

A Review of Selected Florida Aquifer Storage and Recovery (ASR) Sites and Their Geochemical Characteristics

**Florida Geological Survey
Report of Investigation No. 112**



Cover: Bradenton ASR well. Photo courtesy of Stuart Norton.

State of Florida
Department of Environmental Protection
Jonathan P. Steverson, *Interim Secretary*

Regulatory Programs
Paula Cobb, *Deputy Secretary*

Florida Geological Survey
Jonathan D. Arthur, *State Geologist and Director*

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By

Cindy Fischler, Paul Hansard,
Michelle Ladle and Chantel Burdette

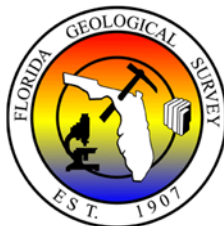
Published for the
Florida Geological Survey
Tallahassee, Florida
2015

Printed for the
Florida Geological Survey

Tallahassee
2015

ISSN 0160-0931

PREFACE



FLORIDA GEOLOGICAL SURVEY

Tallahassee, Florida
2015

The Florida Geological Survey, Florida Department of Environmental Protection, is publishing as its Report of Investigation No. 112, *A review of selected Florida Aquifer Storage and Recovery (ASR) sites and their geochemical characteristics*. The report summarizes a multi-year study of aquifer storage and recovery in Florida. Aquifer storage and recovery of treated potable or reclaimed water into confined or semi-confined permeable formations is becoming a widely accepted technology for addressing water supply issues. State, regional, county and local governmental agencies as well as the public will find this information useful in support of continued understanding and development of this important and viable alternative water resource.

Jonathan D. Arthur, Ph.D., P.G.
State Geologist and Director
Florida Geological Survey
Florida Department of Environmental Protection

ACKNOWLEDGEMENTS

This research was a cooperative effort between the Florida Department of Environmental Protection – Florida Geological Survey (FGS) and Underground Injection Control (UIC) with the individual site utilities and their consultants. Special thanks are extended to the UIC program and the FGS for financial support. Numerous individuals have contributed time for aquifer and laboratory testing, database development and management in support of this report. The authors thankfully acknowledge those staff of the various site utilities and their consultants who participated in this project collecting water samples and reporting their laboratory analyses which were used in conjunction with our analyses.

The authors appreciate our Florida Geological Survey colleagues Rodney DeHan, Frank Rupert, Richard Green, Christopher Williams, Jackie Lloyd, Harley Means and Doug Calman for their peer review of the manuscript. We also thankfully acknowledge Joe Haberfeld and Will Evans of the UIC program for review of the manuscript.

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A review of selected Florida Aquifer Storage and Recovery (ASR) sites and their geochemical characteristics

By

Cindy Fischler, P.G. 2512, Paul Hansard, P.G. 2638, Michelle Ladle P.G. 2763 and Chantel Burdette

INTRODUCTION

Aquifer storage and recovery (ASR) of treated potable or reclaimed water into confined or semi-confined permeable formations is becoming a widely accepted technology for addressing water supply issues. Fifty-five ASR facilities are either under construction or operating in Florida to help meet increasing demands for drinking water, agricultural production, and environmental restoration. In certain hydrogeological settings, however, ASR may alter the physical and chemical subsurface environment, such that the quality of water in Florida's aquifers is affected by trace metal mobilization (de Ruiter and Stuyfzand, 1998; Arthur et al., 2002; 2005; 2007; Jones and Pichler, 2007). Of particular interest is arsenic (As), a trace metal that is naturally present in some minerals (e.g., goethite, pyrite, and arsenopyrite) whose mobilization has been documented to varying degrees at ASR sites during storage and recovery at the ASR well (Arthur et al., 2002; 2007; Price and Pichler, 2002; Jones and Pichler, 2007). Arsenic has been shown to be toxic even at low-level exposures. In addition, other metals have the potential to be mobilized. These include uranium (U), selenium (Se), vanadium (V), iron (Fe), antimony (Sb), molybdenum (Mo), cadmium (Cd), and chromium (Cr) (Arthur and Fischler, 2008; Arthur et al., 2007). Many of these metals are toxic when present above certain threshold levels, maximum contaminant levels (MCL), but are not routinely monitored at all ASR sites. Understanding the water quality changes and how arsenic and other metals can be mobilized during ASR will assist in mitigating any potential adverse reactions and render ASR a more useful water management tool for guiding regulatory policy.

The Florida Department of Environmental Protection (FDEP) issues construction and operating permits to these facilities through its Underground Injection Control (UIC) section per 62-528 Florida Administrative Code. To safeguard the public, these permits specify monitoring of water quality by facility operators during each phase of the ASR process, so that any potential adverse changes in water quality can be readily identified. In addition, as part of an internal agency agreement with the UIC section, the Florida Geological Survey (FGS) has led an independent study to supplement data collected by permitted facilities. There are constituents with MCL's which are not routinely sampled and our data included some of these. These additional data allow a more in depth study into the mechanisms responsible for water quality changes.

Throughout a three-year period more than 900 water samples were collected and analyzed during the cycle testing which included the three phases of operation (injection, storage and

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recovery) at thirteen active ASR sites. These samples were analyzed by an independent laboratory for a comprehensive suite of trace metal constituents. Additional lab results and cycle test data were also collected from each site according to their individual site permits. Permit requirements vary from site to site with input from the site operators and consultants. Several factors are taken into account when setting the requirements, for example the type of water (potable or reclaimed), whether there was disinfection, past data from the site or area, and well performance. Early in the contract period, it became apparent that tracking multiple forms of data from many different sites would require a data management system. Consequently, the FGS delivered a Microsoft Access[®] database with query capabilities as well as the ability to store all data and to facilitate data retrievals and data evaluation. This database has been instrumental in allowing access to numerous data from the ASR sites for interpretation. For a detailed explanation of the Florida ASR Database see Appendix 1.

PROTOCOLS FOR ANALYSES

This study is part of a long ranging project and as such there have been ASR sites monitored which are no longer in operation as well as future sites preparing to go online. Figure 1 shows locations of all sites sampled (past and present) as well as sites which may become part of the project in the near future.

Thirteen ASR sites were selected for this project (Table 1). ASR site selection was based on a number of site attributes, including sampling history, pre-treatment technology, injectate character, storage zone characteristics, and the intended use of the recovered water. Sampling at the newer ASR sites typically included the ASR well and one or two storage zone monitor wells (SZMW); for older ASR sites with ongoing sampling histories of multiple ASR and SZMW's, sampling continued with no changes to the well inventory. A total of 58 wells were sampled during the study period.

Water samples were collected by the individual ASR facility operators at various phases of cycle testing (injection, storage, and recovery). The FGS provided each site operator with 250 mL low-density polyethylene (LDPE) bottles that had been pre-loaded with 1.3 mL of concentrated nitric acid (Fisher Scientific, trace metal grade). Operators were requested to fill one of these containers with unfiltered sample water whenever sampling was conducted under FDEP permit requirements. Sampling varied between sites according to permit requirements and facility cooperation. Generally, it was requested that injected water be sampled at the beginning, middle, and end of the injection phase; ASR wells were to be sampled weekly during storage (if the permit allowed) and twice weekly during recovery, and SZMWs were to be sampled weekly during injection and storage and twice weekly during recovery. Most ASR operators collected FGS samples on this schedule; however, sample collections at some sites were sporadic.

