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September 28, 2018

Summer 2018 Discrete Interval Water Quality Sampling – Memorandum Report
Contract No. 16-030 Task Order #4

As requested, Jim Stidham & Associates (JSA) has contracted with Trinity Analysis & Development Corp. (Trinity) to provide Professional services for the task of Discrete Interval Water Quality Sampling. The purpose of this research has been to evaluate the current position of the saltwater interface along the coast of Santa Rosa, Okaloosa, and Walton Counties. The Northwest Florida Water Management District identified twelve wells in this task, ranging in depth from 385 feet to 1,150 feet, as targets for investigation. Some of these wells were visited in October and November of 2017. **(See Map: Discrete Interval Sampling Locations with Interpreted Depths to the Potable Interface)**. The results are provided in **Table 1** of this Memo Report with those from 2017 for comparison. Additional details are provided in **Table 2** of the attached files from Trinity. The associated tasks are summarized briefly here:

Tasks

Well Logging

- Measurement of the static water level from an established point prior to logging.
- Vertical geophysical logging of the open-hole interval of the well for fluid conductivity profiling to identify a potential saltwater interface.
- In cooperation with the NWFWMD, the results of the logging profiles were distributed for the consideration of sample collection based on the conditions encountered.

Discrete Sampling

- If no interface was suspected, then a single sample was collected based on specific conductance or fluid conductivity response as directed by the District.
- If an interface was suspected, then two samples were collected. One sample was collected from above and the second sample collected from below the interface at the District's direction.
- A YSI 556 multi-meter was utilized to determine pH and specific conductance of the collected samples in the field. Laboratory analysis was performed to determine the concentrations of sodium (Na), chloride (Cl-), and Total Dissolved Solids (TDS).
- Details of methodology are provided in the attached supporting documents provided by Trinity.

Reporting

- Field and lab results have been tabulated and summarized in this memo report.
- Total dissolved solids (TDS), chloride and sodium, by analysis, were utilized to interpret the presence of a saltwater interface (based on potable water standards FAC 62-550).
- A more detailed tabulation of results is provided in Table 2 of the attached documents.
- Geophysical logs, WellCAD, and Laboratory Analysis Report data files are being provided electronically.

JSA sub-contracted the field work portion of this investigation to Trinity Analysis & Development Corp. Trinity has provided a description of their methodology in the attachments. JSA has managed the NWFWMD contract, as well as, coordinated with the field personnel for scheduling activities and confirmation of target sample intervals. Trinity has provided the data, field notes, processed logs and laboratory reports for compilation and delivery in this memo report.

Defining the Saltwater Interface

A saltwater interface is a zone of transition between freshwater and saltwater within an aquifer. The U.S. Geological Survey defines "freshwater" as having less than 1,000 mg/L of dissolved solids. For the purpose of potable drinking water standards, 500 mg/L is the acceptable limit. The interpretation of the presence of a saltwater interface in this report has been based on the direct analysis of Total Dissolved Solids, Sodium and Chloride in the samples collected in comparison to primary and secondary potable drinking water standards of FAC 62-550. Specifically, the results have been compared to the standards of 500 mg/L TDS, 160 mg/L sodium, and/or 250 mg/L chloride for potable quality.

When determined by only the sample results, a straight-line interpolation was applied between sampling depths and normalized to 500 mg/L TDS to estimate the depth to the interface as follows:

Depth of interface (D_I) = $Z_2 – ((Z_2-Z_1)/(C_2-C_1)*(C_2-500\ mg/L))$
Where:
Z = depth in feet
C= concentration of TDS in mg/L
1 = designates upper sample
2 = designates lower sample

Summary of Results

During the course of the field activity, all of the twelve (12) study wells were visited. However, an obstruction within well 12812 prevented that well from being logged further and no sample was collected there. The remaining eleven (11) wells were all successfully logged and had at least one sample collected from the open-hole portion. Conditions at each well are discussed briefly below.

