOW RATE 200 mL/min	
WELL TYPE: FLUSH MOUNT / BOVE GRADE COMMENTS	
LOCKING CAP YES X NO	
PROTECTIVE POST/ABUTMENT YESNO X	
NONPOTABLE LABEL YES X NO	
ID PLATE YES X NO	
WELL INTEGRITY SATISFACTORY YES X NONO	
WELL YIELD LOWMODERATEHIGH	
Elapsed Depth to Cond. Turbidity Dis. O2 Temp ORP	
Purge Time Groundwater pH (μS/cm) (NTU) (mg/L) (°C) (mV) Notes	
Initial Reading 8.90 6:15 1.80 27.9 1.5 29.51 -21	
1353 8.40 6.23 1.15 23.0 0.76 29.43 -46	
1356 8 90 6,24 0,998 21.5 0,66 29,3 -53 1359 8 90 6,24 0,991 17.6 0.62 29,34 -57	
1359 8,90 6,24 0,991 17.6 0.67 29,34 -57	
100 10 10 10 10 10 10 10 10 10 10 10 10	
	-
	- 1



AMEC PROJECT	NUMBER	0220-12-00	<u> </u>		KTIAO METY	L MOMBER	<u> </u>	
SITE NAME Dul	ke Energy-Spartan	burg DA	ATE <u>9-12</u>	-13	TIM	E OF SAME	PLE 13	15
FIELD PERSON	NEL TLH			WEATHE	R CONDIT	ions <u>5</u>	unny	86
TOTAL WELL D	EPTH (TWD)	25	FT. (r	neasured / we	ell tag / drille	rs log/ previo	ous report – c	ircle one)
SCREENED INT	ERVAL	20-25		MEASUR	ING POINT	FOR DEPT	HTO	C
DEPTH TO GRO	UNDWATER (DO	GW)	10.06	<b>.</b>				
LENGTH OF WA	TER COLUMN (	LWC) = TV	WD – DGW	= 141	94		_	
CASING DIAME	TER 2	IN.						•
ONE STANDING	WELL VOLUMI	E ={{1}}	4 <u>5</u> gal.					
•	02G/FT: ¾" = 0.0							•
THREE STANDI	NG WELL VOLU	MES =	1,35	FIVE ST.	ANDING W	ELL VOLUM	MES = _/ <i>]</i>	1.25
	ELL EVACUATIO		· ·				ımp	
	E OF WATER RE		·	5	GAL. FLO	W RATE	150	mL/min
WELL TYPE:	FLUSH MOUNT	ABOVE C	GRADE			COMMI	ENTS	
LOCKING CAP		YI	SX	NO		<del> </del>		
PROTECTIVE PO	OST/ABUTMENT	YE	ES	NO	Δ			
NONPOTABLE I	LABEL	YE	ESX	NO	<del></del>			·
ID PLATE		YE	S <u>X</u>	NO			<del>,</del>	
WELL INTEGRI	TY SATISFACTO	RY YE	ES X	NO		_5 <	9/4	
WELL YIELD	LOW	MODERAT	ΓE	HIGH				
Elapsed Purge Time (in minutes)	Depth to Groundwater	рН	Cond. (µS/cm)	Turbidity (NTU)		Temp (°C)	ORP (mV)	Notes
Initial Reading	10.72	7,90	20.0	7.9	1/5%	32,72	442	han an amanger pool outsile of 1994, 1997, the restance
1308	10.75		14,9		0,66	77.72	447	
13/1	10.75	3,87	19.5	7.8 7.9	0,28	33.72 33.69	440	
1314	10:75	3.87 3.85	19.3	8.3	0	33.65	439	
		201		<u> </u>			· · · · · · · · · · · · · · · · · · ·	
		·						
			:					
		1			<del></del>			



AMEC PROJECT I	NUMBER	<u>6228-12-00</u>	21	MONITO	RING WEL	LNUMBER	OR-5S	
SITE NAME Duke	Energy-Spartan	burg DA	ATE 9-12	-13 7	TIME OF SA	MPLE	121	5
FIELD PERSONNI	EL <u>TLH</u>			v	VEATHER O	CONDITION	s <u>80</u>	B Sunny
								/
TOTAL WELL DE	PTH (TWD)	25	FT. (n	neasured / we	ll tag / drille	rs log/ previo	us report – c	ircle one)
SCREENED INTE				MEASUR	ING POINT	FOR DEPTI	OT F	C
DEPTH TO GROU	NDWATER (DO	GW)	9.34					
LENGTH OF WAT	ER COLUMN (	LWC) = TV	WD – DGW	= 150	66			
CASING DIAMET	ER 2	IN.		-				
ONE STANDING V	WELL VOLUM	$E = Q \cdot V$	$\frac{1}{2}$ gal.					
(NOTE $\frac{1}{2}$ " = 0.0102		_	-	T: 2" = 0.163	G/FT: 4"=	= 0.653 G/FT:	6" = 1.46	G/FT)
THREE STANDIN	G WELL VOLU	MES =	7,71	FIVE STA	ANDING W	ELL VOLUM	$MES = _{\underline{}}$	<u>2,85</u>
METHOD OF WEI	LL EVACUATIO	ON: BA	AILER PUN	MP OTHER:	TYP	E <u>Peri-Pu</u>	mp	<u></u>
TOTAL VOLUME	OF WATER RE	MOVED:		(	GAL. FLO	W RATE	100	mL/min
WELL TYPE: FI	LUSH MOUNT	ABOVE (	GRADE			COMME	ENTS	
LOCKING CAP		YI	ES X	NO		- <del> </del>		
PROTECTIVE POS	ST/ABUTMENT	YI	ES	NOX				
NONPOTABLE LA	ABEL	YI	ES <u>X</u>	NO				
ID PLATE		YH	ESX	NO				
WELL INTEGRITY	Y SATISFACTO	RY YI	ESX	NO		_5	9/4	of persult
WELL YIELD LO	OW	MODERA	ΓE	HIGH			4	
<b>Elapsed</b>	Depth to		Cond.	Turbidity	Dis. O2	Temp	ORP	
Purge Time (in minutes)	Groundwater	рН	(μS/cm)	(NTU)	(mg/L)		(mV)	Notes
1203 Initial Reading	10.37	68	1,44	9.0	1 74	20 09	1.19	
	<u> </u>			<del></del>	0110	2000	100	
1006	10135	6,92		7,3	0,49	28,57	105	
1209	10.35							
1212	10:35	6.95	1.41	115		28,64	48	
	<del>.</del>							



