LAKELAND 4705 Old Highway 37
Lakeland, FL 33813
PHONE 863-646-1402

WINTER HAVEN 351 3rd Street NW
Winter Haven, FL 33881
PHONE 863-875-6986

MAIL Post Office Box 5710
Lakeland, FL 33807-5710

September 15, 2016

Ms. Allison Amram, PG
Brownfields Coordinator
Environmental Protection Commission of Hillsborough County
Waste Management Division
3629 Queen Palm Drive, 2nd Floor South
Tampa, Florida 33619

RE: Community Redevelopment Agency (CRA) of the City of Plant City
FAC Chapter 62-780.680 Risk Management Options Level III – CNFAP Addendum
Former GRO-MOR Fertilizer and Stock Building Supply/McGinnes Lumber
Brownfield Site Nos. BF291002002 and BF291002001
CSI File No. 9680.24C

Dear Ms. Amram:

As you know, in correspondence dated August 25, 2016, Chastain-Skillman, Inc. (CS) provided a Conditional No Further Action Proposal Update to the Environmental Protection Commission of Hillsborough County (EPC) for the above referenced Sites.

Since that time, additional well construction, groundwater sampling/analysis, and survey activities were conducted as proposed within the CNFAP Update. Accordingly, CS is providing this CNFAP Addendum for the above-referenced Sites. Information within this CNFAP Addendum includes a summary with supporting documentation of the following:

1. Installation of four additional wells and collection of groundwater samples for laboratory analyses to further delineate and evaluate the extent of groundwater impacts with respect to iron and manganese.
2. Collection of additional survey and water level data to further evaluate groundwater/surface water elevations and flow directions within the western portion of the area of investigation.
3. CS's summary, conclusions, and recommendations.

<u>ADDITIONAL WELL CONSTRUCTION AND GROUNDWATER WATER SAMPLING/ANALYSIS</u>

Four additional monitoring wells were installed using a direct push drilling rig on August 26, 2016, as follows:

- Monitoring well MW-34 was installed generally to the west of MW-31 within the S. Howard Street right-of-way.
- Monitoring well MW-35 was installed generally to the northwest of MW-31 within the S. Daniels Street right-of-way.
- Monitoring well MW-36 was installed generally to the north of MW-31 within the West Renfro Street right-of-way.
- Monitoring well MW-37 was installed generally to the south of MW-32 within the West Ball Street right-of-way.

Groundwater samples were collected from MW-33 and MW-34 through MW-37 on August 28, 2016. Each groundwater sample was analyzed for Iron and/or Manganese by EPA method 6010 C. A summary of the groundwater analytical results is included as **Table 1**. In addition, groundwater and surface water measurement were collected on September 9, 2016, from recently constructed wells, existing monitoring wells, and near the recent surface water sampling locations. A summary of the groundwater and surface water elevations are included as **Table 2**.

Figure 1 depicts groundwater/surface water elevation data with inferred groundwater flow contours for the data collected on September 9, 2016. Items of note are as follows:

- The inferred direction of groundwater flow within the eastern portion of the area of investigation is generally consistent with previous submittals by PPM Consultants, Inc. for the former Gro-Mor/Stock Building/McGinnes Sites as well as the Former Hydraulic Hose Site. The groundwater flow generally trends from east to west, and from the southwest and northwest, toward the wetland area.

- The inferred direction of groundwater flow within the northwestern portion of the area of investigation generally trends from north to south toward the wetland area.

- The inferred direction of groundwater flow within the southwestern portion of the area of investigation generally trends to the northeast toward the wetland area.

- The surface water elevations collected near the inflow to the wetland area (SW001) and outflow from the wetland area (SW003) generally confirm the south to north flow within the wetland. In addition, a comparison of the surface water and groundwater elevation data provides further evidence that groundwater flows toward the wetland from the east, north, and southwestern portions of the area of investigation.

Figure 2 depicts the inferred extent of the dissolved iron groundwater plume based upon the most recent sampling results. Items of note are as follows:

- The most recent iron concentration at MW-33 was below the Groundwater Cleanup Target Level (GCTL). Based upon the direction of groundwater flow and surface water elevations depicted on **Figure 1**, the iron concentration previously identified at MW-33 appears to be background and/or not related to these Sites.

- The iron concentration identified at MW-34 was below the GCTL. Based upon the direction of groundwater flow and surface water elevations depicted on **Figure 1,** the iron concentration identified at MW-34 may be background and/or not related to these Sites.

- The iron concentration identified at MW-35 was above the GCTL. However, based upon the direction of groundwater flow depicted on **Figure 1,** the iron concentration identified at MW-35 appears to be background and/or not related to these Sites.

- The iron concentration identified at MW-36 was above the GCTL. However, based upon the direction of groundwater flow depicted on **Figure 1,** the iron concentration identified at MW-36 may be background and/or not related to these Sites.

- The iron concentration identified at MW-37 was above the GCTL. However, based upon the direction of groundwater flow depicted on **Figure 1**, and the iron concentrations identified at MW-30 and MW-33, the iron concentration identified at MW-37 appears to be background and/or not related to these Sites.

Figure 3 depicts the inferred extent of the dissolved manganese groundwater plume based upon the most recent sampling results. Items of note are as follows:

- The manganese concentration at MW-33 was below the GCTL. Based upon the direction of groundwater flow and surface water elevations depicted on **Figure 1**, the manganese concentration previously identified at MW-33 appears to be background and/or not related to these Sites.

- The manganese concentration identified at MW-34 was slightly above the GCTL. Based upon the direction of groundwater flow and surface water elevations depicted on **Figure 1,** the manganese concentration identified at MW-34 may be background and/or not related to these Sites.

- The manganese concentration identified at MW-35 was above the GCTL. However, based upon the direction of groundwater flow depicted on **Figure 1,** the manganese concentration identified at MW-35 appears to be background and/or not related to these Sites.

- The manganese concentration identified at MW-36 was above the GCTL. Based upon the direction of groundwater flow depicted on **Figure 1,** the manganese concentration identified at MW-36 may be related to these Sites.

- The manganese concentration identified at MW-37 was below the GCTL. However, based upon the direction of groundwater flow depicted on **Figure 1,** the manganese concentration identified at MW-37 appears to be background and/or not related to these Sites.

Well construction documentation for MW-34 through MW-37 is included in **Attachment A** and laboratory reports associated with CSI's groundwater and sampling activities on August 28, 2016, are included in **Attachment B**.

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

1. As depicted on **Figure 1**, the surface water and groundwater elevation data obtained on September 9, 2016, indicates that groundwater flows toward the wetland from the east, north, and southwestern portions of the area of investigation.

2. As documented within the CNFAP Update dated August 25, 2016, the Class III surface water quality criteria for iron is < 1.0 mg/l. The most recent iron in groundwater results from MW-32 (i.e. 11.6 mg/l) were greater than the Class III surface water quality criteria. However, the surface water samples collected on July 5 and July 22, 2016, from the inflow to the wetland area, outflow from Pond B, and outflow from the wetland were less than the Class III surface water criteria for iron (i.e. SW001/Inflow was 0.184 mg/l, SW002/Outflow was 0.167 mg/l, and SW003/Outflow was 0.123 mg/l). Also, Chapter 62-302 does not have a Class III surface water quality criteria for manganese.

3. Based upon the directions of groundwater flow and/or surface water elevations within the area of investigation, and the most recent Iron results as depicted on **Figure 2**, no additional groundwater delineation should be required with respect to Iron for these Sites.

4. Based upon the directions of groundwater flow and surface water elevations within the area of investigation, and the most recent Manganese results as depicted on **Figure 3**, no additional groundwater delineation should be required with respect to Manganese for these Sites.

If you have any questions or require additional information, please contact our office at your earliest convenience.

Sincerely,

CHASTAIN-SKILLMAN, INC.

Charles Browning 9/15/16

Charles Browning, PG
Senior Project Manager

Greg Lassi

Greg J. Lassi, PG, MPH
Senior Consultant

xc: Kenneth W. Buchman, City Attorney, City of Plant City
Mr. Michael A Schenk, P.E., City Engineer
Frank Hearne, Esquire

TABLES

Former Gro-Mor Facility
City of Plant City

CSI Job No. 9680.24 C

Table 1. Ground-Water Analytical Results
Combined Gro Mor Fertilizer & Stock-McGinnes Lumber
Plant City, Florida

Sample		Ammonia Nitrogen	Nitrate	Cadmium	Iron	Manganese	Sulfate	Gross Alpha	Radium 226+228
Location	Date	(mg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(pC_i/L)	(pC_i/L)
	GCTL--->	2.8	10	5	300	50	250	15	5
	NADC--->	28	100	50	3000	500	2500	150	50
MW-1	Mar-Apr 2010	123	570	2.3					
	Apr 2011	0.094	760	7.5					
	07/17/12	1,300	1,100	30					
MW-1R	09/18/14	460	950	3.8					
	05/31/16				36.5	572			
MW-2	Mar-Apr 2010	109	86	7.8					
	04/14/11	0.067	91	3.7					
	07/17/12	220	370	8.8					
		WELL HEAD NEEDS REPAIR							
MW-3	Mar-Apr 2010	1.340	1.6	0.6					
	04/14/11	0.088	0.3	0.6					
	07/16/12								
MW-4R	Mar-Apr 2010	326	2,400	16					
	Jun 2011	680	3,700	28					
	07/16/12	1,000	1,700	18					
	09/18/14	1,100	1,600	11					
MW-5	Mar-Apr 2010	28.9	3,100	29					
	04/14/11	0.83	1,400	28					
	07/16/12	1,000	880	10					
		NOT LOCATED							
MW-7	Mar-Apr 2010	0.690	0.14 U	0.6 U					
	04/14/11	0.049	1.1	0.6 U					
	05/31/16				158	2.00 U			
MW-9	04/19/10	1.350	220	8.5					
	04/14/11	0.037	7.5	2.5					
	07/26/12		27	3.0 I		820 V	110	2.5±1.5 U	1.0±0.73 U
		DESTROYED							
MW-10	04/19/10	106	1.7	0.6 U					
	04/14/11	0.036	0.018 U	0.6 U					
	07/16/12	0.072							
	07/05/16					14.9			
MW-11	04/19/10	45.2	36	0.6 U					
	04/14/11	0.12	4.1	0.6 U					
	07/17/12	0.36	0.049 I						
	09/18/14	2.5	1.8	0.93 U					
MW-12	06/15/11	0.210	21	0.6 U					
	07/16/12		0.10						

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Plant City, Florida

Sample		Ammonia Nitrogen	Nitrate	Cadmium	Iron	Manganese	Sulfate	Gross Alpha	Radium 226+228
Location	Date	(mg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(pC_i/L)	(pC_i/L)
	GCTL--->	2.8	10	5	300	50	250	15	5
	NADC--->	28	100	50	3000	500	2500	150	50
MW-13	06/16/11	14	7.4	0.6 U					
	07/17/12	62	68	1.8 I					
	09/25/14	0.019 I	400	7.8					
MW-14	06/16/11	11	2.5	0.6 U					
	07/26/12	10 V	8.6	1.1 U	710	520	320	25±5.1	3.0±0.75
		DESTROYED							
MW-15	04/19/10		6.0						
	Jun 2011	590	790	27					
	07/16/12	420	650	11	500	2,100	920	100±4.7	15.6±1.18
	09/18/14	100	140	0.93 U	1,900	2,400	760	48±7.1	12.7±0.89
MW-16	07/26/12	2,200	2,000	15		2,200	3,800	79±4.2	7.7±0.96
	09/18/14	1,700	0.54	12		1,900	250	35±3.2	15.2±1.07
	05/31/16				294	1,280			
MW-17	07/26/12	0.90	0.14	1.1 U					
	09/18/14	41	64			200			
	04/10/15			0.70 I					
	07/06/15				55.7	1,110			
MW-18	07/26/12	24 V	63						
MW-18R	09/19/12				8.8 I	140	120	21±4	
	09/16/14	95	170		74	590		38±3.2	
MW-20	07/26/12	0.50 V	0.062 I		680	220	46		
MW-20R	09/16/14	0.079			12,000	53			
MW-21	07/26/12					79			
MW-22	07/26/12	3.1						5.6±3.1	2.4±0.31 U
	09/18/14	4.2							
MW-23	09/19/12					32			
	09/16/14	0.064			120	23			
	05/31/16				162	5.70			
MW-24	09/19/12					8.7			
	09/18/14	0.022 I							
MW-25	09/18/14	1.9	0.55	0.93 U	260	65	250	40±8.82	2.8±0.7 U
MW-26	09/25/14	0.064 I		0.50 U	1,320	35.1			

Table 1. Ground-Water Analytical Results
Combined Gro Mor Fertilizer & Stock-McGinnes Lumber
Plant City, Florida