NWF ID 1376 – NWFWMD West Hewett (Upper Floridan):

8/13/2018 As in 2017, the logs indicated water quality was fairly uniform throughout the open-hole interval. Last year, the probe was fouled upon tagging bottom of the borehole at 707 feet below land surface (bls); this year a total depth of 704 feet is reported. The logs did not suggest an interface or significant transition zone within the open borehole, and in comparison, the logged bulk resistivity as well as fluid conductivity/resistivity from both years are very similar. One sample was collected at 690 feet bls, within the depth interval of highest fluid conductivity per sampling criteria.

The field conductivity value recorded at the sample depth was 930 µS/cm. The laboratory analyses of TDS, sodium and chloride were 499 mg/l, 151 mg/L, and 192 mg/L respectively. While these results do not exceed potable drinking water standards, both TDS and sodium are at their limit values. Based on this information, and the continued decrease in resistivity through the open-hole, the interface is interpreted to exist just below the sample position near the total depth of the open-hole interval at 704 feet.

NWF ID 1696 – OCWS ISL-1 (Upper Floridan):
8/12/2018 A comparison of the 2017 and this year's log indicates very little change between events. There is a subtle transition in water quality with depth from the base of the casing at 536 feet bls to the bottom of the open-hole interval. The bottom of the open-hole interval was tagged at 860 feet bls (same as previous); 30 feet shallower than originally reported. Per the sampling criteria, one sample was collected above the transition at 580 feet bls and below the transition at 840 feet bls (near the bottom of the open-hole interval).

The field conductivity value recorded at the upper sample depth was 620 µS/cm. The field conductivity value recorded at the lower sample depth was 620 µS/cm. The laboratory analyses of TDS, sodium and chloride were 355 mg/l, 119 mg/L, and 65.8 mg/L respectively in the upper sample, and, 354 mg/L, 118 mg/L and 65.0 mg/L, respectively in the lower sample. None of these results exceed potable drinking water standards and no sudden decrease in fluid resistivity was observed. Based on this information, the interface is interpreted to exist below the total depth of the logged open-hole interval, or, greater than 860 feet bls.

NWF ID 7174 – DWU MO#2 (Lower Floridan):
8/17/2018 Logs indicated a distinct transition in water quality at about 970 feet bls. The bottom of the open-hole interval was tagged at 1,079 feet bls. Per the sampling criteria, one sample was collected above the transition at 955 feet bls (below the bottom of the casing at 920 feet) and below the transition at 1,070 feet bls (near the bottom of the open-hole interval).

The field conductivity value recorded at the upper sample depth was 3,909 µS/cm. The field conductivity value recorded at the lower sample depth was 6,046 µS/cm. The laboratory analyses of TDS, sodium and chloride were 1,890 mg/l, 704 mg/L, and 1,150 mg/L respectively in the upper sample, and, 3,300 mg/L, 1,090 mg/L and 1,910 mg/L, respectively in the lower sample. The analysis results from both sample points continue to exceed potable drinking water standards. Because the upper sample was collected from just below the casing depth of the well and the analysis values exceed the limits for potable standards, as well as fresh water limits, the interface is interpreted to exist above the cased depth of the well. That depth at this location is 920 feet bls or less.

Water quality results of the upper sample are comparable between the recent and Fall-2017 events. In contrast, the concentrations reported for the analytes in the lower sample in this effort are about half of the results for Fall-2017. This would suggest improved water quality at depth or more uniform water quality along the borehole. However, the observed bulk formation and fluid resistivity responses in the recent geophysical logs are lower than the 2017, indicating a general decrease in water quality. The cause for the disparity is not apparent in the WellCAD or other supporting data and documentation.

NWF ID 7183 – SWUC West Monitor (Upper Floridan):
8/14/2018 & 8/20/2018 As in 2017, logs indicated a high-resistivity feature around 550 feet bls with an abrupt transition in water quality at the base of the feature. A subtle decreasing trend in fluid resistivity is observed from around 550 feet to 620 feet bls. The bottom of the open-hole interval was tagged at 699 feet bls. Per the sampling criteria, one sample was collected above the transition at 520

feet bls (below the bottom of the casing) and one below the transition at 575 feet bls. A third sample was collected near the bottom of the open-hole interval at 660 feet bls.