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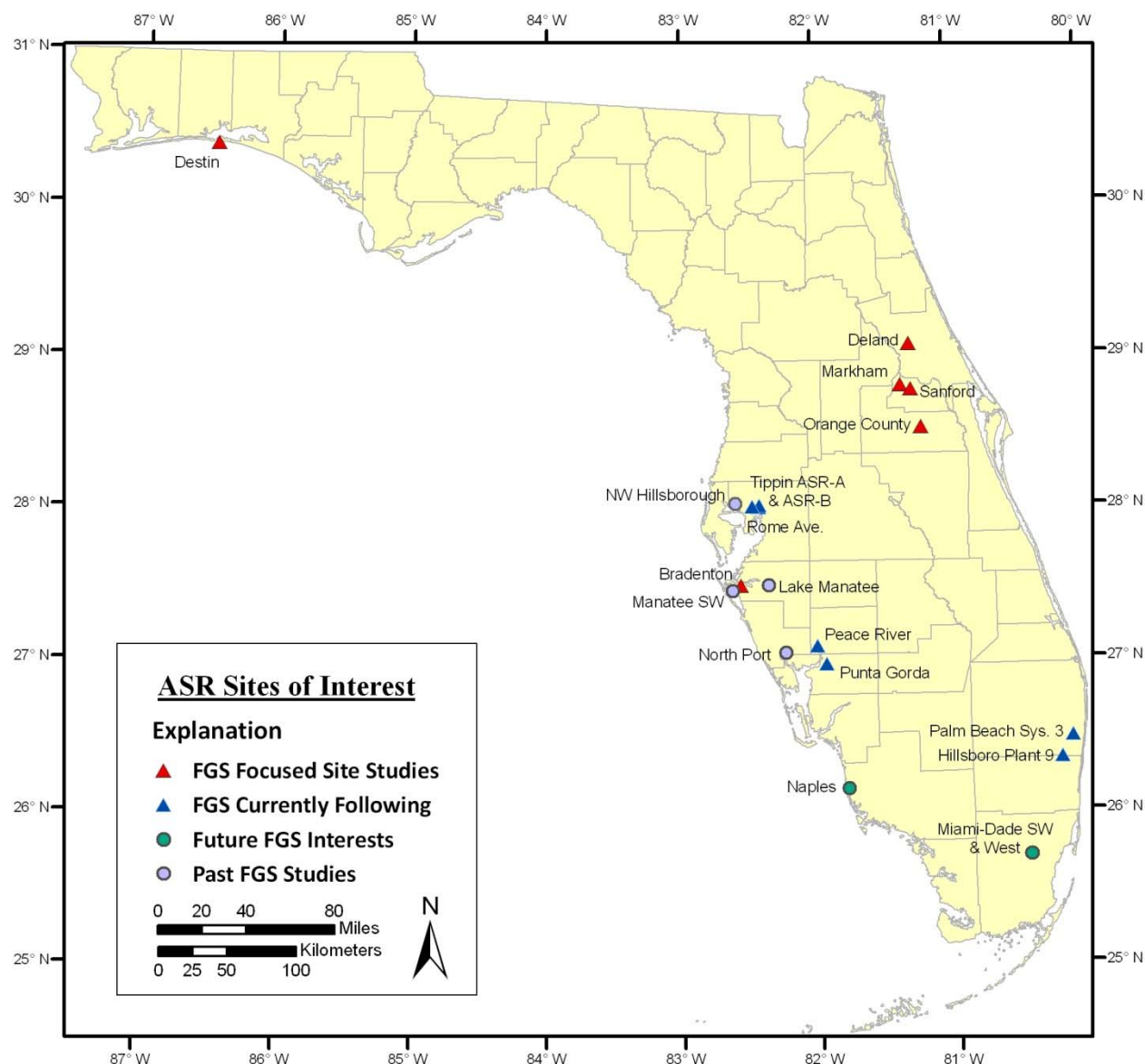


Figure 1. Map of monitored ASR sites, current, future and past

Water samples were stored at the site facility and were periodically shipped to the FGS or picked up by FGS staff for transport to the FGS laboratory in Tallahassee where each sample was logged in by site, well, sample date and phase. Because the budget did not allow for analysis of all samples, samples were prioritized based primarily on the completeness of corresponding water quality data collected under permit by the ASR facility and a desire to adequately represent the various phases of operation. Overall, of the 1,478 samples collected, 967 were analyzed for trace metals during the three-year period.

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Samples selected for analysis were first gently shaken to ensure they were well-mixed, and then sub-sampled by pouring approximately 30 mL into a clean, labeled LDPE container. The remainder of the sample was placed in storage at the FGS laboratory until all data were received. Sub-samples were shipped to Activation Laboratories Ltd. (Actlabs), Ancaster, Ontario, Canada, for trace metal analyses.

Samples were analyzed directly (without prior digestion) by inductively coupled plasma mass spectrometry (ICP-MS) and inductively coupled plasma optical emission spectrometry when needed (ICP-OES) for 67 elements (Table 2). Each analytical run consisted of up to 32 samples, with method blanks and certified reference samples run at the beginning and end of each batch. Also, every tenth sample was run in duplicate. Samples were typically run within 180 days of collection; however, a few samples exceeded holding times when travel restrictions limited prompt pickup. Quality assurance and quality control data are available upon request.

The analytical data from Actlabs were delivered to the FGS in spreadsheet format. These spreadsheets were imported into the Florida ASR Database (Appendix 1) specially designed and created to warehouse the ASR data and facilitate its evaluation. Because the Actlabs data were transmitted electronically, the necessary manipulations required to import the data were relatively straightforward and for the most part automated. This was not the case with the permit data provided by the ASR site facilities, which were of variable content and format (including PDF, spreadsheet, and hardcopy) and required extensive manual manipulation prior to linking with the Actlabs dataset. These data included site descriptions, well information, facility operating details, and permit-specific water quality data, all of which are essential for interpreting geochemical processes that may be occurring during ASR operations. Without linking the site data to the ASR database it would be difficult and time consuming to interpret the data. Entering this information into the database was a major undertaking.

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Table 1. ASR site information.

Site	County	Total wells on site		ASR Well		Water Type	Water Source	Pre-Treatment	Cycles	Status
		# ASR wells	# MWs	Hydrostrat Unit	Lithostrat Unit					
Bradenton	Manatee	1	3	Upper Floridan Aquifer	Suwannee Limestone	Potable	City of Bradenton Water Treatment Plant	(Membrana Liqui-Cel®)	9	active
David L. Tippin (ASR-A)	Hillsborough	1	5	Upper Floridan Aquifer	Ocala Limestone	Potable	David L. Tippin Water Treatment Plant	None	2	inactive
David L. Tippin (ASR B)	Hillsborough	1	4	Upper Floridan Aquifer	Avon Park Formation	Potable	David L. Tippin Water Treatment Plant	None	9	active
Deland	Volusia	1	2	Upper Floridan Aquifer	Avon Park Formation	Potable	City of Deland Water Treatment Plant	Sodium-hydrosulfide	3	active
Destin	Okaloosa	1	3	Sand and Gravel Aquifer	Citronelle Formation/ Miocene coarse clastics	Reclaimed Water	Destin Wastewater Treatment Plant	None	5	active
Hillsboro Plant #9	Palm Beach	1	2	Upper Floridan Aquifer	Hawthorn Group	Raw Surficial Aquifer Water (Biscayne Aquifer)	Production wells along the Hillsboro Canal	None	5	offline - due to drought
Orange County	Orange	1	5	Lower Floridan Aquifer	Avon Park Formation	Potable	Orange County Potable Water Distribution System	None	3	active
Palm Beach System #3	Palm Beach	1	3	Upper Floridan Aquifer	Suwannee Limestone	Potable	Raw Surficial Aquifer treated at PBCWUD WTP	None	No cycles	inactive
Peace River	Desoto	22	25	Upper Floridan Aquifer	Avon Park/ Suwannee Limestone	Potable	Peace River Facility Water Treatment Plant	None	10	active
Punta Gorda	Charlotte	4	3	Upper Floridan Aquifer	Ocala Limestone	Potable	Shell Creek Water Treatment Plant	None	15	active
Rome Avenue	Hillsborough	8	10	Upper Floridan Aquifer	Lower Suwannee/ Ocala Limestone	Potable	Hillsborough Water Treatment Plant	None	12	active
Sanford	Seminole	1	3	Upper Floridan Aquifer	Avon Park Formation	Potable	Sanford Auxiliary Water Treatment Plant	Dechlorination (sodium bisulfite) Degas (Membrana Liqui-Cel®)	4	active
Seminole - Markham	Seminole	1	3	Lower Floridan Aquifer	Avon Park Formation	Potable	Markham Water Treatment Plant	Dechlorination (sodium bisulfite) Degas (Membrana Liqui-Cel®)	2	on hold for approx. 3 years

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Table 2. Analyzed trace metals, detection limits and analysis methods.