Sample		Ammonia Nitrogen	Nitrate	Cadmium	Iron	Manganese	Sulfate	Gross Alpha	Radium 226+228
Location	Date	(mg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(pC_i/L)	(pC_i/L)
	GCTL--->	2.8	10	5	300	50	250	15	5
	NADC--->	28	100	50	3000	500	2500	150	50
MW-27	09/25/14	0.12			2,200	12.0 I			
MW-28	**05/31/16**				1,060	23.9			
MW-30	**07/05/16**				22.4				
MW-31	04/10/15	6.3	0.050 U	0.50 U		272		4.9±1.2	
	05/31/16				18,600	230			
MW-32	04/10/15	4.5	0.050 U		6,300	83.0		6.2±1.5	
	05/31/16				11,600	97.6			
MW-33	07/06/15				357	11.2			
	08/28/16				7.00 U				
MW-34	**08/28/16**				73.9	54.5			
MW-35	**08/28/16**				1,410	63.9			
MW-36	**08/28/16**				10,700	85.4			
MW-37	**08/28/16**				1,170	21.6			
DW-1	06/15/11	32	39	1.9					
	07/16/12	0.93	0.79						
		NOT LOCATED							
MW-101	04/03/08			3.4 I	600	120	510	41±2	25±3.6
	04/14/11	0.022	130		47	100	410	49±8.4	10±4.2
	07/26/12	120	110		18 I	91	360	24±5.3	10.3±0.97
	09/18/14	200	120	5.1	180	160	360	74±4.2	37.6±1.1
	07/05/16				52	87.1			
MW-102	04/03/08			18					
	06/27/08			1.0 U					
	Apr 2011		4.9					16.6±6.5	17±0.2
	07/27/12							43±6.6	4.4±0.8
MW-103	04/02/08			0.71 U	4,500	47	26	18±2.0	2.2±1.7
	04/14/11		1.1		40			3.7±2.7	
	07/27/12				28			3.2±2.6	4.1±0.19

Table 1. Ground-Water Analytical Results
Combined Gro Mor Fertilizer & Stock-McGinnes Lumber
Plant City, Florida

Sample		Ammonia Nitrogen	Nitrate	Cadmium	Iron	Manganese	Sulfate	Gross Alpha	Radium 226+228
Location	Date	(mg/L)	(mg/L)	(µg/L)	(µg/L)	(µg/L)	(mg/L)	(pC_i/L)	(pC_i/L)
	GCTL--->	2.8	10	5	300	50	250	15	5
	NADC--->	28	100	50	3000	500	2500	150	50
MW-104	04/01/08		18	0.71 U			280		
	06/16/11	29	6.8	0.6 U			110	10±3.8	3.0±0.23
	07/27/12	32							
	09/18/14	26							
MW-105	Apr 2008			0.76 I	2,300	72	100	9.1±1.7	6.8±2.5
	06/16/11	11	8.6	0.6 U	1,800	92	67	7.4±3.7	1.3±0.19
	07/27/12	5.8			120	40		6.5±2.6	2.8±0.77
	09/18/14	0.0071 U				16			
	05/31/16				54.8	8.50			
MW-106	06/16/11	8.3	0.490	0.6 U			0.620	2.2±2.2 U	1.7±0.45
	07/27/12	5.5			38,000	230		2.5±1.7 U	1.5±0.22
	09/16/14	2.0	0.3		26,000	170	3.7		2.2±0.57
	05/31/16				38,600	263			
MW-107	06/16/11	3.8	33	0.6 U			38	8.1±3.7	0.9±0.13
	07/27/12	0.78	0.11						
MW-108	04/19/10	0.438	0.14 U						
	Apr 2011	0.097	0.031 I	0.6 U	1,400	8.6		9.4±3.3	0.8±0.21
	07/27/12	0.024 I	0.018 I		410	7.7			
		DESTROYED							
PMW-11	09/19/12				1,600	11			
PMW-18	09/19/12	7.7	0.018 U		16,000		1.1		
	09/16/14	8.7	0.34		15,000	290		5.8±4.3	
	07/06/16				12,100	266			

Red indicates the concentration is greater than the Groundwater Cleanup Target Level (GCTL)

Table 2. Ground-Water Elevation
Combined Gro Mor Fertilizer & Stock-McGinnes Lumber
Plant City, Florida

WELL NO.	MW-1R			MW-7			MW-10			MW-16		
DIAMETER (inches)	2			1			1			2		
WELL DEPTH	12			12			12			11.0		
SCREEN INTERVAL	2-12			2-12			2-12			1-11		
TOC ELEVATION	122.88			127.47			126.09			123.60		
DATE	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**
09/09/16	122.82	0.06	0.49	124.28	3.19		123.19	2.90		121.48	2.12	
08/28/16	122.33	0.55	2.29									
07/05/16							123.10	2.99				
05/31/16	120.04	2.84		122.49	4.98					120.78	2.82	

WELL NO.	MW-17			PMW-18			MW-23			MW-26		
DIAMETER (inches)	2			2			2			2		
WELL DEPTH	11.0			10			11			12		
SCREEN INTERVAL	1-11			2.5-10			1-11			2-12		
TOC ELEVATION	121.86			122.01			124.53			123.48		
DATE	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**
09/09/16	120.25	1.61	-0.40	120.30	1.71	0.35	123.01	1.52		121.85	1.63	0.25
08/28/16	120.65	1.21	0.54	119.95	2.06	0.39				121.60	1.88	
07/06/16	120.11	1.75		119.56	2.45							
05/31/16							121.17	3.36				

WELL NO.	MW-28			MW-29			MW-30			MW-31		
DIAMETER (inches)	2			2			2			2		
WELL DEPTH	12			12			12			13		
SCREEN INTERVAL	2-12			2-12			2-12			3-13		
TOC ELEVATION	124.50			126.83			126.21			121.44		
DATE	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**	**ELEV**	**DTW**	**Diff.**
09/09/16	122.64	1.86	0.08	124.65	2.18	0.05	124.56	1.65	-0.13	115.23	6.21	0.09
08/28/16	122.56	1.94	2.44	124.60	2.23		124.69	1.52	0.32	115.14	6.30	-0.42
07/05/16							124.37	1.84				
05/31/16	120.12	4.38								115.56	5.88	

All Measurements = Feet

No Data = Blank

Table 2. Ground-Water Elevation
Combined Gro Mor Fertilizer & Stock-McGinnes Lumber
Plant City, Florida

WELL NO.	MW-32			MW-33			MW-34			MW-35		
DIAMETER (inches)	2			1			1			1		
WELL DEPTH	12			12.0			12.0			12.0		
SCREEN INTERVAL	2-12			2-12			2-12			2-12		
TOC ELEVATION	121.48			119.28			120.62			121.20		
DATE	ELEV	DTW	Diff.	ELEV	DTW	Diff.	ELEV	DTW	Diff.	ELEV	DTW	Diff.
09/09/16	118.63	2.85	0.03	119.27	0.01	0.10	117.49	3.13	-0.29	119.24	1.96	-0.10
08/28/16	118.60	2.88	1.04	119.17	0.11	1.21	117.78	2.84		119.34	1.86	
07/06/16				117.96	1.32							
05/31/16	117.56	3.92										

WELL NO.	MW-36			MW-37			MW-101			MW-105		
DIAMETER (inches)	1			1			1			1		
WELL DEPTH	12.0			12.0			15			14		
SCREEN INTERVAL	2-12			2-12			5-15			4-14		
TOC ELEVATION	120.91			124.43			123.16			127.34		
DATE	ELEV	DTW	Diff.	ELEV	DTW	Diff.	ELEV	DTW	Diff.	ELEV	DTW	Diff.
09/09/16	118.95	1.96	-0.16	120.93	3.50	0.22	122.41	0.75		124.36	2.98	
08/28/16	119.11	1.80		120.71	3.72							
07/05/16							121.74	1.42				
05/31/16										122.30	5.04	

WELL NO.	MW-106			MW-18R			SW001			SW003		
DIAMETER (inches)	1			2								
WELL DEPTH	14			12								
SCREEN INTERVAL	4-14			2-12								
TOC ELEVATION	123.21			120.97			117.63			116.75		
DATE	ELEV	DTW	Diff.	ELEV	DTW	Diff.	ELEV	DTW	Diff.	ELEV	DTW	Diff.
09/09/16	121.35	1.86	1.55	119.68	1.29		117.46	0.17		116.53	0.22	
05/31/16	119.80	3.41										

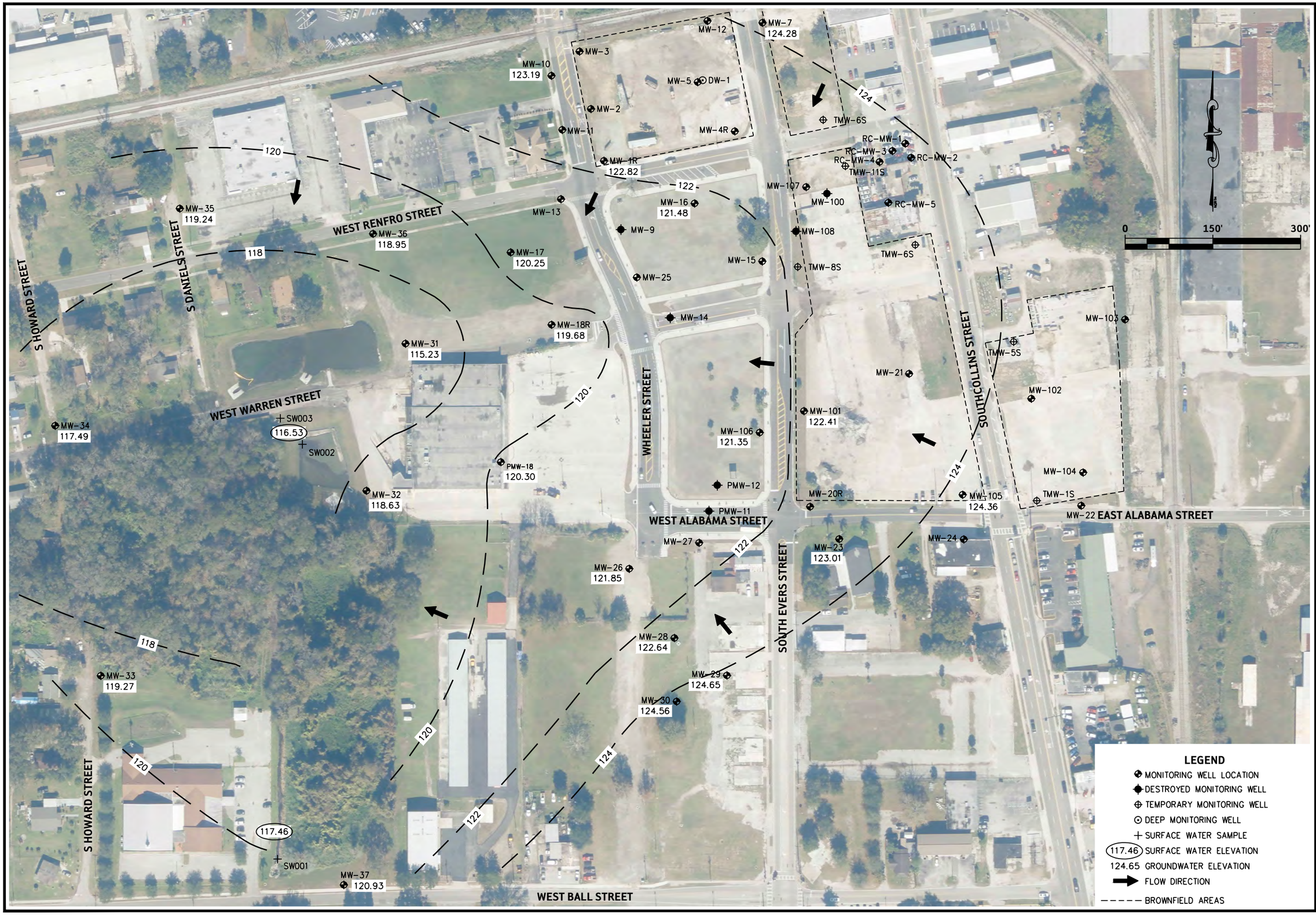
All Measurements = Feet

No Data = Blank

FIGURES

Former Gro-Mor Facility
City of Plant City

CSI Job No. 9680.24 C



CHASTAIN SKILLMAN

CHASTAIN SKILLMAN INC.
PO BOX 97616 OLD HERNANDO RD LAKELAND FLORIDA 33815 (863)644-1602
C.A. NO. 262

REVISION DESCRIPTION

REVISION DATE

REVISION NO.