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OR-3S
SITE NAME Duke Energy-Spartanburg DATE 9- 12 -13 TIME OF SAMPLE
FIELD PERSONNEL TLH WEATHER CONDITIONS 80 Sunny
/
TOTAL WELL DEPTH (TWD)24.5FT. (measured / well tag / drillers log/ previous report - circle one)
SCREENED INTERVAL 19.5-24.5 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 9.67
LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 14/83
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME = $\frac{2.43}{\text{gal}}$
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{2}{12}$ five standing well volumes = $\frac{12}{12}$
METHOD OF WELL EVACUATION: BAILER / OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED:
WELL TYPE: FLUSH MOUNT ABOVE GRADE COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YESNO X
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO 8.3 9/L of persul
WELL YIELD LOW MODERATE HIGH
Elapsed Depth to Cond. Turbidity Dis. O2 Temp ORP
Purge Time Groundwater pH (µS/cm) (NTU) (mg/L) (°C) (mV) Notes
1122 Initial Reading 10.36 6.43 5.02 3.8 10.91 29.98 216
1125 10:36 6:37 4:67 1:7 8:99 29:64 205
1128 10:36 6:34 4:65 1.9 8 98 29:63 206
1131 10:36 6:34 4:65 1:9 8:48 29:63 206
113 1036 631 763 21 27 27 2162 20



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OR-3W	
SITE NAME <u>Duke Energy-Spartanburg</u> DATE 9- 12 -13 TIME OF SAMPLE <u>1056</u>	2
FIELD PERSONNEL TLH WEATHER CONDITIONS SUNTY	780_
TOTAL WELL DEPTH (TWD) 23 FT. (measured / well tag / drillers log/ previous report – circ	cle one)
SCREENED INTERVAL 18-23 MEASURING POINT FOR DEPTH TOC	
DEPTH TO GROUNDWATER (DGW) 10:16	
LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 12,84	
CASING DIAMETER IN.	•
ONE STANDING WELL VOLUME =gal.	
(NOTE $\frac{1}{2}$ " = 0.0102G/FT; $\frac{3}{4}$ " = 0.023 G/FT; $\frac{1}{2}$ " = 0.041G/FT; $\frac{2}{2}$ " = 0.163 G/FT; $\frac{4}{2}$ " = 0.653 G/FT; $\frac{6}{2}$ " = 1.46 G/FT = 0.0102G/FT; $\frac{3}{4}$ " = 0.023 G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.041G/FT; $\frac{3}{4}$ " = 0.053 G/FT; $\frac{3}{4}$ " = 0.054 G/FT; $\frac{3}{4}$ " = 0.054 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " = 0.055 G/FT; $\frac{3}{4}$ " =	and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second s
THREE STANDING WELL VOLUMES = $6:3$ FIVE STANDING WELL VOLUMES = $16:3$	5
METHOD OF WELL EVACUATION: BAILER PUMP/OTHER: TYPE Peri-Pump	
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATE [OC)	mL/min
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS	<del></del>
LOCKING CAP YES X NO	·
PROTECTIVE POST/ABUTMENT YESNOX	
NONPOTABLE LABEL YES X NO	
ID PLATE YES X NO	
WELL INTEGRITY SATISFACTORY YES X NO 169/L	
WELL YIELD LOWMODERATEHIGH	
Elapsed Depth to pH Cond. Turbidity Dis. O ₂ Temp ORP (in minutes) (NTU) (mg/L) (°C.) (mV)	Notes
Initial Reading 11.2 5.57 19.6 31.2 11.21 30.55 468	
	Lowel Flor
1046 11.32 6.29 21.0 15.6 14.75 29.37 372	
1049 11.32 6.29 21.0 129 14.78 29.38 368	



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OR-5W
SITE NAME <u>Duke Energy-Spartanburg</u> DATE 9- 12 -13 TIME OF SAMPLE 1010
FIELD PERSONNEL TLH WEATHER CONDITIONS 22° Sunny
/
TOTAL WELL DEPTH (TWD) 24 FT. (measured / well tag / drillers log/ previous report - circle one)
SCREENED INTERVAL 19-24 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 4.38
LENGTH OF WATER COLUMN (LWC) = TWD - DGW = 14.62
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME = $\frac{2.39}{\text{gal}}$ .
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{11.95}{}$ FIVE STANDING WELL VOLUMES = $\frac{11.95}{}$
METHOD OF WELL EVACUATION: BAILER PUMP / OTHER: TYPE Peri-Pump
TOTAL VOLUME OF WATER REMOVED: GAL. FLOW RATEmL/min
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YES NO X
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO 19.5 4/L
WELL YIELD LOWMODERATEHIGH
Elapsed Depth to Cond. Turbidity Dis. O2 Temp ORP
Purge Time Groundwater pH (μS/cm) (NTU) (mg/L) (°C) (mV) Notes
1 Initial Reading 10.68 3.71 18.5 36.8 2.77 26.35 520
9057 10.68 3.80 20.4 23.8 1.33 26.65 506
1002 10:69 3.80 2015 17.4 1.03 26.70 506
1007 10:69 3.80 20:5 14.6 .89 26:72 507