Analyte Symbol	Analyte Name	Unit Symbol	Detection Limit	Analysis Method	Analyte Symbol	Analyte Name	Unit Symbol	Detection Limit	Analysis Method
Na	Sodium	µg/L	5	ICP-MS	In	Indium	µg/L	0.001	ICP-MS
Li	Lithium	µg/L	1	ICP-MS	Sn	Tin	µg/L	0.1	ICP-MS
Be	Beryllium	µg/L	0.1	ICP-MS	Sb	Antimony	µg/L	0.01	ICP-MS
Mg	Magnesium	µg/L	1	ICP-MS	Te	Tellurium	µg/L	0.1	ICP-MS
Al	Aluminum	µg/L	2	ICP-MS	I	Iodine	µg/L	1	ICP-MS
Si	Silicon	µg/L	200	ICP-MS	Cs	Cesium	µg/L	0.001	ICP-MS
K	Potassium	µg/L	30	ICP-MS	Ba	Barium	µg/L	0.1	ICP-MS
Ca	Calcium	µg/L	700	ICP-MS	La	Lanthanum	µg/L	0.001	ICP-MS
Sc	Scandium	µg/L	1	ICP-MS	Ce	Cerium	µg/L	0.001	ICP-MS
Ti	Titanium	µg/L	0.1	ICP-MS	Pr	Praseodymium	µg/L	0.001	ICP-MS
V	Vanadium	µg/L	0.1	ICP-MS	Nd	Neodymium	µg/L	0.001	ICP-MS
Cr	Chromium	µg/L	0.5	ICP-MS	Sm	Samarium	µg/L	0.001	ICP-MS
Mn	Manganese	µg/L	0.1	ICP-MS	Eu	Europium	µg/L	0.001	ICP-MS
Fe	Iron	µg/L	10	ICP-MS	Gd	Gadolinium	µg/L	0.001	ICP-MS
Co	Cobalt	µg/L	0.005	ICP-MS	Tb	Terbium	µg/L	0.001	ICP-MS
Ni	Nickel	µg/L	0.3	ICP-MS	Dy	Dysprosium	µg/L	0.001	ICP-MS
Cu	Copper	µg/L	0.2	ICP-MS	Ho	Holmium	µg/L	0.001	ICP-MS
Zn	Zinc	µg/L	0.5	ICP-MS	Er	Erbium	µg/L	0.001	ICP-MS
Ga	Gallium	µg/L	0.01	ICP-MS	Tm	Thulium	µg/L	0.001	ICP-MS
Ge	Germanium	µg/L	0.01	ICP-MS	Yb	Ytterbium	µg/L	0.001	ICP-MS
As	Arsenic	µg/L	0.03	ICP-MS	Lu	Lutetium	µg/L	0.001	ICP-MS
Se	Selenium	µg/L	0.2	ICP-MS	Hf	Hafnium	µg/L	0.001	ICP-MS
Br	Bromine	µg/L	3	ICP-MS	Ta	Tantalum	µg/L	0.001	ICP-MS
Rb	Rubidium	µg/L	0.005	ICP-MS	W	Tungsten	µg/L	0.02	ICP-MS
Sr	Strontium	µg/L	0.04	ICP-MS	Re	Rhenium	µg/L	0.001	ICP-MS
Y	Yttrium	µg/L	0.003	ICP-MS	Os	Osmium	µg/L	0.002	ICP-MS
Zr	Zirconium	µg/L	0.01	ICP-MS	Pt	Platinum	µg/L	0.3	ICP-MS
Nb	Niobium	µg/L	0.005	ICP-MS	Au	Gold	µg/L	0.002	ICP-MS
Mo	Molybdenum	µg/L	0.1	ICP-MS	Hg	Mercury	µg/L	0.2	ICP-MS
Ru	Ruthenium	µg/L	0.01	ICP-MS	Tl	Thallium	µg/L	0.001	ICP-MS
Pd	Palladium	µg/L	0.01	ICP-MS	Pb	Lead	µg/L	0.01	ICP-MS
Ag	Silver	µg/L	0.2	ICP-MS	Bi	Bismuth	µg/L	0.3	ICP-MS
Cd	Cadmium	µg/L	0.01	ICP-MS	Th	Thorium	µg/L	0.001	ICP-MS
					U	Uranium	µg/L	0.001	ICP-MS

FINDINGS

The rocks that primarily compose the aquifer matrix, and the trace minerals they contain, have attained their present chemical and physical state partly as a result of long-term interactions with the ambient waters. The introduction of waters with different characteristics can alter the previously established chemical equilibrium between the native groundwater and the aquifer rock matrix. To re-establish that equilibrium, chemical reactions including mineral precipitation and dissolution may occur; the latter process has been shown to release trace metals in addition to arsenic such as Se, V, Sb, Mo, Cd, Cr and U from the rock matrix. In general, the water quality of one out of four samples analyzed in this study is affected by water-rock interactions. A better understanding of these processes contributes to development of ASR operational methods that will go far toward mitigation of water quality changes

The US Environmental Protection Agency (EPA) sets drinking water standards. The National Primary Standards, which are enforceable by EPA, set the levels of contaminants (MCL's) that may pose a health risk when present in drinking water. These contaminants are known or expected to occur in public water systems. Secondary Standards are not enforceable by EPA, but are enforceable by the state, and establish recommendations for contaminants that pose aesthetic concerns such as taste, color and odor. By using the database to query the ASR sites, a summary of any trace metal concentration distributions, as well as exceedances can be summarized. Observations drawn from review of water quality changes can help guide regulatory policy and lead to a better understanding of potentially adverse water-rock interactions that may then be mitigated. Concentrations in exceedance of primary drinking water standards were observed at ten of the thirteen ASR sites. Most of the exceedances were for arsenic which occurred in about 25 percent of the total (967) samples analyzed during all phases; but also observed at much lower frequencies (0.2-0.7 percent) were exceedances for chromium, lead and antimony. Arsenic exceedances were present at nine of the thirteen sites. Antimony, which co-occurs with As in some minerals (e.g. pyrite), was in exceedance at three sites. Three lead and two chromium exceedances were observed; however, it is conceivable the samples were adversely affected at some point during contact with infrastructure. These exceedances were not reoccurring issues. The current Cr MCL is 100 µg/L for Total Cr. However, EPA may make a ruling on Cr(VI) concentrations which could change the frequency of exceedances especially if the MCL is lowered (e.g. California recently adopted an MCL of 10 µg/L Cr(VI)). For further discussion see Recommendations Section.

From our list of tested analytes (Table 2) no other primary exceedances were observed. These analytes included the following regulated metals, beryllium, barium, copper, cadmium, mercury, selenium, thallium and uranium. For a complete list of Primary Drinking Water Standards, see [U.S. Environmental Protection Agency \(2009a\)](#). See Appendix 2 for FGS data from all sites.

It is not uncommon for secondary standards to naturally occur above the MCL in the aquifer, especially sodium and iron. Our sites confirmed this as all monitored sites had, at some point, levels of secondary drinking water standards above the MCL; aluminum (Al), iron (Fe),

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manganese (Mn), strontium (Sr), and sodium (Na) accounted for most of these. Seven sites had elevated levels of Al, about 0.9 percent of all analyzed samples. Aluminum in the form of alum is used by some municipalities in the purification of drinking water. Exceedances for Mn were noted at eight sites, six of which routinely had Fe concentrations above the MCL. Also shown are the occurrences of Mo above 40 µg/L, and high levels of bromine (Br) at certain sites. Neither compound is currently regulated; however, the EPA has issued a health advisory level (HAL) of 40 µg/L (U.S. Environmental Protection Agency, 2011) for Mo, and it is currently a candidate for regulation under the Safe Drinking Water Act (U.S. Environmental Protection Agency, 2009b). Health Advisories are concentration guidelines for which non-cancer health effects are not anticipated to occur over a specific duration of exposure, in this case, over the course of a lifetime (U.S. Environmental Protection Agency, 2011). At eight ASR sites, Mo was routinely found at levels exceeding the HAL. Bulk rock, electron probe microanalyses and geochemical analyses suggest that Mo and As naturally co-occur, and laboratory studies conducted by the FGS have shown that like As, Mo can readily leach from Florida carbonates (Arthur et al., 2007). Bromine is included because of its potential to form bromate (BrO_3^-) during certain water treatment processes such as ozonation (Amy et al., 1997). Bromate is regulated by the EPA as a potential carcinogen, with an MCL of 10 µg/L (U.S. Environmental Protection Agency, 2009a). High bromine levels may prove useful in identifying which sites may have the potential for bromate occurrence at levels greater than the MCL. Bromine was common at many sites with values up to 4,400 µg/L. There may also be a possibility of the formation of brominated trihalomethanes. Bromate analysis is not a permit requirement at any of the sites in this study.

The FDEP has set a standard for sodium of 160 mg/L based on potential human health effects (Florida Department of Environmental Protection, 2010). The EPA health-based value is not to exceed 20 mg/L for individuals on restricted diets because of heart conditions (U.S. Environmental Protection Agency, 2011). Elevated sodium concentrations greater than 160 mg/L were present at 11 sites. Six of the sites had concentrations greater than 20 mg/L for every analyzed sample. The secondary standard of 160 mg/L was surpassed by 364 samples about 38 percent of the analyzed samples. The standard for strontium 4000 µg/L was exceeded in 381 samples, about 39 percent of all analyzed samples.