REV.	DATE:
P-0	09/12/16

DRAWN BY: BLF

CITY OF PLANT CITY
RISK MANAGEMENT OPTION EVALUATION

GROUNDWATER ELEVATION
09-09-2016

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PROJECT NO.
9680.24C

SHEET NO.
FIGURE 1

\\csilkdfs001\Projects\Projects\9680240\CAD\Risk\9680240-CBB-16-SAMPLE LOCATIONS.dwg FIG 1 Sep 12, 2016 11:14am by: rcoyce

CHASTAIN SKILLMAN

CHASTAIN SKILLMAN INC.
PO BOX 97414 OLD HERNANDO RD LAKELAND FLORIDA 33815 (863)644-1602
C.A. NO. 262

REVISION DESCRIPTION
REVISION DATE
REVISION NO.

REV.	DATE:
P-0	09/12/16

DRAWN BY: BLF

CITY OF PLANT CITY
RISK MANAGEMENT OPTION EVALUATION

IRON CONCENTRATIONS IN GROUNDWATER (µg/L)

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PROJECT NO.
9680.24C

SHEET NO.
FIGURE 2

\\csilkdfs001\Projects\Projects\9680.24C\CAD\Risk\9680.24C-CBB-16-SAMPLE LOCATIONS.dwg FIG 2 Sep 12, 2016 11:13am by: rcoyce

CHASTAIN SKILLMAN

CHASTAIN SKILLMAN INC.
PO BOX 97414 OLD HERNANDO ST. LAKELAND FLORIDA 33815 (863)646-1602
C.A. NO. 262

REVISION NO.	REVISION DATE	REVISION DESCRIPTION
	/ /	

REV.	DATE:
P-0	07/25/16

DRAWN BY: BLF

CITY OF PLANT CITY
RISK MANAGEMENT OPTION EVALUATION

MANGANESE CONCENTRATIONS IN GROUNDWATER (µg/L)

© 2015 CHASTAIN SKILLMAN INC.

PROJECT NO.
9680.24C

SHEET NO.
FIGURE 3

\\csikdfs001\Projects\Projects\968024C\CAD\Risk\968024C-CBB-16-SAMPLE LOCATIONS.dwg FIG 3 Sep 12, 2016 11:13am by: rcoyce

ATTACHMENT A

Well Construction Documentation

Former Gro-Mor Facility
City of Plant City

CSI Job No. 9680.24 C

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA

Well Number: MW - 34	Site Name: Former Gro-Mor Facility	FDEP Facility I.D. Number:	Well Install Date(s): 8/26/16

Well Location and Type (check appropriate boxes):
- ☐ On-Site
- ☑ Right-of-Way
- ☐ Off-Site Private Property
- ☐ Above Grade (AG)
- ☑ Flush-to-Grade

If AG, list feet of riser above land surface:

Well Purpose:
- ☐ Perched Monitoring
- ☑ Shallow (Water-Table) Monitoring
- ☐ Intermediate or Deep Monitoring
- ☐ Remediation or Other (describe)

Well Install Method: Direct Push

Surface Casing Install Method: none

Borehole Depth (feet): 12.5	Well Depth (feet): 12	Borehole Diameter (inches): 4	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet

Riser Diameter and Material: 1.0 inch PVC	Riser/Screen Connections: ☑ Flush-Threaded ☐ Other (describe)	Riser Length: 2 feet from 2 feet to 0 feet
Screen Diameter and Material: 1.0 inch PVC	Screen Slot Size: 0.010	Screen Length: 10 feet from 12 feet to 2 feet
1st Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	1st Surface Casing I.D. (inches): na	1st Surface Casing Length: ____ feet from ____ feet to ____ feet
2nd Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	2nd Surface Casing I.D. (inches): na	2nd Surface Casing Length: ____ feet from ____ feet to ____ feet
3rd Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	3rd Surface Casing I.D. (inches): na	3rd Surface Casing Length: ____ feet from ____ feet to ____ feet
Filter Pack Material and Size: 20/40 silica sand	Prepacked Filter Around Screen (check one): ☑ Yes ☐ No	Filter Pack Length: 11 feet from 12 feet to 1 feet
Filter Pack Seal Material and Size: 30/65 fine sand		Filter Pack Seal Length: 0.5 feet from 1 feet to 0.5 feet
Surface Seal Material: portland cement		Surface Seal Length: 0.5 feet from 0.5 feet to 0 feet

WELL DEVELOPMENT DATA

Well Development Date: NA	Well Development Method (check one): ☐ Surge/Pump ☐ Pump ☐ Compressed Air ☐ Other (describe)	
Development Pump Type (check): ☐ Centrifugal ☐ Peristaltic ☐ Submersible ☐ Other (describe)	Depth to Groundwater (before developing in feet): well was dry for 2 hours after completion	
Pumping Rate (gallons per minute):	Maximum Drawdown of Groundwater During Development (feet):	Well Purged Dry (check one): ☐ Yes ☐ No
Pumping Condition (check one): ☐ Continuous ☐ Intermittent	Total Development Water Removed (gallons):	Development Duration (minutes): / Development Water Drummed (check one): ☐ Yes ☐ No
Water Appearance (color and odor) At Start of Development:	Water Appearance (color and odor) At End of Development:	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

Well was dry, could not be developed

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA

Well Number: MW - 35	Site Name: Former Gro-Mor Facility	FDEP Facility I.D. Number:	Well Install Date(s): 8/26/16

Well Location and Type (check appropriate boxes):
- ☐ On-Site
- ☑ Right-of-Way
- ☐ Off-Site Private Property
- ☐ Above Grade (AG)
- ☑ Flush-to-Grade

If AG, list feet of riser above land surface:

Well Purpose:
- ☐ Perched Monitoring
- ☑ Shallow (Water-Table) Monitoring
- ☐ Intermediate or Deep Monitoring
- ☐ Remediation or Other (describe)

Well Install Method: Direct Push

Surface Casing Install Method: none

Borehole Depth (feet): 12.5	Well Depth (feet): 12	Borehole Diameter (inches): 4	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet

Riser Diameter and Material: 1.0 inch PVC	Riser/Screen Connections: ☑ Flush-Threaded ☐ Other (describe)	Riser Length: 2 feet from 2 feet to 0 feet
Screen Diameter and Material: 1.0 inch PVC	Screen Slot Size: 0.010	Screen Length: 10 feet from 12 feet to 2 feet
1st Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	1st Surface Casing I.D. (inches): na	1st Surface Casing Length: ____ feet from ____ feet to ____ feet
2nd Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	2nd Surface Casing I.D. (inches): na	2nd Surface Casing Length: ____ feet from ____ feet to ____ feet
3rd Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	3rd Surface Casing I.D. (inches): na	3rd Surface Casing Length: ____ feet from ____ feet to ____ feet
Filter Pack Material and Size: 20/40 silica sand	Prepacked Filter Around Screen (check one): ☑ Yes ☐ No	Filter Pack Length: 11 feet from 12 feet to 1 feet
Filter Pack Seal Material and Size: 30/65 fine sand		Filter Pack Seal Length: 0.5 feet from 1 feet to 0.5 feet
Surface Seal Material: portland cement		Surface Seal Length: 0.5 feet from 0.5 feet to 0 feet

WELL DEVELOPMENT DATA

Well Development Date: 08/26/16

Well Development Method (check one): ☐ Surge/Pump ☑ Pump ☐ Compressed Air ☐ Other (describe)

Development Pump Type (check): ☐ Centrifugal ☑ Peristaltic ☐ Submersible ☐ Other (describe)

Depth to Groundwater (before developing in feet): 2

Pumping Rate (gallons per minute): 0.25	Maximum Drawdown of Groundwater During Development (feet): 3		Well Purged Dry (check one): ☐ Yes ☑ No
Pumping Condition (check one): ☑ Continuous ☐ Intermittent	Total Development Water Removed (gallons): 7	Development Duration (minutes): 30	Development Water Drummed (check one): ☐ Yes ☑ No
Water Appearance (color and odor) At Start of Development: slight brown tint, no odor		Water Appearance (color and odor) At End of Development: clear, no sediment, no odor	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA

Well Number: MW - 36	Site Name: Former Gro-Mor Facility	FDEP Facility I.D. Number:	Well Install Date(s): 8/26/16

Well Location and Type (check appropriate boxes):
- ☐ On-Site
- ☑ Right-of-Way
- ☐ Off-Site Private Property
- ☐ Above Grade (AG)
- ☑ Flush-to-Grade

If AG, list feet of riser above land surface:

Well Purpose:
- ☐ Perched Monitoring
- ☑ Shallow (Water-Table) Monitoring
- ☐ Intermediate or Deep Monitoring
- ☐ Remediation or Other (describe)

Well Install Method: Direct Push

Surface Casing Install Method: none

Borehole Depth (feet): 12.5	Well Depth (feet): 12	Borehole Diameter (inches): 4	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet

Riser Diameter and Material: 1.0 inch PVC	Riser/Screen Connections: ☑ Flush-Threaded ☐ Other (describe)	Riser Length: 2 feet from 2 feet to 0 feet
Screen Diameter and Material: 1.0 inch PVC	Screen Slot Size: 0.010	Screen Length: 10 feet from 12 feet to 2 feet
1st Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	1st Surface Casing I.D. (inches): na	1st Surface Casing Length: ____ feet from ____ feet to ____ feet
2nd Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	2nd Surface Casing I.D. (inches): na	2nd Surface Casing Length: ____ feet from ____ feet to ____ feet
3rd Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	3rd Surface Casing I.D. (inches): na	3rd Surface Casing Length: ____ feet from ____ feet to ____ feet
Filter Pack Material and Size: 20/40 silica sand	Prepacked Filter Around Screen (check one): ☑ Yes ☐ No	Filter Pack Length: 11 feet from 12 feet to 1 feet
Filter Pack Seal Material and Size: 30/65 fine sand		Filter Pack Seal Length: 0.5 feet from 1 feet to 0.5 feet
Surface Seal Material: portland cement		Surface Seal Length: 0.5 feet from 0.5 feet to 0 feet

WELL DEVELOPMENT DATA

Well Development Date: 08/26/16

Well Development Method (check one): ☐ Surge/Pump ☑ Pump ☐ Compressed Air ☐ Other (describe)

Development Pump Type (check): ☐ Centrifugal ☑ Peristaltic ☐ Submersible ☐ Other (describe)

Depth to Groundwater (before developing in feet): 2

Pumping Rate (gallons per minute): 0.25	Maximum Drawdown of Groundwater During Development (feet): 3	Well Purged Dry (check one): ☐ Yes ☑ No

Pumping Condition (check one): ☑ Continuous ☐ Intermittent	Total Development Water Removed (gallons): 9	Development Duration (minutes): 35	Development Water Drummed (check one): ☐ Yes ☑ No

Water Appearance (color and odor) At Start of Development: brown, milky white tint, no odor	Water Appearance (color and odor) At End of Development: clear, no sediment, no odor

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

Florida Department of Environmental Protection - Division of Waste Management - Bureau of Petroleum Storage Systems

WELL CONSTRUCTION AND DEVELOPMENT LOG

WELL CONSTRUCTION DATA

Well Number: MW - 37	Site Name: Former Gro-Mor Facility	FDEP Facility I.D. Number:	Well Install Date(s): 8/26/16

Well Location and Type (check appropriate boxes):
- ☐ On-Site
- ☑ Right-of-Way
- ☐ Off-Site Private Property
- ☐ Above Grade (AG)
- ☑ Flush-to-Grade

If AG, list feet of riser above land surface:

Well Purpose:
- ☐ Perched Monitoring
- ☑ Shallow (Water-Table) Monitoring
- ☐ Intermediate or Deep Monitoring
- ☐ Remediation or Other (describe)

Well Install Method: Direct Push

Surface Casing Install Method: none

Borehole Depth (feet): 12.5	Well Depth (feet): 12	Borehole Diameter (inches): 4	Manhole Diameter (inches): 8	Well Pad Size: 2 feet by 2 feet

Riser Diameter and Material: 1.0 inch PVC	Riser/Screen Connections: ☑ Flush-Threaded ☐ Other (describe)	Riser Length: 2 feet from 2 feet to 0 feet
Screen Diameter and Material: 1.0 inch PVC	Screen Slot Size: 0.010	Screen Length: 10 feet from 12 feet to 2 feet
1st Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	1st Surface Casing I.D. (inches): na	1st Surface Casing Length: ___ feet from ___ feet to ___ feet
2nd Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	2nd Surface Casing I.D. (inches): na	2nd Surface Casing Length: ___ feet from ___ feet to ___ feet
3rd Surface Casing Material: na also check: ☐ Permanent ☐ Temporary	3rd Surface Casing I.D. (inches): na	3rd Surface Casing Length: ___ feet from ___ feet to ___ feet
Filter Pack Material and Size: 20/40 silica sand	Prepacked Filter Around Screen (check one): ☑ Yes ☐ No	Filter Pack Length: 11 feet from 12 feet to 1 feet
Filter Pack Seal Material and Size: 30/65 fine sand		Filter Pack Seal Length: 0.5 feet from 1 feet to 0.5 feet
Surface Seal Material: portland cement		Surface Seal Length: 0.5 feet from 0.5 feet to 0 feet