AMEC PROJECT	Γ NUMBER	6228-12-00	21	MONITO	RING WELI	NUMBER	OR-10W		
SITE NAME D	lea Engrave Sporten	ibuea D/	TE 0 12		TIME OF SA	MPI E	9.10		
FIELD PERSON	NEL <u>TLH</u>			V	VEATHER C	CONDITION	s <u>7</u> 2	o Sun	ny_
									1
TOTAL WELL I	DEPTH (TWD)	22.5	FT. (n	neasured / we	ll tag / drille	rs log/ previo	ous report – c	ircle one)	
SCREENED INT	ERVAL	18.5-22.5		MEASUR	ING POINT	FOR DEPT	HH	C	<u>-</u>
DEPTH TO GRO	OUNDWATER (De	GW)	9.16	)	<del>- 1 -</del>				
LENGTH OF WA	ATER COLUMN (	(LWC) = TV	WD – DGW	= <u>13</u> 0	34		_		
CASING DIAMI	ETER 2	_IN.	,						
ONE STANDING	G WELL VOLUM	E=	gal.						
•	102G/FT: ¾" = 0.0						Y	<b>~</b> ~ -	
THREE STAND	ING WELL VOLU	Л <b>M</b> ES =	6159	FIVE STA	ANDING W	ELL VOLUM	MES = /C	9.9	<del></del>
	ELL EVACUATION		<b>`</b>				_ •		_
	IE OF WATER RE			(	GAL. FLO	W RATE	\$ 50	mL/miı	n
WELL TYPE:	FLUSH MOUNT	/ ABOVE O	RADE			COMM	ENTS		
LOCKING CAP		YE	ES X	NO		,	· · · · · · · · · · · · · · · · · · ·		
PROTECTIVE P	OST/ABUTMENT	Γ YI	ES	NOX	<u> </u>				
NONPOTABLE	LABEL	YI	ESX	NO	····				
ID PLATE		YH	ESX	NO		1000	a mon		
WELL INTEGRI	TY SATISFACTO	ORY YE	ES <u>X</u>	NO	<del></del>				
WELL YIELD	LOW	_MODERA	TE	HIGH		_			
Elapsed Purge Time (in-minutes)	Depth to Groundwater	pΗ	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C.)	ORP (mV)	Note	<b>S</b>
f Initial Reading	9.76	7,89	207	28,4	377	24.27	484		and canality or justice.
<b>-</b>	10.03	3.28		7.7	1.78	22.78		1 -	Flow Rate
5 <u>850</u> 5 <u>855</u>	10.04	3.28	10,3	8,4	1.63	22.76	179	Lawer I	riow / Mie
5 <u>855</u> 0 4 <i>00</i>	·			8,0	1.61	22.75	13 /		
0 100	10.04	3.73	1014	3,0	1.01	NO(1)	031		
	-								
									-
			<u>.</u>						



A	MEC PROJECT	NUMBER	6228-12-00	21	MONITO	RING WELI	UNUMBER	MW-13 I	SOC	
S	ITE NAME <u>Dul</u>	ke Energy-Spartan	burgDA	ATE 9- 12	-13	TIME OF SA	MPLE	810		<del></del>
		NEL TLH								
Γ	OTAL WELL D	EPTH (TWD)	21.5	FТ. (r	neasured / we	ell tag / drille	rs log/ previo	ous report – c	ircle one)	
		ERVAL				ING POINT	FOR DEPT	H <u>TO</u>	C	
		UNDWATER (DO								
L	ENGTH OF WA	TER COLUMN (	LWC) = TV	WD – DGW	= 14	,u-1		-		
		TER4								
C	NE STANDING	WELL VOLUM	E=_ <b>9</b> ,	45 gal.						
		02G/FT: ¾" = 0.0			-4				,	
T	HREE STANDI	NG WELL VOLU	MES =	18,33	FIVE ST.	ANDING W	ELL VOLU	MES = L	11,25	
		ELL EVACUATIO			and the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th					
Т	OTAL VOLUM	E OF WATER RE	MOVED: _	)	<u>'</u> (	GAL. FLO	W RATE	200	mL/min	
V	VELL TYPE: <	FLUSH MOUNT	ABOVE (	FRADE			COMM	ENTS		
L	OCKING CAP		YE	ESX	NO	<u></u>				
P	ROTECTIVE PO	OST/ABUTMENT	YE.	ES	NOX	ζ				<del></del>
N	ONPOTABLE I	LABEL	YE	ES X	NO					
II	O PLATE			•	NO			1. 1		
V	VELL INTEGRI	TY SATISFACTO	RY YE	ES X	NO		<u>d,54</u>	1/L of	Klozur Far	The terminal of the second
V	VELL YIELD	LOW	MODERA	ΓE	HIGH					···-
	Elapsed	Depth to		Cond.	Turbidity	Dis. O ₂	Temp	ORP	Notes	
	Purge Time - (in minutes)	Groundwater	рН	_ (µS/em)	(NTU)	(mg/L)	(°C)	(mV)		
750	Initial Reading	7,17	5,31	4,49	222	2.87	24.8	138		
	755	7,29	5,32	4.61		2.55		144	Lower flow	Rate
	800	7,29	4.35	4.74	341	2,53	24.7	149		
	805	7,29	5,36	4.73	18.9	251	24.7	152		
			<del>J.J2</del>	<del></del>		20.31	V 1 - 1 -			-
									-	
1										



AN	MEC PROJECT N	UMBER	6228-12-0	0021		MONITOR	ING WELL NUME	BER	OS-25S	-
SI	ΓΕ NAMEDu	ke Energy -	Spartansburg	gDATI	E9/20/	13 T	IME OF SAMPLE_	830		
FII	ELD PERSONNE	L	Shane Sis	со		_WEATHER	R CONDITIONS	Sunny	mid 70's	
SC		VALIDWATER	8-13 (DGW)	9.05	MEASU	RING POIN	llers log/previous re	Manager and Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control of the Control o	e one)	
CA	SING DIAMETE	R2	IN.							
ON	NE STANDING W	ELL VOLU	JME =•	143 gal.						
TH	IREE STANDING	WELL VO	LUMES = _	1.931	FIVE S	TANDING	"= 0.653 G/FT: 6" WELL VOLUMES	= 3.21	5	
				-	and the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of the same of th		PE Per:		_	
	TAL VOLUME ( ELL TYPE: FL					GAL.	COMMENT	c b.B:	2 peris	peed
	CKING CAP	OSH MOOI		YES X			COMMENT	3	1 - 1 - 3	1-0-0
	OTECTIVE POS	Γ/ABUTME								
	ONPOTABLE LAI			YES X						
ID	PLATE		7	YES X	NO		20 p			
WI	ELL INTEGRITY	SATISFAC	TORY	YES X	NO		-			
WI	ELL YIELD LO	)W	MODER	ATE X	HIGH	I				
	Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp	ORP (mV)	Not	tes	
-	9.19	6.24	0.354	16.0	2.20	21,21	- 5 5			
S	9.19	6.28	0.366	ч.3	0-84	21.00	-64			
d	9.19	6.28	0.369	4.3	0.53	20.95	- 70			
			avelase	19/4		MZVAS	ner			
	1									