CASE STUDIES

Site Study Settings

Case study selections were based on a number of site attributes, including sampling history, pre-treatment technology, injectate character, aquifer, storage zone formations and characteristics, and the intended use of the recovered water. An effort was made to include facilities with different treatment processes and storage zone formations. The six ASR facilities (Table 3) of focus in this report encompass five counties and three water management districts:

- Bradenton in Manatee County

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- Seminole-Markham and Sanford in Seminole County
- DeLand in Volusia County
- Orange County in Orange County
- Destin in Okaloosa County

Table 3 lists the site names and counties as well as the number of wells and their total depth, the storage zones with depth intervals, recharge – recovery rates, distance of monitor wells from the ASR well and permit required cycle test information for each site. Geological formations used as the storage zone varied between sites. Bradenton utilized the Suwannee Limestone as the storage zone; Destin utilized the Citronelle Formation coarse clastics while the other four sites utilized the Avon Park Formation.

Five of the focus sites are for potable water (See Table 1). Overall, the potable ASR sites have been more thoroughly studied and have a more complete data set.

Destin is the only case study which utilized reclaimed/reuse water for injection. Another reclaimed water ASR site, Naples, was just beginning ASR operations and therefore not included in this report but may be part of future studies. Destin and Naples are the first reclaimed/reuse sites involved in this project. There is an increasing interest in using reclaimed/reuse water as a water management tool for aquifer recharge and exploring recharge options for enhancing minimum flows and levels (MFLs).

Reclaimed waters can potentially introduce carbon as a substrate to the aquifer, which would facilitate bacterially induced remineralization and alter the previously established chemical equilibrium between the native groundwater and the aquifer rock matrix. Thus, we recommend reclaimed water quality be monitored not only for total organic carbon (TOC) but for ammonia, nitrate, phosphate and disinfection by-products. Changes in physical parameters such as dissolved oxygen (DO), pH and oxidation-reduction potential (ORP) should also be noted. Chemical reactions that re-establish equilibrium can release trace metals from the rock matrix. Further research will help to better define subsurface processes associated with reclaimed water use by ASR sites.

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Table 3. Six ASR case study sites.

Site	County	Recharge/Recovery Rates (mgd)	Cycle Info		Wells	Total Well Depth (ft. bls)	Storage Zone (ft. bls)	Distance from ASR well (ft.)
Bradenton WACs 94442 Permit # 318144-001-UO	Manatee	1-2	#1 #2 #3 #4 #5 #6 #6a #7 #8 #9	11/9/04 - 12/01/04 12/1/04 - 12/20/04 12/24/04 - 1/19/05 1/20/05 - 3/01/05 8/9/05 - 9/22/05 10/11/05 - 1/20/06 3/21/06 - 6/23/06 8/21/07 - 1/2/08 7/28/09 - 2/15/11 8/9/11 - 6/28/2012	ASR-1 SZMW-1 AFMW-1 WTMW-1	505 548 230 15	415-505 400-548 200-230 5-15	0 224 20 15
DeLand WACs 98721 Permit # 64-0272120-001-UC	Volusia	1	Pre-Cycle #1 #2 #3	7/20/10 - 8/4/10 9/10/10 - 11/10/10 1/26/11 - 3/29/11 5/31/11 - 9/2/11	ASR SZMW-1 SZMW-2	220 220 220	190-220 190-220 190-220	0 80 380
Destin WACs 98505 Permit # 0221642-003-UC thru 009-UO/5X	Okaloosa	2.125	#1 #2 #3 #4 #5	7/10/09 - 8/1/09 8/21/09 - 9/18/09 10/21/09 - 12/14/09 5/12/10 - 10/7/10 Began 2/8/11 (Rec/Inj as needed)	ASR-1 SZMW-1 SZMW-2 SMW-1	171 150 160 35	116-166 110-150 110-160 25-35	0 225 375 50
* Orange County WACs 98698 Permit # 315945-001-UC	Orange	2.88	Pre-cycle #1 #2 #3	2/1/10 - 3/25/10 3/26/10 - 6/21/10 6/28/10 - 10/14/10 11/1/10 - 8/19/11	ASR-1 CZMW-1 LFMW-1 LFMW-2 SA-1 SA-2	1200 950 1200 1200 15 15	1045-1190 900-945 1045-1200 1100-1200 5-15 5-15	0 100 100 500 N/A N/A
Sanford WACs 97848 Permit # 59-0307357-001-UC	Seminole	1-1.5	#1 #2 #3 #4	4/6/09 - 5/29/09 6/22/09 - 8/14/09 1/25/10 - 6/14/10 6/28/10 - 2/16/11	ASR SZMW-1 SZMW-2 CZMW	630 628 630 480	530-630 530-628 530-630 430-480	0 150 110 60
Seminole-Markham WACs 95586 Permit # 59-0250382-005-UC	Seminole	up to 0.5	#1 #2	3/3/10 - 6/30/10 1/24/11 - 3/11/11	ASR SZMW-1 SZMW-2 CZMW-1	992.6 991.4 996.9 770	940-992.6 940-991.4 940-996.9 718-770	0 150 330 63
* CZMW-1 and LFMW-1 are a single Dual-Zone MW ft. bls = feet below land surface. mgd = million gallons per day.								

Bradenton



Figure 2. Bradenton site.

Monitoring at the Bradenton site included one ASR well and one storage zone monitor well (SZMW-1) Figure 2, Table 3. This site began as a standard ASR site, injecting potable water into the Suwannee Limestone, storing the water, then recovering the water. Site data from past cycle tests 1-7 have shown arsenic concentrations as high as 75 $\mu\text{g/L}$ in the ASR well and 20 $\mu\text{g/L}$ in the SZMW-1 during the recovery period. These continued arsenic exceedances led the city of Bradenton to consider Liqui-Cel[®] contactors for degasification treatment of the injectate water, and starting with cycle test 8, Bradenton was the first site to use the degas-dechlorination treatment. Sodium bisulfite was used to remove chloramines prior to membrane degasification to increase the

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life span of the contactors while also reducing the presence of other oxidizing agents. After the degas-dechlorination of the injectate, DO is measured in-line at the degas skid with an analyzer capable of measuring in the single digit ppb concentrations. Average DO concentration of the injectate after degas was 6 µg/L (ppb).

Our analyses during cycle test 8 showed one arsenic exceedance of 14.5 µg/L (Figure 3) in the ASR well at the beginning of recovery with values becoming lower as the recovery progressed. There was also a significant reduction in molybdenum during cycle test 8 (Figure 4). Previous cycle tests recorded values as high as 388 µg/L during recovery. These decreases appear to be due to the degas-dechlorination treatment of the injected water. With Bradenton's success in using degasification to lower arsenic levels, Sanford and Seminole-Markham have also turned to degas as a solution to the arsenic issue. The highest DO value recorded during injection for cycle test 8 at either well was less than 0.3 mg/L as measured with the YSI 556 MPS field probe. This instrument does not have the resolution of the inline DO detector used for the injectate and underscores the importance of the conditions under which DO measurements are made.

It is difficult to evaluate water quality changes when initial conditions are not precisely known or otherwise available, for instance the native groundwater iron concentration is unknown and the only "native" sulfide concentration was taken after cycle test 1 recovery. With this limitation it is assumed that native iron concentration is low (near the detection limit) as previous cycle tests report iron below the detection limit and the sulfide sample, as mentioned above, was around 2.3 mg/L. Given these assumptions, iron was observed to increase during cycle test 8 recovery at the ASR well and not at the SZMW (Figure 5). The first sample from the ASR well during cycle test 8 recovery showed elevated iron of 200 µg/L and may be explained by possible iron colloid formation near the wellhead, as the initial water from the well has appeared slightly iron stained. Iron concentrations in subsequent samples started low and steadily increased from ~60 µg/L and leveled off at ~200 µg/L. Previous cycle tests with high DO showed iron at or near the detection limit for both wells with an occasional high value at the start of recovery which then dropped back to below detection. The increase through recovery for cycle test 8 at the ASR well and not the SZMW may be attributed to some dissolution of hydrous ferric oxides (HFO). Previous cycle tests using high DO injectate may have enhanced HFO formation near the ASR well which is now being reductively dissolved as the native groundwater conditions return.

Sulfate and sulfide appear to be approaching what are considered to be native conditions during cycle test 8 recovery (Figures 6 and 7). The native groundwater sulfate value was ~ 640 mg/L, sulfide at the end of cycle test one was ~2.3 mg/L. The injectate water sulfate value was ~155 mg/L and sulfide was below detection. It is possible that as the native sulfide conditions returned, the HFO's were reductively dissolved thus causing the observed increase in iron concentrations through recovery (Canfield, 1989; Poulton, 2003; Burdige, 2006).