WELL DEVELOPMENT DATA

Well Development Date: 08/26/16	Well Development Method (check one): ☐ Surge/Pump ☑ Pump ☐ Compressed Air ☐ Other (describe)	
Development Pump Type (check): ☐ Centrifugal ☑ Peristaltic ☐ Submersible ☐ Other (describe)	Depth to Groundwater (before developing in feet): 2	
Pumping Rate (gallons per minute): 0.25	Maximum Drawdown of Groundwater During Development (feet): 3	Well Purged Dry (check one): ☐ Yes ☑ No
Pumping Condition (check one): ☑ Continuous ☐ Intermittent	Total Development Water Removed (gallons): 6	Development Duration (minutes): 25
Development Water Drummed (check one): ☐ Yes ☑ No		
Water Appearance (color and odor) At Start of Development: dark brown, milky tint, no odor	Water Appearance (color and odor) At End of Development: clear, no sediment, no odor	

WELL CONSTRUCTION OR DEVELOPMENT REMARKS

BORING LOG

Boring / Well Number:	Permit Number:	FDEP Facility Identification Number:
MW-34	853888	

Site Name:	Borehole Start Date: 8/26/2016	Borehole Start Time: 10:20 ■ AM ☐ PM
Former Gro-Mor Facility	Borehole End Date: 8/26/2016	Borehole End Time: 11:15 ■ AM ☐ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
Chastain-Skillman, Inc	Charles Browning	

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
NET	4 inches	4	12.5

Drilling Methods:	Apparent Borehole DTW (in feet from soil moisture content):	Measured well DTW (in feet below casing after recharge):	OVA (list model and check type):
Hand Auger/ Direct Push	6.0	NA	NA ☐ FID ☐ PID

Disposition of Drill Cuttings [check methods]: ☐ Drum ■ Spread ☐ Backfill ☐ Stockpile ☐ Other

Borehole Completion (check one): ■ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval	Organic Vapor Unfiltered	Organic Vapor Filtered	Organic Vapor Net	Depth (feet)	Sample Description (include grain size, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample ID number and depth)
Hand Auger					0	Asphalt and road base			
	0-1				1	Sand: black to dark grey, fine grained to silty with	SM	M	
	1-2				2	limerock and rock fragments, loose, no odor			
	2-3				3	Sand: grey to olive grey, fine grain to slightly silty,	SM	M	
	3-4				4	loose, slight methane odor			
	4-5				5				
Direct Push	5-6				6	Clay: light grey, sandy with very fine grain,	CL	W	
	6-7				7	plastic, slight methane odor			
	7-8				8				
	8-9				9				
	9-10				10				
	10-11				11				
	11-12				12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

NT: not tested

BORING LOG

Boring / Well Number:	Permit Number:	FDEP Facility Identification Number:
MW-35	853888	

Site Name:	Borehole Start Date: 8/26/2016	Borehole Start Time: 8:55 ■ AM ☐ PM
Former Gro-Mor Facility	Borehole End Date: 8/26/2016	Borehole End Time: 9:15 ■ AM ☐ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
Chastain-Skillman, Inc	Charles Browning	

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
NET	none	4	12.5

Drilling Methods:	Apparent Borehole DTW (in feet from soil moisture content):	Measured well DTW (in feet below casing after recharge):	OVA (list model and check type):
Hand Auger/ Direct Push	2.0	2	NA ☐ FID ☐ PID

Disposition of Drill Cuttings [check methods]: ☐ Drum ■ Spread ☐ Backfill ☐ Stockpile ☐ Other

Borehole Completion (check one): ■ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval	Organic Vapor Unfiltered	Organic Vapor Filtered	Organic Vapor Net	Depth (feet)	Sample Description (include grain size, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample ID number and depth)
Hand Auger					0	Grass and Sod			
	0-1				1	Sand: black to dark grey, fine grained to silty with	SM	M	
	1-2				2	roots and organic debris, loose, no odor			
	2-3				3	Sand: light grey to very pale orange, fine grain,	SW	W	
	3-4				4	well sorted, loose, no odor			
	4-5				5				
Direct Push	5-6				6	Sand: brown to olive grey, with clay, loose to	SC	S	
	6-7				7	plastic, slight methane odor			
	7-8				8				
	8-9				9				
	9-10				10				
	10-11				11				
	11-12				12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

NT: not tested

BORING LOG

Boring / Well Number:	Permit Number:	FDEP Facility Identification Number:
MW-36	853888	

Site Name:	Borehole Start Date: 8/26/2016	Borehole Start Time: 9:35 ■ AM ☐ PM
Former Gro-Mor Facility	Borehole End Date: 8/26/2016	Borehole End Time: 10:15 ■ AM ☐ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
Chastain-Skillman, Inc	Charles Browning	

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
NET	none	4	12.5

Drilling Methods:	Apparent Borehole DTW	Measured well DTW	OVA (list model and check type):
Hand Auger/ Direct Push	(in feet from soil moisture content): 3.0	(in feet below casing after recharge): 2	NA ☐ FID ☐ PID

Disposition of Drill Cuttings [check methods]: ☐ Drum ■ Spread ☐ Backfill ☐ Stockpile ☐ Other

Borehole Completion (check one): ■ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval	Organic Vapor Unfiltered	Organic Vapor Filtered	Organic Vapor Net	Depth (feet)	Sample Description (include grain size, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample ID number and depth)
Hand Auger					0	Grass and Sod			
	0-1				1	Sand: black to dark grey, fine grained to silty with	SM	M	
	1-2				2	roots and organic debris, loose, no odor			
	2-3				3	Sand: light grey to very pale orange, fine grain,	SW	W	
	3-4				4	well sorted, loose, no odor			
	4-5				5				
Direct Push	5-6				6				
	6-7				7				
	7-8				8	Sand: brown to dark grey, fine grained to clayey,	SC	S	
	8-9				9	slighlty plastic, no odor			
	9-10				10				
	10-11				11				
	11-12				12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

NT: not tested

BORING LOG

Boring / Well Number:	Permit Number:	FDEP Facility Identification Number:
MW-37	853888	

Site Name:	Borehole Start Date: 8/26/2016	Borehole Start Time: 11:15 ■ AM ☐ PM
Former Gro-Mor Facility	Borehole End Date: 8/26/2016	Borehole End Time: 12:00 ☐ AM ■ PM

Environmental Contractor:	Geologist's Name:	Environmental Technician's Name:
Chastain-Skillman, Inc	Charles Browning	

Drilling Company:	Pavement Thickness (inches):	Borehole Diameter (inches):	Borehole Depth (feet):
NET	4 inches	4	12.5

Drilling Methods:	Apparent Borehole DTW (in feet from soil moisture content):	Measured well DTW (in feet below casing after recharge):	OVA (list model and check type):
Hand Auger/ Direct Push	2.0	2	NA ☐ FID ☐ PID

Disposition of Drill Cuttings [check methods]: ☐ Drum ■ Spread ☐ Backfill ☐ Stockpile ☐ Other

Borehole Completion (check one): ■ Well ☐ Grout ☐ Bentonite ☐ Backfill ☐ Other (describe)

Sample Type	Sample Depth Interval	Organic Vapor Unfiltered	Organic Vapor Filtered	Organic Vapor Net	Depth (feet)	Sample Description (include grain size, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample ID number and depth)
Hand Auger					0	Grass and Sod			
	0-1				1	Sand: black to dark grey, fine grained, with loose	SM	M	
	1-2				2	rocks and organic debris, loose, no odor			
	2-3				3	Sand: light grey , fine grain to silty,	SM	W	
	3-4				4	loose, no odor			
	4-5				5				
Direct Push	5-6				6	Clay: brown to olive grey, with fine grained sand,	CL	S	
	6-7				7	loose to slightly plasticplastic, methane odor			
	7-8				8				
	8-9				9				
	9-10				10				
	10-11				11				
	11-12				12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

NT: not tested

STATE OF FLORIDA WELL COMPLETION REPORT

☒ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River
☐ DEP
☐ Delegated Authority (If Applicable) _____

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Date Stamp
Received:
Aug 29, 2016 10:58 am
Official Use Only

1. *Permit Number 853888 *CUP/WUP Number _____ *DID Number _____ 62-524 Delineation No. _____

2. *Number of permitted wells constructed, repaired, or abandoned 8 *Number of permitted wells not constructed, repaired, or abandoned 0

3. *Owner's Name CITY OF PLANT CITY 4. *Completion Date 08/26/2016 5. Florida Unique ID _____

6. RENFRO/BALL STREET AREAS PLANT CITY
*Well Location - Address, Road Name or Number, City, ZIP

7. *County Hillsborough *Section 29 Land Grant _____ *Township 28 *Range 22

8. Latitude 28 00 46.07 Longitude 82 07 36.74

9. Data Obtained From: ___ GPS X Map ___ Survey Datum: ___ NAD 27 X NAD 83 ___ WGS 84

10. *Type of Work: X Construction ___ Repair ___ Modification ___ Abandonment

11. *Specify Intended Use(s) of Well(s):
___ Domestic
___ Bottled Water Supply
___ Public Water Supply (Limited Use/DOH)
___ Public Water Supply (Community or Non-Community/DEP)
___ Class I Injection
___ Landscape Irrigation
___ Recreation Area Irrigation
___ Agricultural Irrigation
___ Livestock
___ Nursery Irrigation
___ Commercial/Industrial
___ Golf Course Irrigation
___ Site Investigation
X Monitoring
___ Test
___ Earth-Coupled Geothermal
___ HVAC Supply
___ HVAC Return

Class V Injection: ___ Recharge ___ Commercial/Industrial Disposal ___ Aquifer Storage and Recovery ___ Drainage
Remediation: ___ Recovery ___ Air Sparge ___ Other (Describe) _____
___ Other (Describe) _____

12. *Drill Method: ___ Auger ___ Cable Tool ___ Rotary ___ Combination (Two or More Methods) ___ Jetted ___ Sonic
___ Horizontal Drilling X Hydraulic Point (Direct Push) ___ Other _____

13. *Measured Static Water Level 2.5 ft. Measured Pumping Water Level 3 ft. After 5 Hours at 1 GPM

14. *Measuring Point (Describe) TOP OF CAS Which is 0.5 ft. ___ Above X Below Land Surface *Flowing: ___ Yes ___ No

15. *Casing Material: ___ Black Steel ___ Galvanized X PVC ___ Stainless Steel ___ Not Cased ___ Other _____

16. *Total Well Depth 12.0 ft. Cased Depth 2.0 ft. *Open Hole: From ___ To ___ ft. *Screen: From 2 To 12 ft. Slot Size _____

17. *Abandonment: ___ Other (Explain) _____
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

18. *Surface Casing Diameter and Depth:
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

19. *Primary Casing Diameter and Depth:
Dia 1.00 in. From 0.00 ft. To 2.00 ft. No. of Bags 1.00 Seal Material (Check One): X Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

20. *Liner Casing Diameter and Depth:
Dia 1.00 in. From 2.00 ft. To 12.00 ft. No. of Bags 1.00 Seal Material (Check One): ___ Neat Cement ___ Bentonite X Other Sand
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

21. *Telescope Casing Diameter and Depth:
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

22. Pump Type (If Known):
___ Centrifugal ___ Jet ___ Submersible ___ Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth ___ ft. Intake Depth ___ ft.

23. Chemical Analysis (When Required):
Iron ___ ppm Sulfate ___ ppm Chloride ___ ppm
___ Laboratory Test ___ Field Test Kit

24. Water Well Contractor:

*Contractor Name Ross A. Chinander *License Number 11093 E-mail Address netross@tampabay.rr.com

*Contractor's Signature Digitally Signed *Driller's Name (Print or Type) ALEXANDER T STACKPOOLE
(I certify that the information provided in this report is accurate and true.)

FORM LEG-R.005.02 (06/10) Rule 40D-3.411 (1)(a), F.A.C. EFFECTIVE DATE: 9/12/2010

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

***DRILL CUTTINGS LOG** (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From	To	Color	Grain Size (F, M, C)	Material
0.0 ft.	5.0 ft.	BROWN	VERY FINE	SAND
5.0 ft.	12.0 ft.	BROWN	VERY FINE	SANDY CLAY
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			

Comments: Finish: SCREENED OR SANDPOINT

INSTALLATION OF MW-34.

***Detailed Site Map of Well Location**

N

Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources within 500 ft. of well.