AM	EC PROJECT N	NUMBER	6228-12-0	0021		MONITOR	ING WELL N	JMBER	OS-20S		
SIT	E NAMED	uke Energy -	Spartansburg	DAT:	E9/20/	13 T	ME OF SAMP	LE 85	5		
FIE	LD PERSONNE	EL	Shane Sis	CO		_WEATHER	CONDITION	S Sunn	y mid-	70's	
	TAL WELL DE					(. <del></del> //					
	PTH TO GROU										
	NGTH OF WAT					6					
	SING DIAMET				29	21	9	-			
ON	E STANDING V	WELL VOLU	JME =	645 gal.							
(NC	OTE $\frac{1}{2}$ " = 0.0102	2G/FT: ¾"=	0.023 G/FT:	1"= 0.041G/H	T: 2" = 0.1	63 G/FT: 4'	' = 0.653 G/FT	: 6" = 1.46 (	G/FT)		
TH	REE STANDING	G WELL VO	DLUMES = _	1.936	FIVE S	TANDING '	WELL VOLUN	MES = 3.	225		
ME	THOD OF WEL	L EVACUA	TION: I	BAILER PÚI	MP OTHE	R: TY	PE Peri				
	TAL VOLUME						•				
WE	LL TYPE: FI	LUSH MOU	NT ABOVE	GRADE			COMME	ENTS 6.	64 per	:- spe	ed
LO	CKING CAP		· ·	YES X	NO						
PRO	OTECTIVE POS	ST/ABUTME	ENT Y	YES	NO	X					
NO:	NPOTABLE LA	BEL		YES X	NO						
ID I	PLATE		7	YES X	NO						
WE	LL INTEGRITY	SATISFAC	CTORY	YES X	NO						
WE	LL YIELD LO	OW	MODER	ATE X	HIGH	H H					
	Well Volume Removed	рН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp	ORP (mV)		Notes		
_	9.16	6.02	0.491	19.7	6.07	22.39	-7				
ô	9.17	5.52	0.743	12.5	5.21	22.05	33	-			
0	9. (8'	6.59	0.725	9.8	5.09	21.85	34	Horiba	turned o	ff-	pH di
S	9.18	5.71	0.675	8.7	4.35	21.76	20				rese
20	9.18	5.80	0.631	7.4	3.87	21.74	8				



AMEC PROJECT NUMBER 6228-	12-0021	MONI	TORING WELL NUMBI	ER OS-15S
SITE NAME Duke Energy - Spartans	burgDATE_	9/20/13	TIME OF SAMPLE	920
FIELD PERSONNEL Shane				
TOTAL WELL DEPTH (TWD)	FT. (me	asured / well tag	/ drillers log/previous rep	port - circle one)
SCREENED INTERVAL 8-13		_MEASURING	POINT FOR DEPTH	TOC
DEPTH TO GROUNDWATER (DGW)	9.10			
LENGTH OF WATER COLUMN (LWC	) = TWD - DGW =	3.90		
CASING DIAMETER 2 IN.				
ONE STANDING WELL VOLUME = _	0.635 gal.			
(NOTE 1/2" = 0.0102G/FT: 3/4" = 0.023 G/	FT: 1"= 0.041G/FT:	2" = 0.163 G/F	Γ: 4" = 0.653 G/FT: 6" =	= 1.46 G/FT)
THREE STANDING WELL VOLUMES	= 1.905	FIVE STAND	NG WELL VOLUMES =	3.175
METHOD OF WELL EVACUATION:	BAILER PUME	/OTHER:	TYPE Per:	
TOTAL VOLUME OF WATER REMOV	ED:	GAL.		
WELL TYPE: FLUSH MOUNT ABO	OVE GRADE		COMMENTS	5.71 peri-speed
	YES X			
PROTECTIVE POST/ABUTMENT	YES	NO X	_	
NONPOTABLE LABEL	YES X	NO		y a s
ID PLATE	YES X	NO		
WELL INTEGRITY SATISFACTORY	YES X	NO		
WELL YIELD LOWMOD	ERATE X	HIGH		

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
10.16	3.76	18.1	220	6.30	23.32	433	
10.26	3.75	18.2	150	8.24	23.32	446	
10.30	3.74	17.9	73.3	8.34	23.28	430	
10.30	3.74	17.3	25.2	8.10	23.24	422	1
10.36	3.75	17.4	12.3	7.87	23.33	416	
	,			_			
						3	-



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OS-10S
SITE NAME <u>Duke Energy - Spartansburg</u> DATE <u>9/20/13</u> TIME OF SAMPLE <u>952</u>
FIELD PERSONNEL Shane Sisco WEATHER CONDITIONS Swany mid- 70's
TOTAL WELL DEPTH (TWD) 13FT. (measured / well tag / drillers log/previous report – circle one)
SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW) 9.89
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = 4.11
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME = 6.66 % gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = $\frac{2.007}{}$ FIVE STANDING WELL VOLUMES = $\frac{3.335}{}$
METHOD OF WELL EVACUATION: BAILER PUMP OTHER: TYPE
TOTAL VOLUME OF WATER REMOVED: GAL.
WELL TYPE: FLUSH MOUNT ABOVE GRADE COMMENTS 5.27 Per: speed
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YESNOX
NONPOTABLE LABEL YES X NO
ID PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOWMODERATEXHIGH
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
9.31	4.06	7.52	27.5	3.57	23.52	407	
9.43	5.37	1.31	40.0	0.14	24.01	311	
9.42	5.67	1.25	68.2	0.87	23.46	307	
9.42'	4.51	2.68	35.8	3.41	23.74	304	
9.42'	4.42	2 .90	15.3	3.50	23.69	319	
9.42'	4.36	3.19	9.5	3.61	23.68	341	
							*
			9)				