The field conductivity values recorded from the upper to the lower sample depths were 337 µS/cm, 1,263 µS/cm, and 2,535 µS/cm, respectively. The laboratory analyses of TDS, sodium and chloride were 184 mg/l, 21.9 mg/L, and 19.8 mg/L respectively in the upper sample at 520 feet bls. The middle depth (575 feet) results were 776 mg/L, 129 mg/L and 131 mg/L, respectively. The sample results from the lowest depth (660 feet) were 1,660 mg/L, 285 mg/L and 273 mg/L, respectively. This is a departure from the Fall-2017 sampling results with both of the middle and lower sample depths exceeding drinking water standards. In contrast to the Fall-2017 event, the recent results are in general agreement with the predicted concentrations based on the elevated conductivity values.

The analysis results from the upper sample point do not exceed potable drinking water standards. Conversely, the results for TDS and sodium do exceed drinking water standards in the lower sample interval. The results of the middle sample point are above the drinking water standard for TDS. For these reasons, it is interpreted that the transition from fresh, potable water to saline conditions is between the upper and middle sample depths. Based on the depth-to-interface equation above, the interface is estimated to be within the open-hole at 554 feet bls.

The bulk formation resistivity observed near the depth of the middle sample during the recent sampling event is less than observed in Fall-2017. However, the bulk formation resistivity at the lower sample depth is similar to that observed in 2017. Unfortunately, the water quality results cannot support the similarity observed as the lower sample results from the Fall-2017 sampling event were suspect.

NWF ID 7349 – SWUC East Monitor (Upper Floridan):
8/15/2018 Logs indicated a transition in water quality at depth, with a trend starting at about 440 feet bls and a marked change at 580 feet bls. The bottom of the open-hole interval was tagged at 600 feet bls. Per the sampling criteria, one sample was collected above the transition at 440 feet bls (below the bottom of the casing at 425 feet bls) and below the transition at 590 feet bls.

The field conductivity value recorded at the upper sample depth was 363 µS/cm. The field conductivity value recorded at the lower sample depth was 1,225 µS/cm. The laboratory analyses of TDS, sodium and chloride were 198 mg/l, 28.0 mg/L, and 31.4 mg/L respectively in the upper sample, and 622 mg/L, 183 mg/L and 271 mg/L, respectively, in the lower sample. The analysis results from the upper sample point do not exceed potable drinking water standards. The results for TDS, sodium, and chloride do exceed drinking water standards in the lower sample interval. Based on these results, it is interpreted that the transition from fresh, potable water to saline conditions is at a depth within the open-hole portion of the well. Because the fluid resistivity log indicates a distinct transition in water quality at 580 feet bls. The interface is estimated to be closer to the sampling depth based on that response recorded in the log.

There are observable differences in the trends of the log plots between the Fall-2017 and recent sampling events. First, the slope of the decreasing trend in fluid resistivity is steeper for the recent sampling event, with field and lab water quality results for the lower sample elevated relative to those of 2017. Bulk formation resistivity is also observably less along the entire length of the borehole than observed in 2017. The bulk resistivity plot lines for the current sampling event indicate that water

quality deeper in the formation near the bottom of the open-hole interval may be more mineralized or saline as compared to the response observed in 2017 and suggesting a movement of the saltwater interface within the formation.

NWF ID 7751 – Seagrove Deep (Upper Floridan):
8/10/2018 Logs indicated that fluid conductivity values are elevated, with a continuous increase within the open-hole. The bottom of the open-hole interval was tagged at 634 feet bls; 11 feet shallower than originally recorded. One sample was collected at 620 feet bls, within the depth interval of highest fluid conductivity response per sampling criteria.

The field conductivity value recorded at the sample depth was 3,790 µS/cm. The laboratory analyses of TDS, sodium and chloride were 1,820 mg/l, 645 mg/L, and 1,190 mg/L respectively. All of these results continue to exceed potable drinking water standards and TDS is greater than fresh water criteria. Due to this water quality and the uniform resistivity throughout the borehole, it is interpreted that this well is likely cased below the depth of the saltwater interface at this location. The interface is estimated to be shallower than 538 feet bls. There are no significant differences between the log plots from Fall-2017 and this sampling event. Fluid resistivity is slightly less overall for the current event, but bulk formation resistivity logs are similar.