STATE OF FLORIDA WELL COMPLETION REPORT

☒ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River
☐ DEP
☐ Delegated Authority (If Applicable) _____

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Date Stamp
Received:
Aug 29, 2016 11:03 am
Official Use Only

1. *Permit Number 853888 *CUP/WUP Number _____ *DID Number _____ 62-524 Delineation No. _____

2. *Number of permitted wells constructed, repaired, or abandoned 8 *Number of permitted wells not constructed, repaired, or abandoned 0

3. *Owner's Name CITY OF PLANT CITY 4. *Completion Date 08/26/2016 5. Florida Unique ID _____

6. RENFRO/BALL STREET AREAS PLANT CITY
*Well Location - Address, Road Name or Number, City, ZIP

7. *County Hillsborough *Section 29 Land Grant _____ *Township 28 *Range 22

8. Latitude 28 00 44.66 Longitude 82 07 31.91

9. Data Obtained From: ____ GPS X Map ____ Survey Datum: ____ NAD 27 X NAD 83 ____ WGS 84

10. *Type of Work: X Construction ____ Repair ____ Modification ____ Abandonment

11. *Specify Intended Use(s) of Well(s):
____ Domestic
____ Bottled Water Supply
____ Public Water Supply (Limited Use/DOH)
____ Public Water Supply (Community or Non-Community/DEP)
____ Class I Injection
____ Landscape Irrigation
____ Recreation Area Irrigation
____ Agricultural Irrigation
____ Livestock
____ Nursery Irrigation
____ Commercial/Industrial
____ Golf Course Irrigation
____ Site Investigation
X Monitoring
____ Test
____ Earth-Coupled Geothermal
____ HVAC Supply
____ HVAC Return

Class V Injection: ____ Recharge ____ Commercial/Industrial Disposal ____ Aquifer Storage and Recovery ____ Drainage
Remediation: ____ Recovery ____ Air Sparge ____ Other (Describe) _____
____ Other (Describe) _____

12. *Drill Method: ____ Auger ____ Cable Tool ____ Rotary ____ Combination (Two or More Methods) ____ Jetted ____ Sonic
____ Horizontal Drilling X Hydraulic Point (Direct Push) ____ Other _____

13. *Measured Static Water Level 2.5 ft. Measured Pumping Water Level 3 ft. After 5 Hours at 1 GPM

14. *Measuring Point (Describe) TOP OF CAS Which is 0.5 ft. ____ Above X Below Land Surface *Flowing: ____ Yes ____ No

15. *Casing Material: ____ Black Steel ____ Galvanized X PVC ____ Stainless Steel ____ Not Cased ____ Other _____

16. *Total Well Depth 12.0 ft Cased Depth 2.0 ft. *Open Hole: From ____ To ____ ft. *Screen: From 2 To 12 ft. Slot Size _____

17. *Abandonment: ____ Other (Explain) _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____

18. *Surface Casing Diameter and Depth:
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____

19. *Primary Casing Diameter and Depth:
Dia 1.00 in. From 0.00 ft. To 2.00 ft. No. of Bags 1.00 Seal Material (Check One): X Neat Cement ____ Bentonite ____ Other _____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____

20. *Liner Casing Diameter and Depth:
Dia 1.00 in. From 2.00 ft. To 12.00 ft. No. of Bags 1.00 Seal Material (Check One): ____ Neat Cement ____ Bentonite X Other Sand
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____

21. *Telescope Casing Diameter and Depth:
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____
Dia ____ in. From ____ ft. To ____ ft. No. of Bags ____ Seal Material (Check One): ____ Neat Cement ____ Bentonite ____ Other _____

22. Pump Type (If Known):
____ Centrifugal ____ Jet ____ Submersible ____ Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth ____ ft. Intake Depth ____ ft.

23. Chemical Analysis (When Required):
Iron ____ ppm Sulfate ____ ppm Chloride ____ ppm
____ Laboratory Test ____ Field Test Kit

24. Water Well Contractor:

*Contractor Name Rose A. Chinander *License Number 11093 E-mail Address netrose@tampabay.rr.com

*Contractor's Signature Digitally Signed
(I certify that the information provided in this report is accurate and true.)
*Driller's Name (Print or Type) ALEXANDER T STACKPOOLE

FORM LEG-R.005.02 (06/10) Rule 40D-3.411 (1)(a), F.A.C. EFFECTIVE DATE: 9/12/2010

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

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P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

***DRILL CUTTINGS LOG** (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From	To	Color	Grain Size (F, M, C)	Material
0.0 ft.	5.0 ft.	BROWN	VERY FINE	SAND
5.0 ft.	12.0 ft.	BROWN	VERY FINE	SANDY CLAY
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			

Comments. Finish: SCREENED OR SANDPOINT

INSTALLATION OF MW-35.

***Detailed Site Map of Well Location**

N

Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources within 500 ft. of well.

STATE OF FLORIDA WELL COMPLETION REPORT

☒ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River
☐ DEP
☐ Delegated Authority (If Applicable) _____

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Date Stamp
Received:
Aug 29, 2016 11:05 am
Official Use Only

1. *Permit Number 853888 *CUP/WUP Number _____ *DID Number _____ 62-524 Delineation No _____

2. *Number of permitted wells constructed, repaired, or abandoned 8 *Number of permitted wells not constructed, repaired, or abandoned 0

3. *Owner's Name CITY OF PLANT CITY 4. *Completion Date 08/26/2016 5. Florida Unique ID _____

6. RENFRO/BALL STREET AREAS PLANT CITY
*Well Location - Address, Road Name or Number, City, ZIP

7. *County Hillsborough *Section 29 Land Grant _____ *Township 28 *Range 22

8. Latitude 28 00 41.46 Longitude 82 07 38.21

9. Data Obtained From: ___ GPS X Map ___ Survey Datum: ___ NAD 27 X NAD 83 ___ WGS 84

10. *Type of Work: X Construction ___ Repair ___ Modification ___ Abandonment

11. *Specify Intended Use(s) of Well(s):
___ Domestic
___ Bottled Water Supply
___ Public Water Supply (Limited Use/DOH)
___ Public Water Supply (Community or Non-Community/DEP)
___ Class I Injection
___ Landscape Irrigation
___ Recreation Area Irrigation
___ Agricultural Irrigation
___ Livestock
___ Nursery Irrigation
___ Commercial/Industrial
___ Golf Course Irrigation
___ Site Investigation
X Monitoring
___ Test
___ Earth-Coupled Geothermal
___ HVAC Supply
___ HVAC Return

Class V Injection: ___ Recharge ___ Commercial/Industrial Disposal ___ Aquifer Storage and Recovery ___ Drainage
Remediation: ___ Recovery ___ Air Sparge ___ Other (Describe) _____
___ Other (Describe) _____

12. *Drill Method: ___ Auger ___ Cable Tool ___ Rotary ___ Combination (Two or More Methods) ___ Jetted ___ Sonic
___ Horizontal Drilling X Hydraulic Point (Direct Push) ___ Other _____

13. *Measured Static Water Level 2.5 ft. Measured Pumping Water Level 3 ft. After 5 Hours at 1 GPM

14. *Measuring Point (Describe) TOP OF CAS Which is 0.5 ft ___ Above X Below Land Surface *Flowing: ___ Yes ___ No

15. *Casing Material: ___ Black Steel ___ Galvanized X PVC ___ Stainless Steel ___ Not Cased ___ Other _____

16. *Total Well Depth 12.0 ft. Cased Depth 2.0 ft. *Open Hole: From ___ To ___ ft. *Screen: From 2 To 12 ft. Slot Size _____

17. *Abandonment: ___ Other (Explain) _____
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

18. *Surface Casing Diameter and Depth:
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

19. *Primary Casing Diameter and Depth:
Dia 1.00 in. From 0.00 ft. To 2.00 ft. No. of Bags 1.00 Seal Material (Check One): X Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

20. *Liner Casing Diameter and Depth:
Dia 1.00 in. From 2.00 ft. To 12.00 ft. No. of Bags 1.00 Seal Material (Check One): ___ Neat Cement ___ Bentonite X Other Sand
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

21. *Telescope Casing Diameter and Depth:
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

22. Pump Type (If Known):
___ Centrifugal ___ Jet ___ Submersible ___ Turbine
Horsepower ___ Pump Capacity (GPM) ___
Pump Depth ___ ft. Intake Depth ___ ft.

23. Chemical Analysis (When Required):
Iron ___ ppm Sulfate ___ ppm Chloride ___ ppm
___ Laboratory Test ___ Field Test Kit

24. Water Well Contractor:

*Contractor Name Ross A. Chinander *License Number 11093 E-mail Address netross@tampabay.rr.com

*Contractor's Signature Digitally Signed *Driller's Name (Print or Type) ALEXANDER T STACKPOOLE
(I certify that the information provided in this report is accurate and true.)

FORM LEG-R.005.02 (06/10) Rule 40D-3.411 (1)(a), F.A.C. EFFECTIVE DATE: 9/12/2010

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
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SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

***DRILL CUTTINGS LOG** (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From	To	Color	Grain Size (F, M, C)	Material
0.0 ft.	5.0 ft.	BROWN	VERY FINE	SAND
5.0 ft.	12.0 ft.	BROWN	VERY FINE	SANDY CLAY
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
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ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			

Comments: Finish: SCREENED OR SANDPOINT

INSTALLATION OF MW-36.

***Detailed Site Map of Well Location**

N

Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources within 500 ft. of well.

STATE OF FLORIDA WELL COMPLETION REPORT

☒ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River
☐ DEP
☐ Delegated Authority (If Applicable) _____

PLEASE, FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

Date Stamp
Received:
Aug 29, 2016 11:06 am
Official Use Only

1. *Permit Number 853888 *CUP/WUP Number _____ *DID Number _____ 62-524 Delineation No. _____

2. *Number of permitted wells constructed, repaired, or abandoned 8 *Number of permitted wells not constructed, repaired, or abandoned 0

3. *Owner's Name CITY OF PLANT CITY 4. *Completion Date 08/26/2016 5. Florida Unique ID _____

6. RENFRO/BALL STREET AREAS PLANT CITY
*Well Location - Address, Road Name or Number, City, ZIP

7. *County Hillsborough *Section 29 Land Grant _____ *Township 28 *Range 22

8. Latitude 28 00 40.87 Longitude 82 07 37.99

9. Data Obtained From: ___ GPS X Map ___ Survey Datum: ___ NAD 27 X NAD 83 ___ WGS 84

10. *Type of Work: X Construction ___ Repair ___ Modification ___ Abandonment

11. *Specify Intended Use(s) of Well(s):
___ Domestic
___ Bottled Water Supply
___ Public Water Supply (Limited Use/DOH)
___ Public Water Supply (Community or Non-Community/DEP)
___ Class I Injection
___ Landscape Irrigation
___ Recreation Area Irrigation
___ Agricultural Irrigation
___ Livestock
___ Nursery Irrigation
___ Commercial/Industrial
___ Golf Course Irrigation
___ Site Investigation
X Monitoring
___ Test
___ Earth-Coupled Geothermal
___ HVAC Supply
___ HVAC Return

Class V Injection: ___ Recharge ___ Commercial/Industrial Disposal ___ Aquifer Storage and Recovery ___ Drainage
Remediation: ___ Recovery ___ Air Sparge ___ Other (Describe) _____
___ Other (Describe) _____

12. *Drill Method: ___ Auger ___ Cable Tool ___ Rotary ___ Combination (Two or More Methods) ___ Jetted ___ Sonic
___ Horizontal Drilling X Hydraulic Point (Direct Push) ___ Other _____

13. *Measured Static Water Level 2.5 ft. Measured Pumping Water Level 3 ft. After 5 Hours at 1 GPM

14. *Measuring Point (Describe) TOP OF CAS Which is 0.5 ft ___ Above X Below Land Surface *Flowing: ___ Yes ___ No

15. *Casing Material: ___ Black Steel ___ Galvanized X PVC ___ Stainless Steel ___ Not Cased ___ Other _____

16. *Total Well Depth 12.0 ft. Cased Depth 2.0 ft. *Open Hole: From ___ To ___ ft. *Screen: From 2 To 12 ft. Slot Size _____

17. *Abandonment: ___ Other (Explain) _____
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

18. *Surface Casing Diameter and Depth:
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

19. *Primary Casing Diameter and Depth:
Dia 1.00 in. From 0.00 ft. To 2.00 ft. No. of Bags 1.00 Seal Material (Check One): X Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

20. *Liner Casing Diameter and Depth:
Dia 1.00 in. From 2.00 ft. To 12.00 ft. No. of Bags 1.00 Seal Material (Check One): ___ Neat Cement ___ Bentonite X Other Sand
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

21. *Telescope Casing Diameter and Depth:
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___
Dia ___ in. From ___ ft. To ___ ft. No. of Bags ___ Seal Material (Check One): ___ Neat Cement ___ Bentonite ___ Other ___

22. Pump Type (If Known):
___ Centrifugal ___ Jet ___ Submersible ___ Turbine
Horsepower _____ Pump Capacity (GPM) _____
Pump Depth ___ ft. Intake Depth ___ ft.

23. Chemical Analysis (When Required):
Iron ___ ppm Sulfate ___ ppm Chloride ___ ppm
___ Laboratory Test ___ Field Test Kit

24. Water Well Contractor:

*Contractor Name Ross A. Chinander *License Number 11093 E-mail Address netrose@tampabay.rr.com

*Contractor's Signature Digitally Signed *Driller's Name (Print or Type) ALEXANDER T STACKPOOLE
(I certify that the information provided in this report is accurate and true.)