AMEC PROJECT NUMBER 6228-	2-0021	MONIT	TORING WELL NUME	BER OS-5S
SITE NAME Duke Energy - Spartansl	ourgDATE_	9/20/13	_ TIME OF SAMPLE_	1024
FIELD PERSONNEL Shane	Sisco	WEAT	HER CONDITIONS	Sunry mid-70's
TOTAL WELL DEPTH (TWD)	FT. (me	asured / well tag /	drillers log/previous re	eport circle one)
SCREENED INTERVAL 8-13		_MEASURING P	OINT FOR DEPTH	TOC
DEPTH TO GROUNDWATER (DGW) _	8.69		_	
LENGTH OF WATER COLUMN (LWC)	= TWD - DGW =	4. 31		
CASING DIAMETER 2 IN.				
ONE STANDING WELL VOLUME =	0.702 gal.			
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/S	FT: 1"= 0.041G/FT:	2" = 0.163 G/FT	: 4" = 0.653 G/FT: 6"	= 1.46  G/FT
THREE STANDING WELL VOLUMES	2.106	_ FIVE STANDI	NG WELL VOLUMES	= 3.51
METHOD OF WELL EVACUATION:				
TOTAL VOLUME OF WATER REMOV	The state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the state of the s		•	
WELL TYPE: FLUSH MOUNT ABO	VE GRADE		COMMENTS	5.00 per: -speed
LOCKING CAP	YES X	_NO		
PROTECTIVE POST/ABUTMENT	YES	_NOX	4.53 5	lowed
NONPOTABLE LABEL	YES X	_NO	_	
ID PLATE	YES X	_NO		
WELL INTEGRITY SATISFACTORY	YES X	_NO		
WELL YIELD LOWMOD	ERATEX	HIGH		

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
9.41	6.61	4.11	8.3	3.60	24.21	241	
9.99'	6.63	4.41	6.3	3.28	24.55	168	Slowed pump
4.87	6.61	4.45	97.5	2.80	24.65	146	turbidity spiked
10.20	6.36	6.11	80.2	0.20	24.82	131	etnit get NTu do
10.27	6.33	5.48	50.4	0.52	24.47	123	
10.30	6.29	6.21	29.2	0.80	24.99	122	
:				:			



AMEC PROJECT NUMBER 6228-12-0021 MONITORING WELL NUMBER OS-5E
SITE NAME <u>Duke Energy - Spartansburg</u> DATE <u>9/20/13</u> TIME OF SAMPLE <i>loss</i>
FIELD PERSONNEL Shane Sisco WEATHER CONDITIONS 500 NO 100
TOTAL WELL DEPTH (TWD) FT. (measured / well tag / drillers log/previous report > circle one)
SCREENED INTERVAL 8-13 MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW)
LENGTH OF WATER COLUMN (LWC) = TWD – DGW = $\frac{9.72}{}$
CASING DIAMETER 2 IN.
ONE STANDING WELL VOLUME =gal.
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 G/FT: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES = 2.307 FIVE STANDING WELL VOLUMES = 3.8 45
METHOD OF WELL EVACUATION: BAILER (PUMP) OTHER: TYPE Peri
TOTAL VOLUME OF WATER REMOVED: GAL.
WELL TYPE: FLUSH MOUNT / ABOVE GRADE COMMENTS 499 peri - speed
LOCKING CAP YES X NO
PROTECTIVE POST/ABUTMENT YESNOX
NONPOTABLE LABEL YES X NO 4. 48 speed
D PLATE YES X NO
WELL INTEGRITY SATISFACTORY YES X NO
WELL YIELD LOWMODERATEX HIGH
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
8.72'	7.18	0.681	7.7	9.03	26.01	95	
8.95'	7.60	0.645	NA	5.05	26.62	115	NTU = 0.0
9.07	7.08	0.647	13.6	5.04	25.75	114	slowed pump for WL
9.10	7.04	0.632	1.2	4.77	26.19	118	,
q. 101	7.09	0.619	2.3	4.31	26.74	116	
			8 8				4 *
			v .				



AM	EC PROJECT N	UMBER	6228-12-0	021		MONITOR	ING WELL NU	MBER	OS-10E	8
SIT	E NAME Du	ke Energy -	Spartansburg	DAT	E9/20/	13 TI	ME OF SAMPI	E 112	7	1, 1
FIE	LD PERSONNE	L	Shane Sise	00		_WEATHER	CONDITIONS	Sunny	80°	
TO	TAL WELL DEP	TH (TWD)	1	3 FT. (1	neasured / v	vell tag / dril	lers log previou	s report cir	cle one)	
SCI	REENED INTER	VAL	8-13		MEASU	RING POIN	T FOR DEPTH	TOC		
DE	PTH TO GROUN	DWATER	(DGW)	7.97	7/	1 9				
	NGTH OF WATE					3	-			
	SING DIAMETE									
ON	E STANDING W	ELL VOLU	JME =	819 gal.						
(NC	OTE $\frac{1}{2}$ " = 0.0102	G/FT: ¾"=	0.023 G/FT:	1"= 0.041G/F	T: 2" = 0.10	63 G/FT: 4"	= 0.653 G/FT:	6" = 1.46 G/	TT)	
TH	REE STANDING	WELL VC	LUMES = _	2.457	FIVE S	TANDING V	WELL VOLUM	ES = 4.6	95	
ME	THOD OF WELL	L EVACUA	TION: E	AILER PUI	MPY OTHE	R: TY	PE Per:			
	TAL VOLUME (									
	LL TYPE: FL						COMME	NTS NTU	= 0.0	
LO	CKING CAP		I	ES X	NO					
PRO	OTECTIVE POS	T/ABUTME	ENT Y	YES	NO	X	Tried	several	times	to clear
NO	NPOTABLE LA	BEL	Y	ES X	NO		out	HORIBA	4	
ID	PLATE		Y	ES X	NO					
WE	LL INTEGRITY	SATISFAC	TORY Y	YES X	NO		4.45	peri-spe	ed	
WE	LL YIELD LO	W	MODERA	ATE X	HIGH	Н	<u> </u>			
	Well Volume	4	Cond.	Turbidity	Dis. O ₂	Temp	opp ( v		•	
	Removed	pН	(μS/cm)	(NTU)	(mg/L)	(°C)	ORP (mV)	N	Notes	
	8.301	7.05	0.337	NA	0.85	26.86	92	NTU =	0.0	