NWF ID 9137 – DWU MO#1 (Upper Floridan):
8/21/2018 Like the previous year, the logs indicated a moderate stair-step transition in water quality from about 600 feet to 648 feet bls. The bottom of the open-hole interval was tagged at 648 feet bls. Per the sampling criteria, one sample was collected above the transition at 495 feet bls (below the bottom of the casing at 488 feet bls) and below the transition at 640 feet bls (near the bottom of the open-hole interval).

The field conductivity value recorded at the upper sample depth was 298 µS/cm. The field conductivity value recorded at the lower sample depth was 783 µS/cm. The laboratory analyses of TDS, sodium and chloride were 161 mg/l, 23.7 mg/L, and 10.7 mg/L respectively in the upper sample, and, 500 mg/L, 61.5 mg/L and 34.6 mg/L, respectively in the lower sample. The water quality and geophysical log results for the recent sampling event are similar to results from 2017. The analysis results from the upper sample point do not exceed potable drinking water standards. Conversely, the results for TDS are at the drinking water standard in the lower sample interval. For these reasons, it is interpreted that the transition from fresh, potable water to saline conditions begins at a depth within the open-hole portion of the well where the resistivity and conductivity transition to the values represented by the sample, which is around 625 feet. However, considering the bottom sample results were just at the drinking water standard for TDS and the fluid resistivity based on the log is approximately 10 ohm-m at sample depth, the interface is estimated to be deeper in the open-hole interval, or approximately 640 feet bls.

NWF ID 12811 – A-4 (Lower Floridan):
8/8/2018 Logs indicated that fluid conductivity values are significantly elevated within the open-hole. The bottom of the open-hole interval was tagged at 699 feet bls. One sample was collected at 640 feet bls, within the depth interval of highest fluid conductivity response per sampling criteria.

The field conductivity value recorded at the sample depth was 7,990 µS/cm. The laboratory analyses of TDS, sodium and chloride were 4,540 mg/l, 1,480 mg/L, and 2,690 mg/L respectively. All of these results exceed potable drinking water standards and TDS is greater than fresh water criteria. Based on water quality and the uniform resistivity throughout the borehole, it is concluded that the well is likely cased below the depth of the saltwater interface at this location. The interface is estimated to be shallower than 600 feet bls. This well was not logged during the Fall-2017 sampling event.

NWF ID 12812 – A-4a (Upper Floridan):
This well is cased to a depth of 200 feet bls with a recorded total depth of 385 feet bls. During this event, the logger encountered an obstruction at approximately 218.5 feet bls. No geophysical logging was performed or water quality sample collected.

In a separate task authorization, JSA performed a video inspection of this well on September 18, 2018. An occlusion of the borehole with angular cobbles of the bedrock was noted at approximately 220.5 feet below top of well casing. A report describing the inspection has been provided under separate cover.

NWF ID 12838 – A-3 (Lower Floridan):
8/7/2018 Logs indicated that fluid conductivity in the open-hole was uniformly low (<250 µS/cm). However, a transition toward increasing values is noted beginning at 620 feet bls. The bottom of the open-hole interval was tagged at 672 feet. Per the sampling criteria, one sample was collected above the transition at 570 feet bls (below the bottom of the casing at 560 feet bls) and below the transition at 660 feet bls (near the bottom of the open-hole interval).

The field conductivity value recorded at the upper sample depth was 238 µS/cm. The field conductivity value recorded at the lower sample depth was 195 µS/cm. The laboratory analyses of TDS, sodium and chloride were 117 mg/l, 5.63 mg/L, and 3.2 mg/L respectively in the upper sample, and, 122 mg/L, 6.02 mg/L and 3.3 mg/L, respectively in the lower sample. None of these results exceed drinking water standards. Based on these results, it is interpreted that the transition from fresh, potable water to saline conditions is deeper than the open-hole portion of the well with a total recorded depth of 670 feet. This well was not logged during the Fall-2017 sampling event.