FORM LEG-R.005.02 (06/10) Rule 40D-3.411 (1)(a), F.A.C. EFFECTIVE DATE: 9/12/2010

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152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
WWW.SFWMD.GOV

SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

***DRILL CUTTINGS LOG** (Examine cuttings every 20 ft. or at formation changes. Note cavities and depth to producing zone. Grain Size: F=Fine, M=Medium, and C=Coarse)

From	To	Color	Grain Size (F, M, C)	Material
0.0 ft.	5.0 ft.	BROWN	VERY FINE	SAND
5.0 ft.	12.0 ft.	BROWN	VERY FINE	SANDY CLAY
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			
ft.	ft.			

Comments. Finish: SCREENED OR SANDPOINT

INSTALLATION OF MW-37.

***Detailed Site Map of Well Location**

N

Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources within 500 ft. of well.

STATE OF FLORIDA PERMIT APPLICATION TO CONSTRUCT, REPAIR, MODIFY, OR ABANDON A WELL

☒ Southwest
☐ Northwest
☐ St. Johns River
☐ South Florida
☐ Suwannee River
☐ DEP
☐ Delegated Authority (If Applicable) _____

PLEASE FILL OUT ALL APPLICABLE FIELDS
(*Denotes Required Fields Where Applicable)

The water well contractor is responsible for completing this form and forwarding the permit application to the appropriate delegated authority where applicable.

Permit No. 853888
Florida Unique ID _____
Permit Stipulations Required (See Attached) 23, 39
62-524 Quad No. Q3318 Delineation No. _____
CUP/WUP Application No. _____

ABOVE THIS LINE FOR OFFICIAL USE ONLY

1. CITY OF PLANT CITY (*Owner, Legal Name if Corporation) 302 W. REYNOLDS STREET (*Address) PLANT CITY (*City) FL (*State) 33563 (*ZIP) (813) 659-4125 (*Telephone Number)
2. RENFRO/BALL STREET AREAS (*Well Location - Address, Road Name or Number, City) PLANT CITY
3. _____ (*Parcel ID No. (PIN) or Alternate Key (Circle One)) Lot _____ Block _____ Unit _____
4. 29 (*Section or Land Grant) 28 (*Township) 22 (*Range) Hillsborough (*County) _____ (Subdivision) Check if 62-524: ___ Yes X No
5. Ross A. Chinander (*Water Well Contractor) 11093 (*License Number) (813) 655-3612 (*Telephone Number) netrose@tampabay.rr.com (E-mail Address)
6. 12435 JESS WALDEN ROAD (*Water Well Contractor's Address) DOVER (City) FL (State) 33527 (ZIP)

7. *Type of Work: X Construction ___ Repair ___ Modification ___ Abandonment _____ (*Reason for Repair, Modification, or Abandonment)
8. *Number of Proposed Wells 8
9. *Specify Intended Use(s) of Well(s):

___ Domestic
___ Bottled Water Supply
___ Public Water Supply (Limited Use/DOH)
___ Public Water Supply (Community or Non-Community/DEP)
___ Class I Injection
___ Landscape Irrigation
___ Recreation Area Irrigation
___ Agricultural Irrigation
___ Livestock
___ Nursery Irrigation
___ Commercial/Industrial
___ Golf Course Irrigation
___ Site Investigation
X Monitoring
___ Test
___ Earth-Coupled Geothermal
___ HVAC Supply
___ HVAC Return

Class V Injection: ___ Recharge ___ Commercial/Industrial Disposal ___ Aquifer Storage and Recovery ___ Drainage

Remediation: ___ Recovery ___ Air Sparge ___ Other (Describe) _____

___ Other (Describe) _____ (Note: Not all types of wells are permitted by a given permitting authority)

Date Stamp
Received:
Aug 23, 2016 2:06 pm
Official Use Only

10. *Distance from Septic System if ≤200 ft. 0 11. Facility Description STREET ROW 12. Estimated Start Date 08/26/2016
13. *Estimated Well Depth 12 ft. *Estimated Casing Depth 2.0 ft. *Primary Casing Diameter 1 in. Open Hole: From ___ To ___ ft.
14. Estimated Screen Interval: From 2.0 To 12.0 ft.
15. *Primary Casing Material: ___ Black Steel ___ Galvanized X PVC ___ Stainless Steel ___ Not Cased ___ Other: _____
16. Secondary Casing: ___ Telescope Casing ___ Liner ___ Surface Casing Diameter ___ in.
17. Secondary Casing Material: ___ Black Steel ___ Galvanized ___ PVC ___ Stainless Steel ___ Other _____
18. *Method of Construction, Repair, or Abandonment: ___ Auger ___ Cable Tool ___ Jetted ___ Rotary ___ Sonic ___ Combination (Two or More Methods) ___ Hand Driven (Well Point, Sand Point) X Hydraulic Point (Direct Push) ___ Horizontal Drilling ___ Plugged by Approved Method ___ Other (Describe) _____
19. Proposed Grouting Interval for the Primary, Secondary, and Additional Casing:
From 0.0 To 2.0 Seal Material (___ Bentonite X Neat Cement ___ Other ___)
From ___ To ___ Seal Material (___ Bentonite ___ Neat Cement ___ Other ___)
From ___ To ___ Seal Material (___ Bentonite ___ Neat Cement ___ Other ___)
From ___ To ___ Seal Material (___ Bentonite ___ Neat Cement ___ Other ___)
20. Indicate total number of existing wells on site 1 List number of existing unused wells on site 0
21. *Is this well or any existing well or water withdrawal on the owner's contiguous property covered under a Consumptive/Water Use Permit (CUP/WUP) or CUP/WUP Application? ___ Yes X No If yes, complete the following: CUP/WUP No. _____ District Well ID No. _____
22. Latitude 28 00 40.87 Longitude 82 07 37.99
23. Data Obtained From: ___ GPS X Map ___ Survey Datum: ___ NAD 27 X NAD 83 ___ WGS 84

I hereby certify that I will comply with the applicable rules of Title 40, Florida Administration Code, and that a water use permit or artificial recharge permit, if needed, has been or will be obtained prior to commencement of well construction. I further certify that all information provided in this application is accurate and that I will obtain necessary approval from other federal, state, or local governments, if applicable. I agree to provide a well completion report to the District within 30 days after completion of the construction, repair, modification, or abandonment authorized by this permit, or the permit expiration, whichever occurs first.

I certify that I am the owner of the property, that the information provided is accurate, and that I am aware of my responsibilities under Chapter 373, Florida Statutes, to maintain or properly abandon this well, or, I certify that I am the agent for the owner, that the information provided is accurate, and that I have informed the owner of his responsibilities as stated above. Owner consents to allowing personnel of this WMD or Delegated Authority access to the well site during the construction, repair, modification, or abandonment authorized by this permit.

Digitally Signed (*Signature of Contractor) 11093 (*License No.) Digitally Signed (*Signature of Owner or Agent) 8/23/2016 (*Date)

DO NOT WRITE BELOW THIS LINE - FOR OFFICIAL USE ONLY

Approval Granted By Automatically Issued Issue Date 08/23/2016 Expiration Date 11/21/2016 Hydrologist Approval _____ (Initials)

Fee Received $50.00 Receipt No. 26205689 Check No. _____

THIS PERMIT IS NOT VALID UNTIL PROPERLY SIGNED BY AN AUTHORIZED OFFICER OR REPRESENTATIVE OF THE WMD OR DELEGATED AUTHORITY. THE PERMIT SHALL BE AVAILABLE AT THE WELL SITE DURING ALL CONSTRUCTION, REPAIR, MODIFICATION, OR ABANDONMENT ACTIVITIES.

 This permit is valid for 90 days from the date of Issue.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT
2379 BROAD STREET, BROOKSVILLE, FL 34604-6899
PHONE: (352) 796-7211 or (800) 423-1476
WWW.SWFWMD.STATE.FL.US

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
4049 REID STREET, PALATKA, FL 32178-1429
PHONE: (386) 329-4500
WWW.SJRWMD.COM

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT
152 WATER MANAGEMENT DR., HAVANA, FL 32333-4712
(U.S. Highway 90, 10 miles west of Tallahassee)
PHONE: (850) 539-5999
WWW.NWFWMD.STATE.FL.US

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
P.O. BOX 24680
3301 GUN CLUB ROAD
WEST PALM BEACH, FL 33416-4680
PHONE: (561) 686-8800
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SUWANNEE RIVER WATER MANAGEMENT DISTRICT
9225 CR 49
LIVE OAK, FL 32060
PHONE: (386) 362-1001 or (800) 226-1066 (Florida only)
WWW.MYSUWANNEERIVER.COM

Comments:

INSTALLATION OF 4 - 1" DIA. MONITORING WELLS TO 12' IN DEPTH WITH 10' OF PREPACKED SCREEN + 4 EXTRA IF NEEDED.

SITE IS IN CITY OWNED STREET ROW IN 4 LOCATIONS.

General Site Map of Proposed Well Location

N

US-301 SOUTH TO MARTIN LUTHER KING BLVD EAST TO PLANT CITY TO WHEELER STREET SOUTH TO RENFRO STREET WEST. SITES ARE IN RENFRO AND BALL STREET AREAS.

Identify known roads and landmarks. Give distances from all reference points or structures, septic systems, sanitary hazards, and contamination sources, if applicable.

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STIPULATION NUMBER 39 - WELL AND DRILLHOLE ABANDONMENT

It will be the **water well contractor's** responsibility to have any incomplete well or drillhole attempted under this permit properly abandoned.
Any incomplete or abandoned well or drill hole as described in Chapter 40D-3, Florida Administrative Code (F.A.C.), shall be abandoned as follows:

A. The well shall be examined from land surface to the original depth of construction for debris or obstructions (any debris or obstruction shall be removed prior to abandonment).

B. The well shall be plugged from bottom to top by an approved method of grouting with either Portland neat cement grout or an approved Bentonite product as specified in Rule 40D-3.517(2)(b), F.A.C.

It will be the **owner's** responsibility to have any well completed under this permit, or any existing well on this property, which meets the definition of an abandoned well as defined in Rule 40D-3.021(1), F.A.C., properly abandoned in accordance with Rule 40D-3.531, F.A.C.

If any well constructed under this permit will replace any existing well deemed abandoned per Rule 40D-3.021 (1), F.A.C., or triggers an unauthorized Water Use situation, then the existing well must be plugged within 30 days of new well completion. A plugging permit will be required.

It will be the **owner's** responsibility to have any inactive well, which does not meet the above criteria and is no threat to the water resource properly capped in an air and watertight manner with a threaded, welded or bolted cover or valve. If the pump and well seal are water tight, the pump may be left in place. If practical, a protective cover two (2) feet in height shall be placed around the well casing.

A. Wells with a diameter of six (6) inches or more without pumping equipment shall have the well casing extended a minimum of two (2) feet above land surface.

B. Wells with a diameter of less than six (6) inches without pumping equipment shall be securely set in a concrete slab and have either the well casing extended a minimum height of two (2) feet above land surface or a protective cover centered over the well casing. The concrete slab shall be a minimum of four (4) inches in thickness by two (2) feet by two (2) feet square. The protective cover shall be set in the concrete slab and extend a minimum of two (2) feet above land surface.

In flood prone areas all wells shall extend a minimum of one (1) foot above the 100 year flood elevation, if practical, in accordance with Rule 40D-3.521(4), F.A.C.

Any plugging operations shall be permitted separately from this permit by the Southwest Florida Water Management District and be witnessed by a designated District representative. Arrangement for a District representative shall be made with the local District Field Services office a minimum of 24 hours in advance of these operations. A District representative will be available for assignment during normal working hours (8:00 AM - 4:30 PM), Monday through Friday. Travel time must be taken into consideration. Exemptions may be made for extenuating circumstances. For scheduling, please contact the Field Service Supervisor in the Tampa office at (813) 985-7481.

Permit No: 853888

COPY TO OWNER TO BE PROVIDED BY CONTRACTOR
(Updated 12/12)

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

STIPULATION # 23 - TEST/MONITOR WELL

A. This well is to be used as a test/monitor well. If it is to be converted into a production well, an additional permit shall be obtained.

B. There shall be no injection of fluids into the monitor well without prior written approval from the Florida Department of Environmental Protection (DEP) or the District. This includes, but is not limited to treated ground water, or the introduction of microbes for in-situ aquifer restoration.

C. The well shall be constructed in such a manner to prevent the unauthorized interchange of water between different water bearing zones (i.e., breaching of confining beds, clays or hardpan intervals) as per Chapter 62-532.500 (3)(e), Florida Administrative Code (F.A.C.).

D. Prior written approval from the District shall be required if the monitor well will be pumped for use in hydrodynamic control and/or contaminant plume management, if quantities reach or exceed requirement of a Water Use Permit.