The ORP at the ASR well during cycle test 8 injection was greater than +92 mV, but dropped during recovery to -227 mV, while the SZMW during the same time period was for the most part below -100 mV during injection and dropped to -250 mV during recovery (Figure 8). The ORP measurements were made using a platinum Ag/AgCl reference electrode. The data set

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for Bradenton can be found in Appendix 2. Future plans for Bradenton include adding a one or more additional ASR wells at a different location.

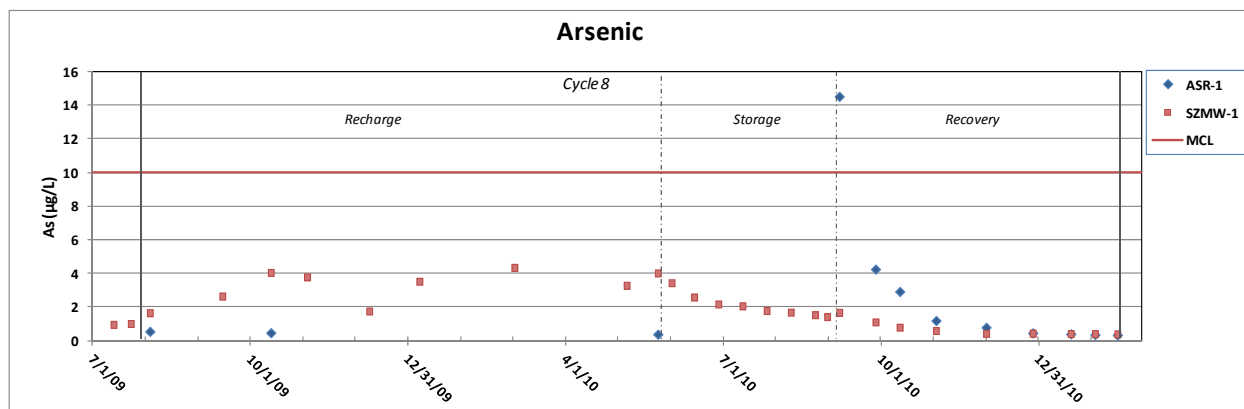


Figure 3. Cycle test 8 arsenic concentrations, Bradenton ASR.

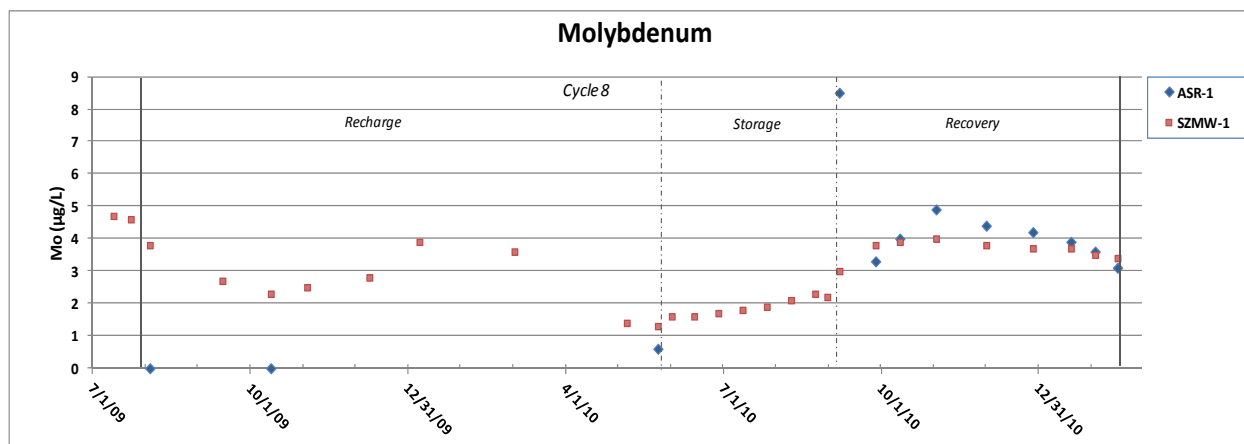


Figure 4. Cycle test 8 molybdenum concentrations, Bradenton ASR.

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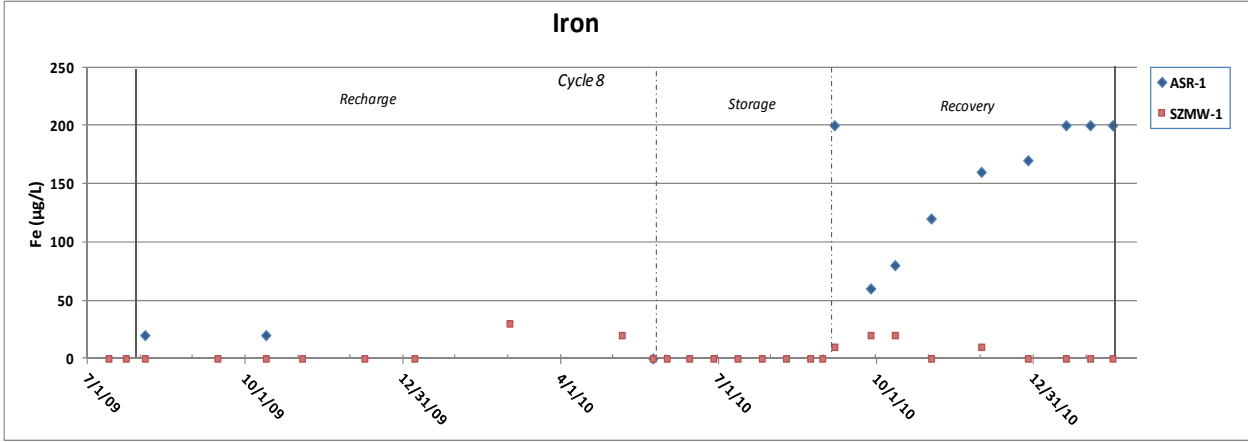
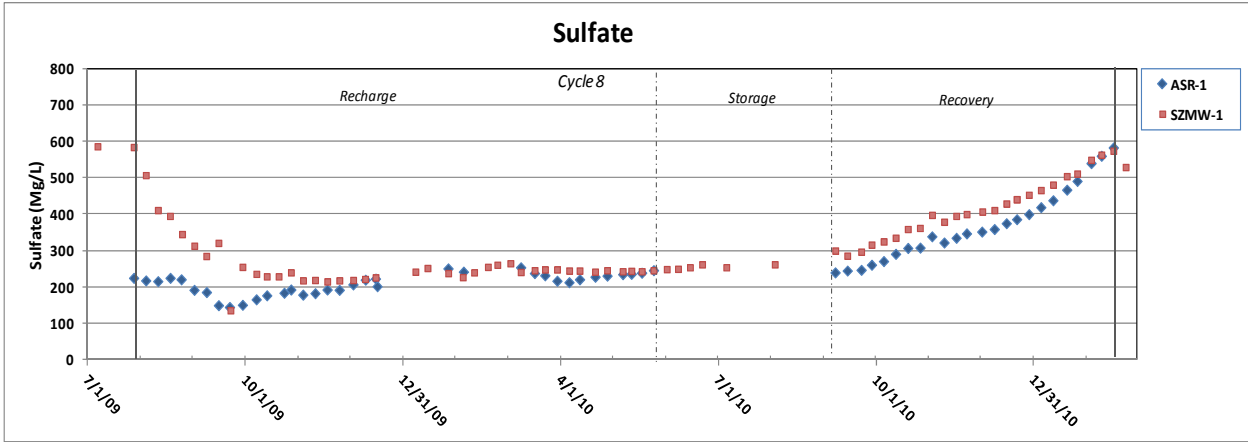


Figure 5. Cycle test 8 iron concentrations, Bradenton ASR.



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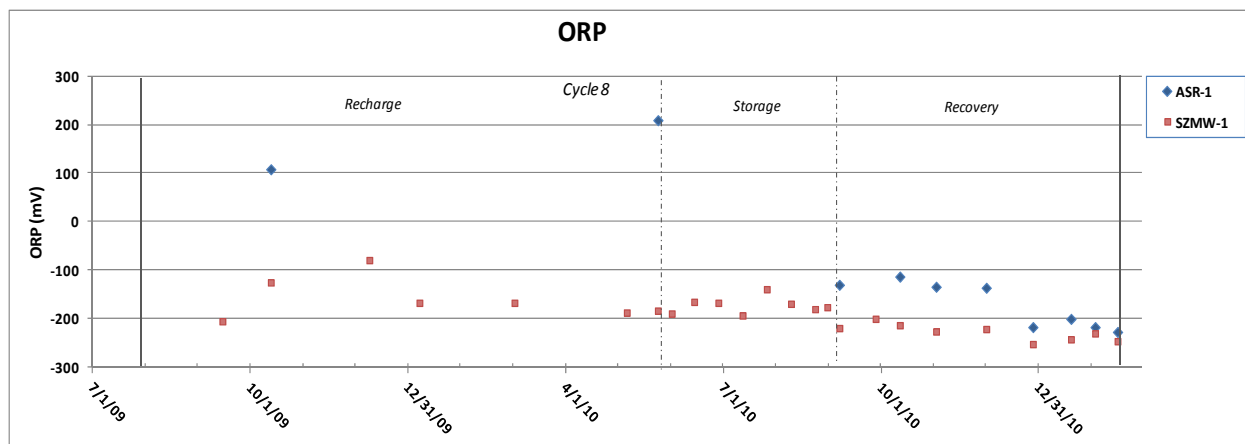


Figure 8. Oxidation Reduction Potential Cycle test 8, Bradenton ASR.