NWF ID 12840 – A-2 (Lower Floridan):
8/3/2018 Logs indicated that fluid conductivity in the open-hole was uniformly low (<700 µS/cm) with a marked transition to increasing values observed at around 842 feet bls. The bottom of the borehole was tagged at 885 feet. Per the sampling criteria, one sample was collected above the transition at 755 feet bls (below the bottom of the casing at 740 feet bls) and below the transition at 875 feet bls (near the bottom of the open-hole interval). A duplicate sample for analysis was collected from the 875-foot depth.

The field conductivity value recorded at the upper sample depth was 443 µS/cm. The field conductivity value recorded at the lower sample depth was 558 µS/cm. The laboratory analyses of TDS, sodium and chloride were 245 mg/l, 48.6 mg/L, and 57.3 mg/L respectively in the upper sample, and, 298(303) mg/L, 71.7(73.4) mg/L and 89.7(89.7) mg/L, respectively in the lower sample. Duplicate analysis results are

shown in parenthesis. None of these results exceed drinking water standards. Based on this information, it is interpreted that the transition from fresh, potable water to saline conditions is located at a depth greater than the open-hole portion of the well, with a total recorded depth of 885 feet. This well was not logged during the Fall-2017 sampling event.

NWF ID 12848 – B-2 (Lower Floridan):
7/31/2018 Logs indicated a moderate stair-step transition in water quality between 1,088 feet and 1,122 feet bls. Fluid conductivity and resistivity values in the open-hole show a distinct transition beginning around 1,090 feet bls. The bottom of the borehole was tagged at 1,149 feet. Per the sampling criteria, one sample was collected above the transition at 1,060 feet bls and below the transition at 1,134 feet bls (near the bottom of the open-hole interval).

The field conductivity value recorded at the upper sample depth was 590 µS/cm. The field conductivity value recorded at the lower sample depth was 1,940 µS/cm. The laboratory analyses of TDS, sodium and chloride were 356 mg/l, 124 mg/L, and 53.0 mg/L respectively in the upper sample, and, 1,110 mg/L, 402 mg/L and 497 mg/L, respectively in the lower sample.

The analysis results from the upper sample point do not exceed potable drinking water standards. Conversely, the results for TDS, chloride and sodium are above the drinking water standards in the lower sample interval. For these reasons, it is interpreted that the transition from fresh, potable water to saline conditions begins at a depth within the open-hole portion of the well. Assuming the water quality at the top of the transition (1,088 feet bls) is comparable to that at the upper sample point (1,060 feet bls) and the water quality at the bottom of the transition (1,124 feet bls) is comparable to that at the lower sample point (1,134 feet bls), a straight-line interpolation of the interface along the transition results in an estimated depth to the interface of 1,095 feet bls. This well was not logged during the Fall-2017 sampling event.

Table 1. Water Quality and Estimated Interface Depth Summary

Visit Date	Bottom Tagged (feet)	DTW BLS (feet)	Sample Depth(s)	Cond. uS/cm	Lab Results (mg/L)			Interface Depth (ft)
					TDS	Na^+	Cl^-	
NWF ID 1376								
10/25/2017	707	23.87	690	869	478	142	171	>707
8/13/2018	704	22.88	690	930	499	151	192	~704
NWF ID 1696								
10/30/2017	860	64.4	580	531	334	131	63.1	>860
			840	559	345	126	62.7	
8/12/2018	860	62.86	580	620	355	119	65.8	>860
			840	620	354	118	65.0	
NWF ID 7174								
10/27/2017	1083	31.3	955	3495	1340	738	708	<920
			1070	11574	7700	2540	4240	
8/12/2018	1079	30.50	955	3909	1890	704	1150	<920
			1070	6046	3300	1090	1910	