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
8.301	7.05	0.337	NA	0.85	26.86	92	NTU = 0.0
8.30	6.91	v.384	NA	0.02	26.60	-4	NTU = 0.0
8.36'	6.67	0.443	5.4	6.00	26.93	-42	
8.30'	6.66	0.445	7.1	0.80	26.90	-47	
		5					N
							20 70 70



A CERT AND OVER A STATE OF THE	(220 12 0021		3.603.77			
AMEC PROJECT NUMBER	6228-12-0021		MONITO	ORING WELL NUMB	ER OS-	5N
SITE NAME Duke Energy - S1	partansburg	_DATE	9/20/13	TIME OF SAMPLE_	1145	
FIELD PERSONNEL	Shane Sisco		WEATH	ER CONDITIONS	Sunny &	30°
TOTAL WELL DEPTH (TWD) _	13	_FT. (meası	ared / well tag /	drillers log previous re	port -circle one	e)
SCREENED INTERVAL	8-13	N	EASURING PO	DINT FOR DEPTH	TOC	
DEPTH TO GROUNDWATER (D	OGW)9.	16				
LENGTH OF WATER COLUMN	(LWC) = TWD -	DGW =	4.84	<u> </u>		
CASING DIAMETER 2	_IN.					
ONE STANDING WELL VOLUM	1E = 0.788	_gal.				
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.	023 G/FT: 1"= 0.0	041G/FT: 2'	' = 0.163 G/FT:	4" = 0.653 G/FT: 6" =	= 1.46 G/FT)	
THREE STANDING WELL VOL	UMES = 2.364	F	IVE STANDIN	G WELL VOLUMES =	3.44	
METHOD OF WELL EVACUATI		- ~				
TOTAL VOLUME OF WATER R	EMOVED:		GAL.			
WELL TYPE: FLUSH MOUNT				COMMENTS	4.35 per	speed
LOCKING CAP	YES	X N	0			
PROTECTIVE POST/ABUTMEN	T YES	N	OX			200
NONPOTABLE LABEL	YES	X N	0			
ID PLATE	YES	XN	0	, · · · .	36	
WELL INTEGRITY SATISFACTO						
WELL YIELD LOW	_MODERATE	×	_HIGH			
Well Volume Removed pH	Cond. Turb		s. $O_2$ Temp	(IRP/mV)	Notes	

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
8.54'	6.51	0.583	88.7	3.82	28.08	29	
8.60'	6.51	0.611	12.4	1.71	27.87	76	
8.60'	6.52	0.633	12.2	1.84	27.93	93	
8.60'	6.55	0.669	11.9	2.14	27.99	104	
					6		
					-		



AMEC PROJECT NUMBER 6	5228-12-0021	MONITOR	ING WELL NUMBER	OR-10S
SITE NAME Duke Energy - Spa	rtansburg DATE	9/20/13 TI	IME OF SAMPLE 120	8
FIELD PERSONNEL S	Shane Sisco	WEATHER	CONDITIONS Sunny	85°
			•	
TOTAL WELL DEPTH (TWD)	FT. (m	neasured / well tag / dril	llers log/previous report	ircle one)
SCREENED INTERVAL 2	20-25	MEASURING POIN	NT FOR DEPTHTO	C
DEPTH TO GROUNDWATER (DG	GW)10.11	· · · · · · · · · · · · · · · · · · ·		
LENGTH OF WATER COLUMN (I	LWC) = TWD – DGW =			
CASING DIAMETER2	IN.			
ONE STANDING WELL VOLUME	E =gal.			
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.02	23 G/FT: 1"= 0.041G/F	$\Gamma: 2" = 0.163 \text{ G/FT: } 4"$	'= 0.653 G/FT: 6" = 1.46 C	G/FT)
THREE STANDING WELL VOLUM	MES = 72	FIVE STANDING	WELL VOLUMES =	۵.۱
METHOD OF WELL EVACUATIO	N: BAILER PUM	OTHER: TY	PE Per:	
TOTAL VOLUME OF WATER REI	MOVED:	GAL.		
WELL TYPE: FLUSH MOUNT	ABOVE GRADE		COMMENTS	ri pump speed
LOCKING CAP	YES X	NO	3.99	
PROTECTIVE POST/ABUTMENT	YES	_NOX	2.44	
NONPOTABLE LABEL	YES X	NO		
ID PLATE	YES X	NO		T. 4
WELL INTEGRITY SATISFACTOR	RY YES X	NO		
WELL YIELD LOW X	MODERATE	HIGH	<u> </u>	
nH	Cond. Turbidity  µS/cm) (NTU)	Dis. O ₂ Temp (mg/L) (°C)	ORP (mV)	Notes

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
11.03	4.24	71.1	20.6	0.05	28.83	281	
12.11	4.03	19.5	19.9	6.00	28.18	356	
12.54'	4.02	19.7	14.1	0.00	27.99	384	
13.01	4.02	11.8	12.9	6.00	28.30	402	dropped pums
13.401	4.03	19.7	10.8	0.00	28.79	402	
		-	3				
			-				)



AM	IEC PROJECT N	UMBER	6228-12-0	0021		_MONITOR	ING WELL NU	MBER	5S	
SIT	E NAMEDu	ike Energy -	Spartansburg	DAT:	E 9/20/	13 TI	ME OF SAMPI	E 1316		
FIE	LD PERSONNE	L	Shane Sis	со		_WEATHER	CONDITIONS	Sunny 8.	5	
TO	TAL WELL DEF	PTH (TWD)		FT. (1	measured / v	vell tag / dril	lers log/previou	is report – circle	one)	
SCI	REENED INTER	VAL	20-25		MEASU	RING POIN	T FOR DEPTH	TOC		
	PTH TO GROUN									
LEI	NGTH OF WATI	ER COLUM	N(LWC) = T	TWD – DGW	= 15.	73				
	SING DIAMETE									
ON	E STANDING W	VELL VOLU	JME =	5 63 gal.						
	OTE $\frac{1}{2}$ " = 0.0102							,		
	REE STANDING				-				5	
	THOD OF WEL						PE feri			
	TAL VOLUME (					GAL.				
	ELL TYPE: FL						COMME	NTS 3.28	peri sp	eed
	CKING CAP			YES X			0:00			
	OTECTIVE POS	T/ABUTME	NT Y	YES	NO	X	DIFF	cult to ge. Reset H	t read o	^
	NPOTABLE LA	BEL							ORTBA 5	every
	PLATE			YES X						
	LL INTEGRITY								λ	
WE	LL YIELD LC	)W^	MODER.	ATE	HIGH	1	2.00			1
	Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Note	s	
	10.54	6.16	1.49	NA	0.80	30.27	234	NTU = 0.0		
	11.51	6.27	1.37	NA	0.59	30.92	182	NT4 = 0.0		
	12. 29	6.35	1.36	NA	0.79	30.82	174	ATU = 0.0	slowed	pump
5	12.74	٤.43	1.38	NA	0.99	30.68	154	NTU = 0.0 NTU=00	slowed a	gunu
0	12.80	6.49	1.42	3.2	1.19	30.54	135			] `
			4							