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DeLand

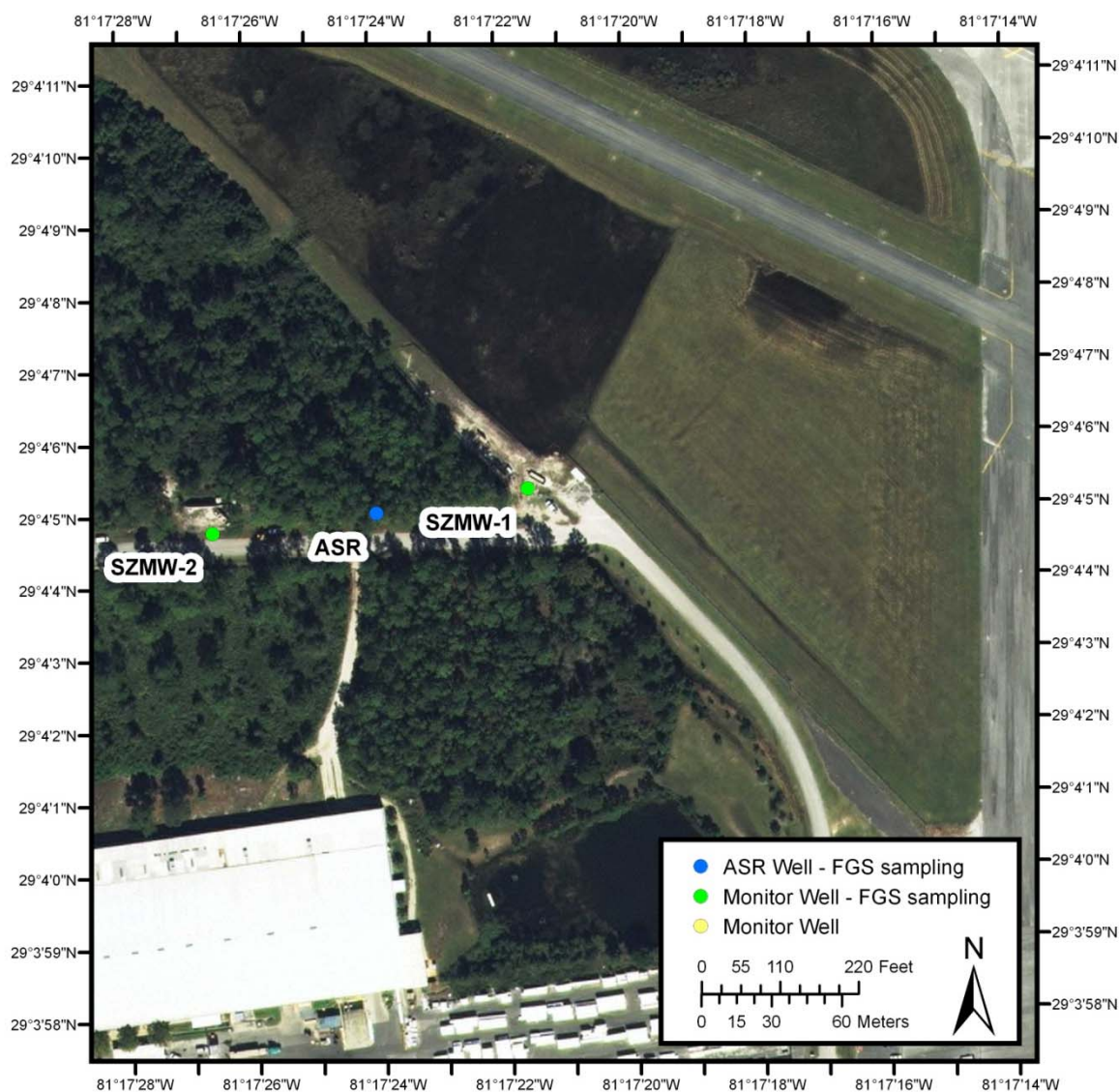
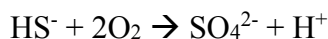


Figure 9. DeLand site.

The site is located at the DeLand Municipal Airport. Monitoring at the DeLand site included one ASR well and two SZMW's (Figure 9, Table 3). The site injected potable water from the city of DeLand with chemical addition for pretreatment intended to mitigate arsenic release during ASR activities. Iron levels at the DeLand site were quite high compared to other ASR facilities. Figure 10 shows changes in Fe concentrations of the water from pre-cycle testing through cycle test 2. Although the concentrations were highly variable, iron appears to have been released by chemical reactions occurring between the injected water and the surrounding rock matrix, causing iron concentrations to, at times, exceed 8,000 µg/L during the second cycle. It is

likely that the subsurface release of iron at this facility was due to the manner in which the recharge water was chemically treated prior to injection.

Sodium hydrosulfide (NaHS) was added to the recharge water to remove oxygen prior to injection, a strategy employed to mitigate release of As from pyrite (Pearce and Waldron, 2011). The deoxygenation reaction proceeds via:



Assuming that the recharge water contains ~6 mg/L O₂ prior to treatment, the equation predicts that complete O₂ removal should consume 3.1 mg/L NaHS. According to the site operating reports, this was the approximate amount added. However, sulfide was frequently detected at levels up to 5 mg/L in the recharge water and during all operational phases. This suggests that the NaHS concentration of the injectate was perhaps not well-controlled; or that the initial oxygen levels may have been less than believed at times, leading to excess sulfide in the injectate. A third possibility is that much of the added sulfide may not have reacted with O₂; the above reaction is thermodynamically favored, but if the rate of reaction was slower than the rate of recharge, the injectate may have entered the formation with substantially more sulfide than intended.

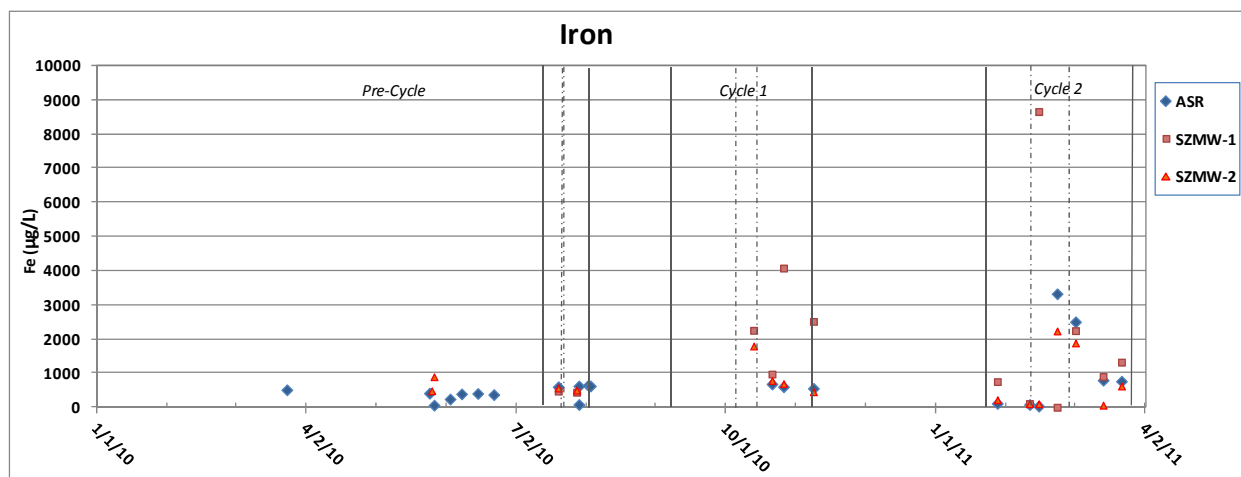


Figure 10. DeLand iron concentrations during cycle testing.