Visit Date	Bottom Tagged (feet)	DTW BLS (feet)	Sample Depth(s)	Cond. uS/cm	Lab Results (mg/L)			Interface Depth (ft)
					TDS	Na^+	Cl^-	
NWF ID 7183								
10/20/2017	698	42.2	520	313	160	25.6	18.1	>698
			575	1345	173	121	112	
			660	4342	192	33	25.6	
8/20/2018	699	43.69	520	342	184	21.9	19.8	~554
			575	1285	776	129	131	
			660	2579	1660	285	273	
NWF ID 7349								
11/8/2017	600	18.58	440	325	188	28.1	24.8	~588
			590	971	530	167	201	
8/15/2018	599	No record	440	363	198	28.0	31.4	~580
			590	1225	622	183	271	
NWF ID 7751								
10/25/2017	628	30.00	620	3438	2040	659	1010	<538
8/10/2018	634	27.3	620	3790	1820	645	1190	<538
NWF ID 9137								
10/26/2017	648	46.71	495	308	163	25.9	8.1	~640
			640	910	556	66.9	30.5	
8/21/2018	648	51.07	495	298	161	23.7	10.7	~640
			640	783	500	61.5	34.6	
NWF ID 12811								
8/8/2018	699	8.97	640	7990	4540	1480	2690	<600
NWF ID 12838								
8/7/2018	673	43.95	570	238	117	5.63	3.2	>670
			660	195	122	6.02	3.3	
NWF ID 12840								
8/3/2018	885	68.02	755	443	245	48.6	57.3	>885
			875*	540	298	71.7	89.7	
NWF ID 12848								
7/31/2018	1149	31.3	1060	590	356	124	53.0	~1,095
			1134	1940	1110	402	497	

*QAQC Duplicates and Equipment blanks were performed at this location.

 Based on the measured conductivity values throughout the borehole.

> Indicates that the interface exists at a depth that is greater than the total depth of the logged open-hole interval.

< Indicates that the interface exists at a depth that is shallower than the bottom of the well casing.

Quality Assurance and Quality Controls

In compliance with FDEP Standards of Quality assurance, duplicate samples were collected as splits for confirmation of laboratory results. The sample from well NWF ID 7183 at a depth of 575 feet bls generated the duplicate samples. An equipment blank was collected between sample events at this well. The QA/QC results are summarized in Table 2 below.

Table 2. Quality Assurance for Laboratory Analysis Results

Analyte	**12840-875**	**12840-875 DUP**	**RPD %**
TDS (mg/L)	298	303	1.7
Sodium (mg/L)	71.7	73.4	2.3
Chloride (mg/L)	89.7	89.7	0

RPD – relative percent difference

The results of duplicate analysis indicate good agreement, within acceptable reproducible accuracy, between pairs. The results of internal laboratory standards and controls are available in the attachments.

Daily calibration was performed on the logging equipment. Continuing calibrations were performed prior to and after each logging run against a National Institute of Standards and Technology (NIST) traceable standard of 1,413 µS/cm. As reported in Table 2 of the attached files from Trinity, the RPD average was 5.6% with a 4.5 % standard deviation.