E. All monitor wells constructed at any facility which has been designated as a ground water contamination site, or a possible ground water contamination site, shall adhere to the construction standards set forth by the DEP and other applicable rules.

F. In the event the well needs to be abandoned, an abandonment permit shall be obtained prior to commencing with abandonment operations.

G. An observer from our Regulation Department is required on all abandonments to ensure compliance with applicable 40D-3 regulations. Please contact the Field Service Supervisor in the Tampa Office at (813) 985-7481 for additional information.

Permit No. 853888

COPY TO OWNER TO BE PROVIDED BY CONTRACTOR

(11/03)

ATTACHMENT B

Sampling Documentation & Laboratory Reports

Former Gro-Mor Facility
City of Plant City

CSI Job No. 9680.24 C

FIELD EQUIPMENT CALIBRATION RECORD

Site Name	Former Gro-Mor, Plant City				
Job No:	9680.24C	Date:	8/28/2016	By:	CBB

Meters

YSI 85	D.O., Conductivity
Micro TPW	Turbidity
Oakton	pH Ecotstr 2

Calibration Acceptance Criteria

oxygen (+/- 0.3 mg/L)	turbidity (ntu): 0.1 -10 = 10%
conductivity (+/- 5 %)	11 - 40 = 8%
pH (+/- 0.2)	41 -100 = 6.5%
	>100 = 5%

Time	Parameter	STD value	inst response	Range	Pass or Fail	type	lot #	exp date
7:30	pH	4.0	4.1	3.8 - 4.2	pass	ICV	4AI515	September-16
	pH	7.0	7.0	6.8 - 7.2	pass	ICV	4AJ369	October-16
	Turbidity	0.02	0	0.00-0.04	pass	ICV	50101	January-17
	Turbidity	10	10.33	9.00-11.00	pass	ICV	50150	January-17
	Turbidity	1000	1020	950-1050	pass	ICV	50103	January-17
	Conductivity	447	467.1	425-469	pass	ICV	5AE215	December-16
	Conductivity	1413	1448	1342-1484	pass	ICV	5GL207	December-16
	D.O	8.158	8.01	8.458-7.858	pass	ICV	T ° C =	25.7

Time	Parameter	STD value	inst response	Range	Pass or Fail	type	lot #	exp date
9:45	pH	4.0	4.0	3.8 - 4.2	pass	CCV	4AI515	September-16
	pH	7.0	7.0	6.8 - 7.2	pass	CCV	4AJ369	October-16
	Turbidity	0.02	0.02	0.00-0.04	pass	CCV	50101	January-17
	Turbidity	10	10.48	9.00-11.00	pass	CCV	50150	January-17
	Turbidity	1000	1009	950-1050	pass	CCV	50103	January-17
	Conductivity	447	463.7	425-469	pass	CCV	5AE215	December-16
	Conductivity	1413	1444	1342-1484	pass	CCV	5GL207	December-16
	D.O	7.828	7.97	8.128-7.528	pass	CCV	T ° C =	28.0

Temperature :	Date:	8/5/2016	YSI-85:	26.5	Standard:	26.5	Result:	pass

Specific Conductance Probe Cleaned ? 8/5/16

Dissolved Oxygen Membrane Changed ? 8/5/16

CAL Calibrate, perform only in calibrate mode
ICV Initial Calibration Verification, perform only in run mode
CCV Continuing Calibration Verification, perform only in run mode

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME:	Former Gro-Mor	SITE LOCATION:	Plant City, Fl
WELL NO: MW-33	SAMPLE ID: # GW016	DATE: 08/28/16	

PURGING DATA

WELL DIAMETER(inches): 1.0	TUBING DIAMETER (inches): 1/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 0.11	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (12 feet - 0.11 feet) X 0.04 gallons/foot = 0.48 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 2.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 2.0	PURGING INITIATED AT: 7:56	PURGING ENDED AT: 8:16	TOTAL VOLUME PURGED (gallons): 0.95

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard Units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or %saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
8:06	0.50	0.5	0.05	1.1	5.5	26.5	172.4	1.40	25.27	clear	35
8:09	0.15	0.7	0.05	1.1	5.5	26.7	172.5	1.21	6.87	clear	46
8:12	0.15	0.8	0.05	1.1	5.5	26.7	172.5	1.16	2.87	clear	55
8:15	0.15	1.0	0.05	1.1	5.5	26.7	171.9	1.16	1.96	clear	57

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37 **4"** = 0.65; **5"** = 1.02 **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump: **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump: **O** = Other (specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Charles Browning / Chastain-Skillman, Inc	SAMPLER(S) SIGNATURES(S): Charles Browning	SAMPLING INITIATED AT: 8:16	SAMPLING ENDED AT: 8:17
PUMP OR TUBING DEPTH IN WELL (feet): 2.0	TUBING MATERIAL CODE: HDPE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL	FINAL p H			
GW016	1	HDPE	250 ml	HNO3	na		Fe EPA 6010C	APP	189

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE**=Low Density Polyethylene; **PP** = Polypropylene **S** = Silicone; **T**= Teflon **O** = Other (specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

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

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

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME:	Former Gro-Mor	SITE LOCATION:	Plant City, Fl
WELL NO: MW-34	SAMPLE ID: # GW017	DATE: 08/28/16	

PURGING DATA

WELL DIAMETER(inches): 1.0	TUBING DIAMETER (inches): 1/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 2.84	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (12 feet - 2.84 feet) X 0.04 gallons/foot = 0.37 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 11.5	PURGING INITIATED AT: 8:31	PURGING ENDED AT: 8:40	TOTAL VOLUME PURGED (gallons): 0.45

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard Units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or %saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
8:40	0.45	0.5	0.05	8.7	6.0	27.9	331.7	1.01	13.21	clear	-119

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37 **4"** = 0.65; **5"** = 1.02 **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump: **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump: **O** = Other (specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES(S):	SAMPLING INITIATED AT: 8:08	SAMPLING ENDED AT: 8:09
Charles Browning / Chastain-Skillman, Inc	Charles Browning		
PUMP OR TUBING DEPTH IN WELL (feet): 11.5	TUBING MATERIAL CODE: HDPE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL	FINAL p H			
GW017	1	HDPE	250 ml	HNO3	na		Fe, Mn, EPA 6010C	APP	189

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE**=Low Density Polyethylene; **PP** = Polypropylene
S = Silicone; **T**= Teflon **O** = Other (specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump
RFPP = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ±0.2 units **Temperature**: ±0.2 °C **Specific Conductance**: ±5% **Dissolved Oxygen**: all readings ≤20% saturation (see Table FS 2200-2); optionally, ±0.2 mg/L or ±10% (whichever is greater) **Turbidity**: all readings ≤20 NTU; optionally ±5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME: Former Gro-Mor		SITE LOCATION: Plant City, Fl	
WELL NO: MW-35	SAMPLE ID: # GW018		DATE: 08/18/16

PURGING DATA

WELL DIAMETER(inches): 1.0	TUBING DIAMETER (inches): 1/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 1.86	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (12 feet - 1.86 feet) X 0.04 gallons/foot = 0.41 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 3.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 3.5	PURGING INITIATED AT: 8:55	PURGING ENDED AT: 9:12	TOTAL VOLUME PURGED (gallons): 0.80

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard Units)	TEMP. (ºC)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or %saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
9:05	0.50	0.5	0.05	2.1	6.4	29.5	399.6	1.05	8.23	clear	-148
9:08	0.15	0.7	0.05	2.1	6.4	29.5	401.4	1.07	7.63	clear	-156
9:11	0.15	0.8	0.05	2.1	6.4	29.5	400.9	1.12	6.93	clear	-163

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37 **4"** = 0.65; **5"** = 1.02 **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump: **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump: **O** = Other (specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Charles Browning / Chastain-Skillman, Inc	SAMPLER(S) SIGNATURES(S): Charles Browning	SAMPLING INITIATED AT: 9:13	SAMPLING ENDED AT: 9:14
PUMP OR TUBING DEPTH IN WELL (feet): 3.5	TUBING MATERIAL CODE: HDPE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL	FINAL p H			
GW018	1	HDPE	250 ml	HNO3	na		Fe, Mn, EPA 6010C	APP	189

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE**=Low Density Polyethylene; **PP** = Polypropylene
S = Silicone; **T**= Teflon **O** = Other (specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump
RFPP = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ±0.2 units **Temperature:** ±0.2 ºC **Specific Conductance:** ±5% **Dissolved Oxygen:** all readings ≤20% saturation (see Table FS 2200-2); optionally, ±0.2 mg/L or ±10% (whichever is greater) **Turbidity:** all readings ≤20 NTU; optionally ±5 NTU or ± 10% (whichever is greater)

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME:	Former Gro-Mor	SITE LOCATION:	Plant City, Fl
WELL NO: MW-36	SAMPLE ID: # GW019	DATE: 08/28/16	

PURGING DATA

WELL DIAMETER(inches): 1.0	TUBING DIAMETER (inches): 1/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 1.80	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (12 feet - 1.80 feet) X 0.04 gallons/foot = 0.41 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 4.0	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 3.5	PURGING INITIATED AT: 9:20	PURGING ENDED AT: 9:37	TOTAL VOLUME PURGED (gallons): 0.80

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard Units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or %saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
9:30	0.50	0.5	0.05	2.2	6.4	29.3	432.5	1.14	12.58	clear	-182
9:33	0.15	0.7	0.05	2.2	6.4	29.3	434.1	1.09	11.16	clear	-191
9:36	0.15	0.8	0.05	2.2	6.4	29.4	432.9	1.08	10.34	clear	-184

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37 **4"** = 0.65; **5"** = 1.02 **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

PURGING EQUIPMENT CODES: **B** = Bailer; **BP** = Bladder Pump: **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump: **O** = Other (specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION:	SAMPLER(S) SIGNATURES(S):	SAMPLING INITIATED AT: 9:37	SAMPLING ENDED AT: 9:39
Charles Browning / Chastain-Skillman, Inc	Charles Browning		

PUMP OR TUBING DEPTH IN WELL (feet): 3.5	TUBING MATERIAL CODE: HDPE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm

FIELD DECONTAMINATION: PUMP Y (N) TUBING Y (N) (replaced) DUPLICATE: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL	FINAL p H			
GW019	1	HDPE	250 ml	HNO3	na		Fe, Mn, EPA 6010C	APP	189

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE**=Low Density Polyethylene; **PP** = Polypropylene
S = Silicone; **T**= Teflon **O** = Other (specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump
RFPP = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (specify)

NOTES: 1. **The above do not constitute all of the information required by Chapter 62-160, F.A.C.**

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

DEP Form FD 9000-24: GROUNDWATER SAMPLING LOG

SITE NAME:	Former Gro-Mor	SITE LOCATION:	Plant City, Fl
WELL NO: MW-37	SAMPLE ID: # GW020	DATE: 08/28/16	

PURGING DATA

WELL DIAMETER(inches): 1.0	TUBING DIAMETER (inches): 1/8	WELL SCREEN INTERVAL DEPTH: 2 feet to 12 feet	STATIC DEPTH TO WATER (feet): 3.72	PURGE PUMP TYPE OR BAILER: PP

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) = (12 feet - 3.72 feet) X 0.04 gallons/foot = 0.33 gallons

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) = gallons + (gallons/foot X feet) + gallons = gallons

INITIAL PUMP OR TUBING DEPTH IN WELL (feet): 5.5	FINAL PUMP OR TUBING DEPTH IN WELL (feet): 5.5	PURGING INITIATED AT: 7:22	PURGING ENDED AT: 7:40	TOTAL VOLUME PURGED (gallons): 0.90

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	PURGE RATE (gpm)	DEPTH TO WATER (feet)	pH (standard Units)	TEMP. (°C)	COND. (circle units) µmhos/cm or µS/cm	DISSOLVED OXYGEN (circle units) mg/L or %saturation	TURBIDITY (NTUs)	COLOR (describe)	ORP (mV)
7:32	0.50	0.5	0.05	4.6	5.9	28.3	212.1	1.05	4.18	clear	-90
7:36	0.20	0.7	0.05	4.6	5.9	28.3	205.4	1.03	4.20	clear	-92
7:40	0.20	0.9	0.05	4.6	5.8	28.3	202.0	1.14	4.22	clear	-101

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37 **4"** = 0.65; **5"** = 1.02 **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (gal/ft): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016
PURGING EQUIPMENT CODES: B = Bailer; BP = Bladder Pump: ESP = Electric Submersible Pump; PP = Peristaltic Pump: O = Other (specify)