AMEC PROJECT NU	MBER	6228-12-0	0021		_MONITOF	RING WELL NUM	BER	OK-3S
SITE NAME Duke								
FIELD PERSONNEL		Shane Sis	со		_WEATHE	R CONDITIONS_	Sunny	85°
TOTAL WELL DEPT	H (TWD) _	2	24.5 FT. (1	measured / v	well tag / dri	llers log/previous	report – circle	one)
SCREENED INTERV	AL	19.5-24.5		MEASU	JRING POI	NT FOR DEPTH_	TOC	n i
DEPTH TO GROUND								
LENGTH OF WATER					9.34			
CASING DIAMETER								
ONE STANDING WE	LL VOLU	ME = 2.	500 gal.					
(NOTE $\frac{1}{2}$ " = 0.0102G	FT: ¾" = 0	0.023 G/FT:	1"= 0.041G/F	T: 2" = 0.1	63 G/FT: 4	" = 0.653  G/FT:  6"	" = 1.46 G/FT	)
THREE STANDING V								,
METHOD OF WELL				-0.00 Marian				
TOTAL VOLUME OF			-					_
WELL TYPE: FLU		48		= =:		COMMENT	rs 2. 06	per: - spee
LOCKING CAP			YES X	NO				
PROTECTIVE POST/						-		
NONPOTABLE LABI			YES X					
ID PLATE			YES X					
WELL INTEGRITY S	ATISFACT							
WELL YIELD LOW							8	1
Well Volume Removed	pH	Cond. (μS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Note	es
8.44'	6.22	4.56	39.1	5.79	30.80	158		
9.44	6.47	3.40	20.5	6.22	31.41	156		

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
9.44'	6.22	4.56	39.1	5.79	30.80	158	
9.44	6.47	3.40	20.5	6.22	31.41	156	
9.71	6.40	3.93	7.6	6.75	31.91	159	
9.74'	6.35	3.91	1.4	6.53	32.51	164	
9.77	6.32	3.85	1.2	6.35	32.73	167	
				:			
					-		
· ·							
			-				



AMEC PROJECT NUMBER 6228-12-	-0021	MONITORING	WELL NUMBER .	O <b>%</b> -10W	
SITE NAME Duke Energy - Spartansbur	gDATE	9/20/13 TIME (	OF SAMPLE	506	2.00
FIELD PERSONNEL Shane Si	sco	WEATHER CON	NDITIONS OVE	ercast 85°	
TOTAL WELL DEPTH (TWD)	22.5 FT. (measur	ed / well tag / drillers le	og/previous report	Scircle one)	
SCREENED INTERVAL 18.5-22.5	5 ME	EASURING POINT FO	OR DEPTH	TOC	
DEPTH TO GROUNDWATER (DGW)	9.37				
LENGTH OF WATER COLUMN (LWC) =	TWD – DGW =	13.13			
CASING DIAMETER IN.					
ONE STANDING WELL VOLUME =?	gal.				
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT	: 1"= 0.041G/FT: 2"	= 0.163  G/FT: 4" = 0.6	653 G/FT: 6" = 1.4	46 G/FT)	
THREE STANDING WELL VOLUMES =	6.42 FI	VE STANDING WELI	L VOLUMES =	10.7	
METHOD OF WELL EVACUATION:	BAILER / PUMP / O	THER: TYPE_	<i>feri</i>		
TOTAL VOLUME OF WATER REMOVED	D:	GAL.			
WELL TYPE: FLUSH MOUNT ABOV	E GRADE		COMMENTS	2.34 peri -s	peed
LOCKING CAP	YES X NC	)			
PROTECTIVE POST/ABUTMENT	YESNC	X	2.09 speed		
NONPOTABLE LABEL	YES X NO		*****	-	
ID PLATE	YES X NO	)			
WELL INTEGRITY SATISFACTORY	YES X NO	1			
WELL YIELD LOW X MODER	RATE	HIGH			

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
9.97'	3.88	15.3	41.3	3.96	31.08	471	
10.24	4.29	11.4	18.7	3.75	30.57	441	dropped pump
10.45	4.68	9.36	13.2	3.55	31.13	404	
10-58	4.81	8.45	13.0	3.37	31.27	391	
10.70'	4.82	9.10	5.9	2.10	31,62	388	
-							
	1	-					
-							



AMEC PROJECT NUMBER 6228-12	2-0021 MONITORING WELL NUMBER OR-5W
SITE NAME Duke Energy - Spartanbu	ITIME OF SAMPLE 1941
FIELD PERSONNEL Shane S	Sisco WEATHER CONDITIONS Sunny 85°
TOTAL WELL DEPTH (TWD) 24	FT. (measured / well tag / drillers log/ previous report – circle one)
SCREENED INTERVAL 19-24	MEASURING POINT FOR DEPTH TOC
DEPTH TO GROUNDWATER (DGW)	9.51
LENGTH OF WATER COLUMN (LWC) =	= TWD - DGW =
CASING DIAMETER 2 IN.	
ONE STANDING WELL VOLUME =	2.361 gal.
(NOTE $\frac{1}{2}$ " = 0.0102G/FT: $\frac{3}{4}$ " = 0.023 G/FT	T: 1"= 0.041G/FT: 2" = 0.163 G/FT: 4" = 0.653 G/FT: 6" = 1.46 G/FT)
THREE STANDING WELL VOLUMES =	FIVE STANDING WELL VOLUMES = 11.805
METHOD OF WELL EVACUATION:	BAILER PUMP OTHER: TYPE <u>feri</u>
TOTAL VOLUME OF WATER REMOVE	ED: GAL.
WELL TYPE: FLUSH MOUNT / ABOV	VE GRADE COMMENTS 2.54 per - speed
LOCKING CAP	YES NO
PROTECTIVE POST/ABUTMENT	YESNO×
NONPOTABLE LABEL	YESXNO
ID PLATE	YES _ x NO _ turbid; ty would not drop
WELL INTEGRITY SATISFACTORY	YES NO
WELL YIELD LOW MODE	RATEHIGH