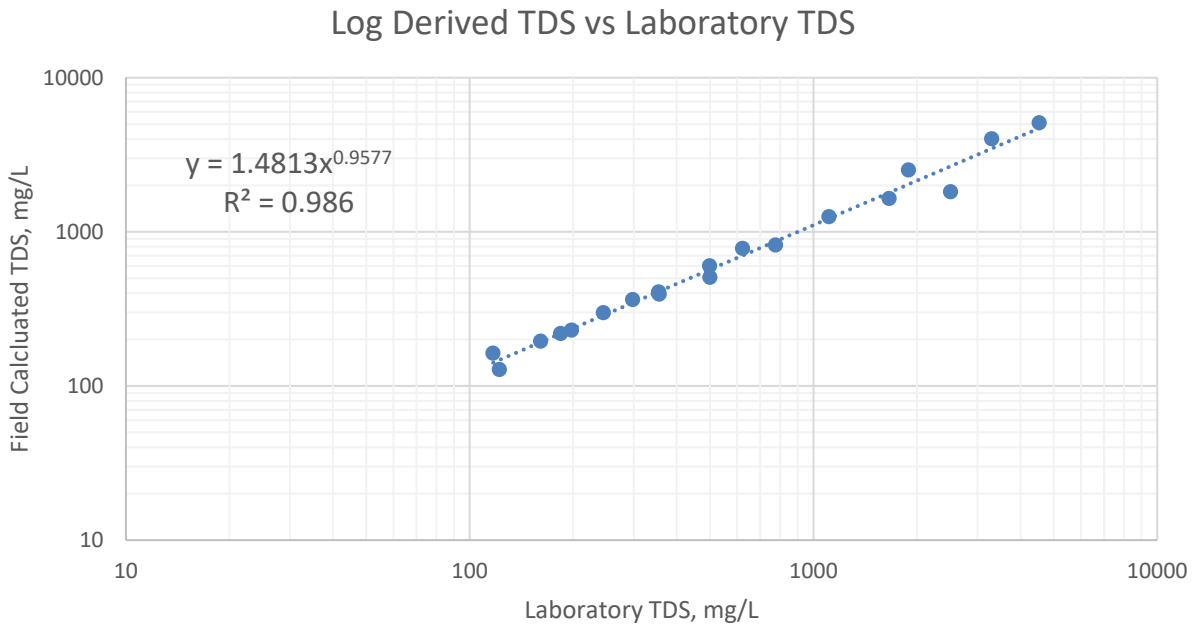

Figure 1. Relationship Between Estimated and Lab Analyzed TDS Values

The chart above was generated for the purpose of considering the general agreement between direct analysis of Total Dissolved Solids and the predicted concentration from conventional calculations of TDS from conductivity (Temperature corrected conductivity multiplied by 0.65). Because the intent of this project continues to be an effort to interpret the likelihood of an interface within the borehole using the geophysical log, the conductivity results from the log were compared to analytical results of TDS. This chart was generated from calculated TDS and laboratory reported values from Table 2 of Trinity's 2018 data package. From this chart we conclude that, generally, conductivity is a good prediction tool for TDS values. We do note that the predicted values are consistently higher than those reported by the lab. As a further note, the fluid conductivity probe being utilized for this effort is specified for uses in freshwater to near freshwater concentrations of salts. The accuracy of the conductivity probe within brackish or saline conditions is poorly defined. When well logging will take place under conditions known to exceed freshwater standards, it may be more appropriate to utilize a probe with a higher range for greater accuracy in those conditions. However, for the purpose of identifying the freshwater to saltwater interface the approach utilized for this study continues to appear appropriate and is sufficiently accurate for predicting relative TDS concentrations.

Discrete Interval Sampling Locations with Interpreted Depths to the Potable Interface - August 2018

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Sampling locations (well number)
County/State roads
Eglin AFB
County boundary

Depth is in units of feet.

> Indicates that the interface is predicted to be at a depth greater than the total depth of the well.

< Indicates that the interface is predicted to be at a depth less than the depth of the well casing.

ND Insufficient data was available for determination of the interface depth.

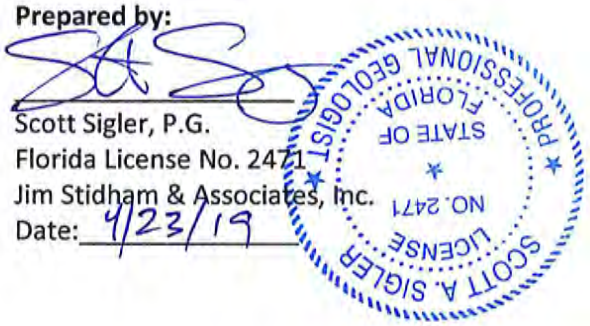
Discrete Interval Water Quality Sampling 2018– Memo Report

This document was based upon information made available to, or gathered by, Jim Stidham & Associates, Inc. (JSA). The scope of work, methodology, results, conclusions, and recommendations were based upon discussions with sub-contracted agents and regulatory agency personnel.

JSA has conducted this investigation in a manner consistent with sound practices and that level of care and skill normally exercised by members of the profession operating under similar circumstances. JSA does not assume responsibility for conditions which did not come to its actual knowledge or for conditions not recognized as environmentally unacceptable at the time this document was prepared. If conditions are discovered or determined to exist that differ from those described, the undersigned geologist should be notified to evaluate the effects of any additional information on the assessment and recommendations in this document.

The undersigned professional has prepared this report on behalf and as an employee of JSA. This document was prepared to provide a Memo Report for Discrete Interval Water Sampling for the Northwest Florida Water Management District. It should not be construed to apply to any other site.

Prepared by:



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Date: 4/23/19