It is possible that the excess sulfide in the injectate reductively dissolved HFO, thus causing the high observed iron concentrations (Rickard, 1974; Canfield, 1989; Dos Santos Afonso and Stumm, 1992; Poulton, 2003; Burdige, 2006). The mechanics of this reaction and the chemical factors influencing reaction rates are subjects of active research; however, most studies suggest that during iron reduction, sulfide is oxidized to elemental sulfur. This represents a loss of two electrons, and requires that two Fe(II) be produced for each sulfide molecule that reacts. Given sulfide concentrations of 1-5 mg/L (30 – 150 micromoles [µM]), and assuming all sulfide reacts with iron oxide, Fe(II) reaction products of 3,300 to 16,500 parts per billion (ppb) are expected.

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Recent laboratory studies of HFO reduction by hydrogen sulfide indicate that much of this reduced iron is potentially soluble, present either as sorbed or aquated Fe(II), or as neutral FeS⁰ complexes (Poulton, 2003).

As discussed below, incomplete knowledge of the mechanisms by which HFO is reduced by H₂S and of the conditions favorable for FeS precipitation has direct consequences for the feasibility of various ASR water treatment strategies. In an effort to minimize iron release, consultants for the City of DeLand ASR facility (Cardno ENTRIX) received permission from FDEP to adjust the pH of the injectate from 7 to 8 during cycle test three. In the cycle test two report (Appendix 3, Cardno ENTRIX, 2011a), thermodynamic calculations were presented to support the contention that pH adjustment would shift the sulfide equilibrium in favor of deprotonated free sulfide ion (S²⁻). It was suggested that this would cause the ion activation product for FeS, i.e. [Fe²⁺][S²⁻] to exceed the solubility product (K_{SP}) for FeS, and that the undesirable dissolved Fe would be precipitated as FeS. Unfortunately, this argument rests upon two tenuous assumptions: first, that the equilibrium constants chosen for the calculations are valid and appropriate; and second, that FeS precipitation is pH-dependent.

It is difficult to evaluate the choice of the equilibrium constants because no geochemical literature was cited in the report to indicate the source(s) for the constants. However, two of the constants used to determine the sulfide speciation disagree with published values. For example, a value of 5.7×10^{-8} (no units given) was assumed for K₁; this value disagrees somewhat with the accepted value of 1.02×10^{-7} moles (M), determined at 25°C by Suleimenov and Seward, 1997. Also, the value assumed for K₂ (1.2×10^{-15}) significantly disagrees with the currently accepted value of 2.6×10^{-19} M (Schoonen and Barnes, 1988). Recalculating the concentration of free sulfide ([S²⁻]) at pH 8 using these published constants yields a value of 7.7×10^{-16} M, far lower than the value of 3.2×10^{-12} M presented in the cycle two operating report. If this lower value for [S²⁻] is substituted into the FeS solubility equation (given in Appendix 3 of the operating report, Cardno ENTRIX, 2011b), the new result indicates that the proposed pH adjustment should have little effect on actual Fe concentrations, contrary to the conclusion of the report. Indeed, the third cycle test showed little decrease in Fe concentrations (Cardno ENTRIX, 2011b), which suggests that the calculations in support of the pH increase may have been in error. However, the point of this discussion is not necessarily that one set of constants is right or wrong, but more generally that the choice of constants can have a large influence on predicted concentrations, which in turn may govern the choice of treatment strategy. Because the uncertainty and applicability of the constants are difficult to assess, thermodynamic calculations would be greatly assisted by empirical data, such as provided by bench-scale experiments, prior to field-scale experimentation.

These calculations are based on the logic presented in the site operating report; (i.e. that FeS precipitation is governed by [S²⁻], which in turn increases with increasing pH). However, this assumption has not been supported by recent research into the mechanics of FeS precipitation (Davidson et al., 1999; Rickard, 2006). In particular, the study by Rickard (2006) found “no significant dependence of the solubility of FeS on [S²⁻] in the neutral to alkaline pH range” and instead found that FeS solubility was controlled primarily by direct formation of neutral aqueous

FeS⁰ complexes (i.e., its intrinsic solubility). Thus, factors leading to the formation of the neutral complex may ultimately govern removal of Fe from solution by precipitation of FeS_(s). Complex formation is expected to be hindered if reduced iron is slow to release from the oxide surface because of surface effects that lower the reactivity of Fe(II). Controlled experiments by Poulton (2003) studying the reaction of excess ferrihydrite with sulfide showed that Fe(II) desorption occurred much more slowly than its production; the same experiments showed that at pH 7.5, only 7-15 percent of the reduced iron was precipitated as FeS_(s). Poulton (2003) also noted that Fe(II) continued to desorb “for a considerable period of time after all the sulfide had reacted”.

These observations and insights into the fate of Fe released by sulfide reduction of ferrihydrite are based on highly controlled laboratory experiments, using well-defined solid phases. It is therefore difficult to evaluate the extent to which these experimental data may apply to field observations at the DeLand ASR site. While the continued release of Fe during cycle test 3, even after pH adjustment, is consistent with the experimental predictions discussed above, the exact mechanisms responsible for the high Fe concentrations remain speculative. Bench-scale leaching or column studies using geochemically well characterized core material from the storage zone could be useful in elucidating these mechanisms, and in identifying specific formational characteristics that increase rock susceptibility to NaHS-treated injectates.

Release of As by reductive dissolution of HFO has been well-documented (Pedersen et al., 2006). Indeed, As was released during these cycle tests; however, concentrations remained below regulatory levels. This may be because, at the DeLand site, little of the bulk rock As is actually associated with HFO; however, element-mineral associations likely vary from site to site. Therefore, the effectiveness of the NaHS treatment may prove to be limited only to areas where HFO is a minor phase in the bulk rock, and where little As is associated with that phase. Alternatively, several studies have shown that in the early stages of HFO reduction, little As is initially mobilized (Pedersen et al., 2006; Appelo, 2006). This is because of its tendency to rapidly resorb to HFO surfaces that have not yet been dissolved (Pedersen et al., 2006). These studies indicate a critical point in HFO reduction, after which As solution concentrations rapidly increase. If this is the case at DeLand, there is a possibility that more As could be released by future cycle test as NaHS treated injectate dissolves the remaining HFO.