Well Volume Removed	рН	Cond. (μS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp	ORP (mV)	Notes
10.34	4.79	19.4	35.5	2.82	31.54	310	
10.65	3.78	18.5	28.2	1.32	31.96	391	
10.86	261	19.4	27.5	0.00	32.32	425	
11.(1)	3.60	19.4	28.4	0.29	32.24	459	
11,25	3.60	19.4	30.1	0.00	31.89	469	



AN	IEC PROJECT N	UMBER	6228-12-0	0021		MONITOR	ING WELL NU	JMBER	OR-3W
SI	TE NAMEDu	ke Energy -	Spartansburg	DAT.	E9/20/	13 TI	ME OF SAMPI	LE 1418	
FII	ELD PERSONNE	L	Shane Sis	CO		WEATHER	CONDITIONS	Sunny	85°
TC	TAL WELL DEP	TH (TWD)	2	FT. (1	measured / w	vell tag / dril	lers log/previou	us report circ	ele one)
SC	REENED INTER	VAL	18-23	MEA	SURING PO	DINT FOR E	DEPTH	TOC	
DF	PTH TO GROUN	DWATER	(DGW)	9.61		11 22			
	NGTH OF WATE				= 13	. 39	9.2		
	SING DIAMETE								
ON	E STANDING W	ELL VOLU	JME =	2.18 gal.					
(N	OTE $\frac{1}{2}$ " = 0.0102	G/FT: 3/4" =	0.023 G/FT:	1"= 0.041G/I	FT: 2" = 0.16	63 G/FT: 4"	= 0.653 G/FT:	6" = 1.46 G/F	T)
TH	REE STANDING	WELL VO	LUMES =	4-618	FIVE ST	TANDING V	WELL VOLUM	IES =	6.54
	ETHOD OF WELL								
	TAL VOLUME (								
	ELL TYPE: FL				. 8		COMME	NTS 2.5	s peri spee
	CKING CAP			YES X	NO				
	OTECTIVE POST	Γ/ABUTMF					-		
	NPOTABLE LAI			YES X					
	PLATE			YES X			-		
	ELL INTEGRITY	SATISEAC		YES X			:		
	ELL YIELD LO						-	F	
44.1	EEE TIEED EO	W	WODER	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		A STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STATE OF THE STA			
	Well Volume	pН	Cond.	Turbidity	Dis. O ₂	Temp	ORP (mV)	No	otes
	Removed	1	(μS/cm)	(NTU)	(mg/L)	(°C)			
	10.391	6.71	26.7	9.8	17.01	33.44	175		
					1-16				
5	10.69'	6.69	26.7	10.8	17.19	33.24	192	lowered	Ours cala
	10.69'	6.69	26.7	10.8	17.26	33.24	192	lowered	pump rate

210110		(рыстель)	(1,10)	(11.8, 22)	( )			
10.39	6.71	26.7	9.8	17.01	33.49	175		
10.69	6.69	26.7	10.8	17.19	33.24	192	lowered	pump rate
10.80	6.67	26.7	12.9	17.26	32.92	204		
10.85	6.66	27.1	15.1	10.63	32.29	211		



AMEC PROJECT NUMBER 6228	3-12-0021	MONI	TORING WELL NU	JMBER	MW-13 ISOC
SITE NAME Duke Energy - Spartan	sburgDATE_	9/20/13	_ TIME OF SAMP	LE 1533	
FIELD PERSONNEL Shar	ne Sisco	WEAT	HER CONDITION	s overcast	8 5 °
TOTAL WELL DEPTH (TWD)	21.5 FT. (mea	asured / well tag	/ drillers log/previo	us report circle	e one)
SCREENED INTERVAL 6.5-2	MEASU	RING POINT F	OR DEPTH	TOC	
DEPTH TO GROUNDWATER (DGW)	7.25		<u> </u>		1
LENGTH OF WATER COLUMN (LWG	C) = TWD - DGW =	14.25			
CASING DIAMETER 4 IN.					
ONE STANDING WELL VOLUME =	9.053 gal.				
(NOTE ½" = 0.0102G/FT: ¾" = 0.023 C	G/FT: 1"= 0.041G/FT:	2" = 0.163 G/F7	$\Gamma$ : 4" = 0.653 G/FT:	6" = 1.46 G/FT	)
THREE STANDING WELL VOLUMES					
METHOD OF WELL EVACUATION:	BAILER /PUMP	OTHER:	TYPE Per:		<u> </u>
TOTAL VOLUME OF WATER REMO			<b>\</b>		
WELL TYPE FLUSH MOUNTY AB	OVE GRADE		COMME	NTS 2.42	speed
LOCKING CAP	YES X	NO	_		
PROTECTIVE POST/ABUTMENT	YES	NO X	turb:	lity slowly	stabilizing
NONPOTABLE LABEL	YES X	NO	* m;	uch longer	than others
ID PLATE	YES X	NO			
WELL INTEGRITY SATISFACTORY	YES X	NO			
WELL YIELD LOWMO	DERATE X	HIGH			
Wall Walland	1 m 1:14 m	D' 0 T			

Well Volume Removed	pН	Cond. (µS/cm)	Turbidity (NTU)	Dis. O ₂ (mg/L)	Temp (°C)	ORP (mV)	Notes
7.35	5.10	4.65	201	0.06	32.43	266	
7.34	5.49	4.62	203	0.00	32.50	133	
7.40'	5.41	4.59	136	0.00	32.45	190	
7.42	5.40	4.60	80,2	0.00	32.42	119	
7.47	5.59	4.57	93.3	0.00	32.64	86	
7.50	5.62	4.55	80.2	0.00	32.77	71	
QV.							
					-		