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: Charles Browning / Chastain-Skillman, Inc	SAMPLER(S) SIGNATURES(S): Charl Browning	SAMPLING INITIATED AT: 7:41	SAMPLING ENDED AT: 7:42
PUMP OR TUBING DEPTH IN WELL (feet): 5.5	TUBING MATERIAL CODE: HDPE/S	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE: ___ µm
FIELD DECONTAMINATION: PUMP Y (N)	TUBING Y (N) (replaced)	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION (including wet ice)			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mL per minute)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL	FINAL p H			
GW020	1	HDPE	250 ml	HNO3	na		Fe, Mn, EPA 6010C	APP	189

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **HDPE** = High Density Polyethylene; **LDPE**=Low Density Polyethylene; **PP** = Polypropylene
S = Silicone; **T**= Teflon **O** = Other (specify)

SAMPLING EQUIPMENT CODES: **APP** = After (Through) Peristaltic Pump: **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump
RFPP = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **O** = Other (specify)

NOTES: **1. The above do not constitute all of the information required by Chapter 62-160, F.A.C.**
2. STABILIZATION CRITERIA FOR RANGE OF VARIATION OF LAST THREE CONSECUTIVE READINGS (SEE FS 2212, SECTION 3)
pH: ±0.2 units **Temperature:** ±0.2 °C **Specific Conductance:** ±5% **Dissolved Oxygen:** all readings ≤20% saturation (see Table FS 2200-2); optionally, ±0.2 mg/L or ±10% (whichever is greater) **Turbidity:** all readings ≤20 NTU; optionally ±5 NTU or ± 10% (whichever is greater)

NELAP Certificate No. E84880

LAKELAND LABORATORIES

1910 Harden Boulevard
Suite 101
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(863) 686-4271 Phone
(863) 686-4389 Fax

Charles B. Browning, PG
Chastain-Skillman, Inc.
P.O. Box 5710
Lakeland, FL 33807

31 August 2016
Lab Work Order (COC): 1608109

RE: **Former Gro-Mor Facility**
Project Location: **Plant City, FL**
Project Number: **9680.24C**

Dear Charles B. Browning, PG:

This report details the analytical results of samples collected at the above-referenced project location as well as the results of any associated quality control samples. These samples were taken into custody by Lakeland Laboratories at **29-Aug-16 08:35**.

The work detailed herein has been conducted in accordance with generally accepted professional standards using recognized testing methodologies and quality control measures. It must be noted that the results detailed within this final report apply only to those samples submitted for analysis and reported here. When the NELAP logo is affixed to this report, these test results meet all requirements of the National Environmental Laboratory Accreditation Conference (NELAC).

Your samples will be retained by Lakeland Laboratories for a period of at least 30 days following sample receipt or until the longest of the preparation and/or analytical hold times expires, whichever is shorter. After that time, they will be properly disposed without further notice, unless there exists an explicit contractual agreement to the contrary. We reserve the right to return any unused samples, extracts, or related materials or solutions to you if we consider it necessary. Examples might include those samples identified as hazardous wastes, submissions where the sample sizes significantly exceed those required for analysis, samples containing controlled substances, etc.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full. We will maintain a copy of this report, electronic or otherwise, in our files for at least five years, after which time it may be destroyed without further notice, unless there exists an explicit contractual agreement to the contrary.

We thank you for selecting Lakeland Laboratories to serve your analytical needs. Should you have any questions or require additional information regarding any of the information in this report, please feel free to contact us at any time. We appreciate the opportunity to be of service.

Sincerely,

Technical Director
Jim Crawford For Garrick Johnson

NELAP Certificate No. E84880

LAKELAND LABORATORIES

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Chastain-Skillman, Inc.
P.O. Box 5710
Lakeland, FL 33807

Project Name: Former Gro-Mor Facility
Project Number: 9680.24C
Project Location: Plant City, FL
Project Manager: Charles B. Browning, PG

Reported:
31-Aug-16 15:59
Lab Work Order (COC): 1608109

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
GW 16 MW 33	1608109-01	Ground Water	28-Aug-16 08:16	29-Aug-16 08:35
GW 17 MW 34	1608109-02	Ground Water	28-Aug-16 08:41	29-Aug-16 08:35
GW 18 MW 35	1608109-03	Ground Water	28-Aug-16 09:13	29-Aug-16 08:35
GW 19 MW 36	1608109-04	Ground Water	28-Aug-16 09:37	29-Aug-16 08:35
GW 20 MW 37	1608109-05	Ground Water	28-Aug-16 07:41	29-Aug-16 08:35

NELAP Certificate No. E84880

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Project Name:	Former Gro-Mor Facility
Project Number:	9680.24C
Project Location:	Plant City, FL
Project Manager:	Charles B. Browning, PG

Reported:
31-Aug-16 15:59
Lab Work Order (COC): 1608109

GW 16 MW 33
1608109-01 (Ground Water)

Analyte	Result	PQL	MDL	Units	Dilution	%Rec	%Rec Limits	Qualifiers
				Prepared:	**31-Aug-16 08:46**			
EPA Method 6010C - Metals by ICP				Analyzed:	**31-Aug-16 12:43**			Batch: B608149
Iron	7.00 U	25.0	7.00	ug/L	1			

NELAP Certificate No. E84880

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Project Name:	Former Gro-Mor Facility
Project Number:	9680.24C
Project Location:	Plant City, FL
Project Manager:	Charles B. Browning, PG

Reported:
31-Aug-16 15:59
Lab Work Order (COC): 1608109

GW 17 MW 34

1608109-02 (Ground Water)

Analyte	Result	PQL	MDL	Units	Dilution	%Rec	%Rec Limits	Qualifiers
				Prepared:	**31-Aug-16 08:46**			
EPA Method 6010C - Metals by ICP				Analyzed:	**31-Aug-16 12:46**		Batch: B608149	
Iron	**73.9**	25.0	7.00	ug/L	1			
Manganese	**54.5**	5.00	2.00	ug/L	1			

NELAP Certificate No. E84880

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Lakeland, FL 33807

Project Name:	Former Gro-Mor Facility
Project Number:	9680.24C
Project Location:	Plant City, FL
Project Manager:	Charles B. Browning, PG

Reported:
31-Aug-16 15:59
Lab Work Order (COC): 1608109

GW 18 MW 35

1608109-03 (Ground Water)

Analyte	Result	PQL	MDL	Units	Dilution	%Rec	%Rec Limits	Qualifiers
				Prepared:	**31-Aug-16 08:46**			
EPA Method 6010C - Metals by ICP				Analyzed:	**31-Aug-16 12:50**			Batch: B608149
Iron	**1410**	250	70.0	ug/L	10			
Manganese	**63.9**	5.00	2.00	ug/L	1			

NELAP Certificate No. E84880

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Chastain-Skillman, Inc.
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Lakeland, FL 33807

Project Name:	Former Gro-Mor Facility
Project Number:	9680.24C
Project Location:	Plant City, FL
Project Manager:	Charles B. Browning, PG

Reported:
31-Aug-16 15:59
Lab Work Order (COC): 1608109

GW 19 MW 36

1608109-04 (Ground Water)

Analyte	Result	PQL	MDL	Units	Dilution	%Rec	%Rec Limits	Qualifiers
				Prepared:	**31-Aug-16 08:46**			
EPA Method 6010C - Metals by ICP				Analyzed:	**31-Aug-16 12:53**			Batch: B608149
Iron	**10700**	625	175	ug/L	25			
Manganese	**85.4**	5.00	2.00	ug/L	1			

NELAP Certificate No. E84880

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Lakeland, FL 33807

Project Name:	Former Gro-Mor Facility
Project Number:	9680.24C
Project Location:	Plant City, FL
Project Manager:	Charles B. Browning, PG

Reported:
31-Aug-16 15:59
Lab Work Order (COC): 1608109

GW 20 MW 37

1608109-05 (Ground Water)

Analyte	Result	PQL	MDL	Units	Dilution	%Rec	%Rec Limits	Qualifiers
				Prepared:	**31-Aug-16 08:46**			
EPA Method 6010C - Metals by ICP				Analyzed:	**31-Aug-16 12:56**			Batch: B608149
Iron	**1170**	25.0	7.00	ug/L	1			
Manganese	**21.6**	5.00	2.00	ug/L	1			

NELAP Certificate No. E84880

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P.O. Box 5710
Lakeland, FL 33807

Project Name: Former Gro-Mor Facility
Project Number: 9680.24C
Project Location: Plant City, FL
Project Manager: Charles B. Browning, PG

Reported:
31-Aug-16 15:59
Lab Work Order (COC): 1608109

EPA Method 6010C - Metals by ICP - Quality Control

Lakeland Laboratories, LLC

Analyte	Result	PQL	MDL	Units	Spike Level	Source Result	%Rec	%Rec Limits	RPD	RPD Limit	Qualifiers
Batch: B608149 - Prep Method: 3010A											
Blank (B608149-BLK1)				Prepared: **31-Aug-16 08:46**			Analyzed: **31-Aug-16 12:26**				
Iron	7.00 U	25.0	7.00	ug/L							
Manganese	2.00 U	5.00	2.00	ug/L							
LCS (B608149-BS1)				Prepared: **31-Aug-16 08:46**			Analyzed: **31-Aug-16 12:30**				
Iron	476	25.0	7.00	ug/L	500		95	80-120			
Manganese	472	5.00	2.00	ug/L	500		94	80-120			
LCS Dup (B608149-BSD1)				Prepared: **31-Aug-16 08:46**			Analyzed: **31-Aug-16 12:33**				
Iron	475	25.0	7.00	ug/L	500		95	80-120	0.1	20	
Manganese	475	5.00	2.00	ug/L	500		95	80-120	0.7	20	
Matrix Spike (B608149-MS1)		**Source: 1608109-01**		Prepared: **31-Aug-16 08:46**			Analyzed: **31-Aug-16 12:36**				
Iron	458	25.0	7.00	ug/L	500	7.00 U	92	75-125			
Manganese	456	5.00	2.00	ug/L	500	4.40	90	75-125			
Matrix Spike Dup (B608149-MSD1)		**Source: 1608109-01**		Prepared: **31-Aug-16 08:46**			Analyzed: **31-Aug-16 12:40**				
Iron	456	25.0	7.00	ug/L	500	7.00 U	91	75-125	0.6	20	
Manganese	453	5.00	2.00	ug/L	500	4.40	90	75-125	0.6	20	

NELAP Certificate No. E84880

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Chastain-Skillman, Inc.
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Lakeland, FL 33807

Project Name:	Former Gro-Mor Facility
Project Number:	9680.24C
Project Location:	Plant City, FL
Project Manager:	Charles B. Browning, PG

Reported:
31-Aug-16 15:59
Lab Work Order (COC): 1608109

Notes and Definitions

DET	Analyte DETECTED
U	Analyte NOT DETECTED at or above the MDL
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
MRL	Method Reporting Limit

Results of liquid samples are reported on a wet-weight basis unless otherwise indicated. Results of solid samples are reported on a dry-weight basis unless otherwise indicated.

Lakeland Laboratories, LLC
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CHAIN OF CUSTODY

Page 1 of 1

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Lab Work Order Number: 1608109

Client Name Chastain-Skillman, Inc.	**Project Name** Former Gro-Mor Facility
Project Manager Charles B. Browning, PG	**Project Number** ~~9680.24A~~ 9680.24C
Client Address P.O. Box 5710	**Project Location** Plant City, FL
City Lakeland	**PO Number**
State/Zip FL, 33807	**Shipped By**
Phone (863) 646-1402 **Fax** (863) 646-8023	**Tracking Number**
Sampler Charles Browning	**Sampler Signature** Charles Browning

Requested Analyses: Fe::Mn — Fe only

Requested Turn Around
FDEP Facility No.:
Rush requests subject to additional charge.
Rush requests subject to lab approval.
Standard (days): 5
Expedited (days):
Requested Due Date: ---

Sample Name or Field ID	Sampled Date	Sampled Time	Sample Type (Grab / Composite)	Matrix Code	Container Count	Preservation Code HNO3	Sample Comments	Lab ID
GW~~001~~ 16 MW33	8-28-16	8:16	G	GW	1	1		1608109-01
GW~~002~~ 17 MW34	8-28-16	8:41	G	GW	1	1		1608109-02
GW~~003~~ 18 MW35	8-28-16	9:13	G	GW	1	1		1608109-03
GW~~004~~ 19 MW36	8-28-16	9:37	G	GW	1	1		1608109-04
GW~~005~~ 20 MW37	8-28-16	7:41	G	GW	1	1		1608109-05

Item Numbers	Relinquished By	Received By	Date/Time
1-5		Charl Browning	8-25-16 1500
Item Numbers	Charl Browning		8-29-16 0835
Item Numbers	Relinquished By	Received By	Date/Time
Item Numbers	Relinquished By	Received By	Date/Time

Sample Kit Prepared By: KJM — Date/Time: 8-24-16 1533

Comments

Cooler Numbers and Temperatures: 8.6° C wet ice

Total # of Containers: 5

Matrix Codes: GW=Ground Water

Preserv. Codes: HNO3=pH<2 w/ HNO3+Store 4°C