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Destin

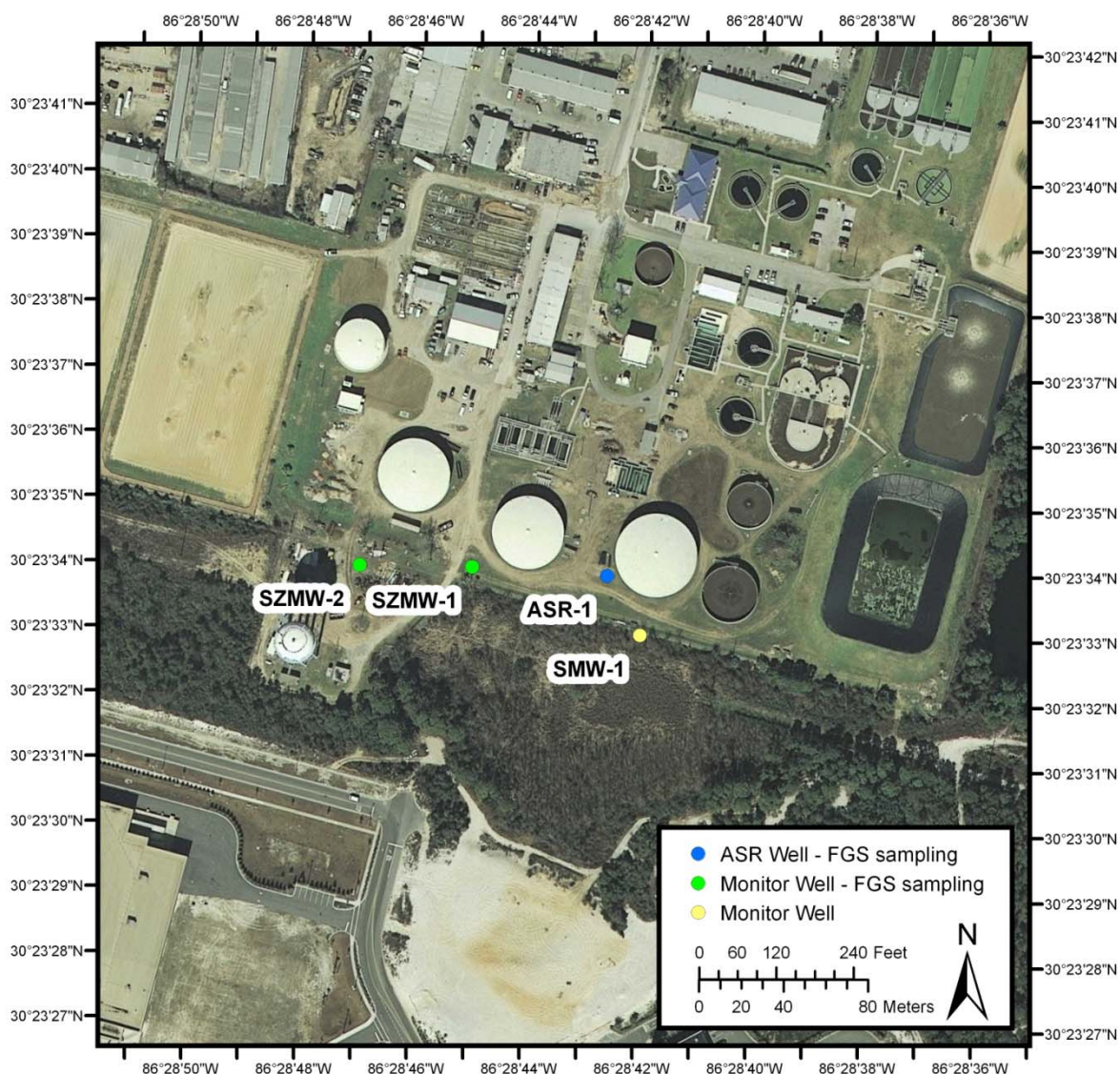


Figure 11. Destin site.

Destin, one of the newest sites added to this study (Figure 11), is the first to use the sand-and-gravel aquifer and is the first site in this study using reclaimed water as the injectate. The recovered water will be sent to the reuse system. No samples were received prior to cycle test 5 and at the time of this report, only ten samples had been analyzed; none of them from the ASR well. The site is presently collecting samples from the ASR well and two SZMW's (Table 3) for FGS; however, due to budget constraints, the analyses are on hold. It is hoped that funding will become available as the increase in the use of reclaimed/reuse sites and their application warrants further research.

The monthly operating reports (MOR's) for this site indicated 4-7 mg/L of total organic carbon (TOC) in the reclaimed water injectate as well as the occasional occurrence of regulated

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forms of carbon such as chloroform, bromodichloromethane, dibromochloromethane and bromoform whose sum total make up trihalomethanes (THM's), which are regulated due to their potential carcinogenicity. These have, on occasion, exceeded the MCL of 80 µg/L in the injectate (Schlumberger Water Services and Maliva, 2011a, 2011b). Bromodichloromethane and bromoform have EPA maximum contaminant level goals (MCLG) of zero (U.S. Environmental Protection Agency, 2011) which have also been exceeded on occasion at this site (Schlumberger Water Services and Maliva, 2011a, 2011b). Injection of carbon sources can induce chemical reactions and cause metals mobilization. It is worth noting that sulfide measurements are not a part of the permit requirement, given the amount of TOC and nitrate in the injectate it would be helpful to have this measurement as it is likely that reductive dissolution is occurring.

The consultants have seen As exceedances upon recovery and have reported that the arsenic concentrations in the ASR well are decreasing and neither the elevated arsenic concentrations nor the injectate have been observed in the two SZMW's (Schlumberger Water Services and Maliva, 2010a). The current study has not received a sufficient number of samples to accurately describe arsenic and other trace metals behavior which may occur during ASR operations at the Destin site.

The higher TOC, THM and nitrate levels present in the injectate make this an interesting case study for reclaimed ASR. This site has expanded to seven ASR wells and four SZMW's, further study could greatly increase our understanding of the geochemical processes in a clastic aquifer during reclaimed/reuse ASR and help mitigate As releases at the site.

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Orange County

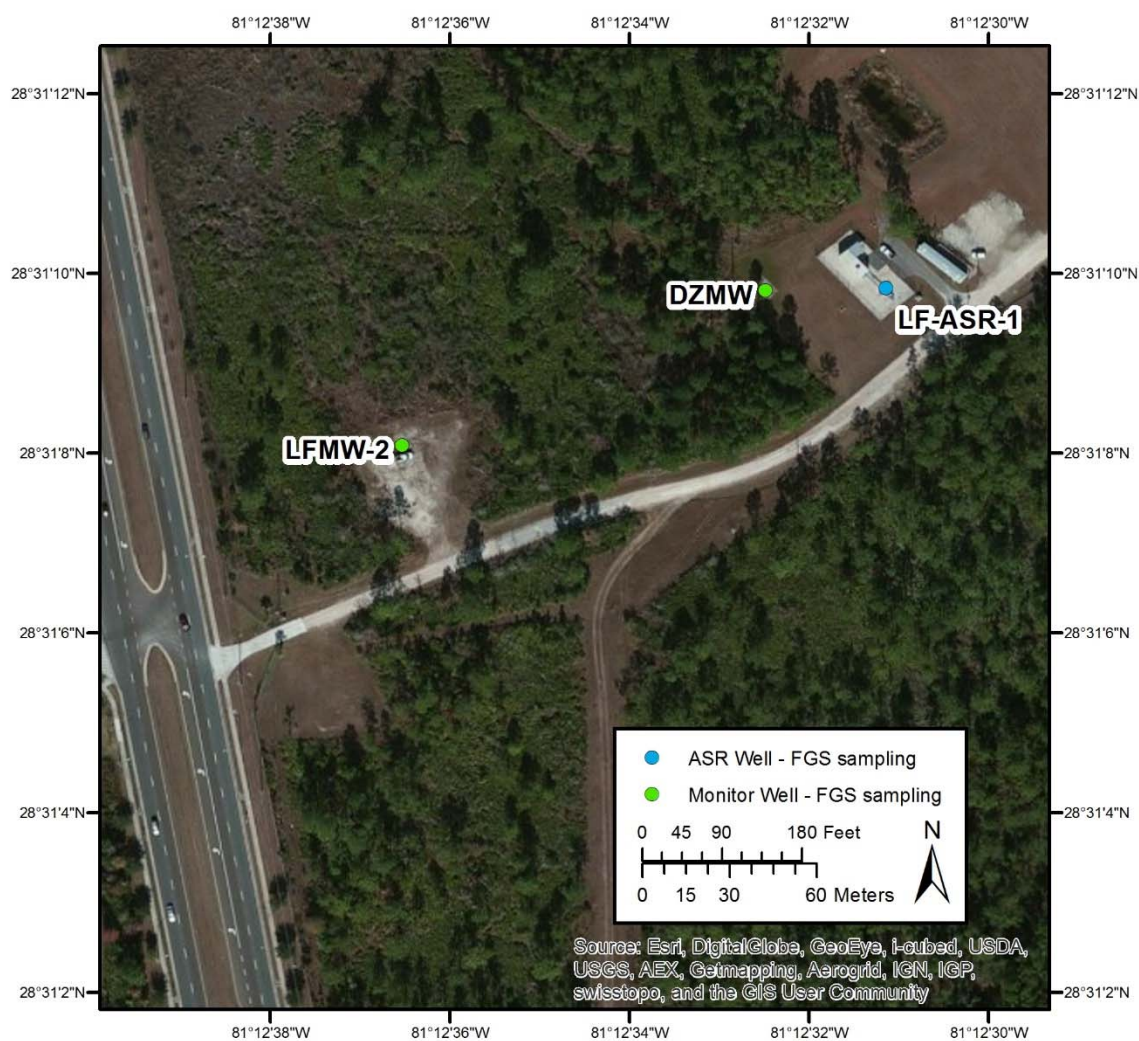


Figure 12. Orange County site.

The Orange County ASR site opted for a technique utilizing a “target storage volume” (TSV) in which the injected water is stored around the ASR well even after recovery. A pre-cycle injection of 180 million gallons (MG) of potable water with no recovery was completed before cycle test 1 began. Subsequent cycle tests continued to increase the TSV to some degree but also included partial recovery of the injected water. At the end of cycle test 2, the TSV of injected water was 275 MG. Cycle test 3 injected an additional 270 MG and recovered 270 MG. Monitoring at this site included the ASR well and the two SZMW’s (LFMW-1 and LFMW-2) Figure 12, Table 3.

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The injectate was treated drinking water from Orange County Utilities; there was no degasification or dechlorination prior to injection. The highest dissolved oxygen values (Figure 13) were observed in LFMW-1 during injection, with the values decreasing during storage and recovery. Even with the decreasing DO values, the three wells appear to have higher than expected DO (frequently between 1-2 mg/L) during storage and recovery given the detectable sulfide and negative ORP values (Figures 14 and 15). Similar observations concerning high DO have been noted at other sites, underscoring the importance of the conditions under which the DO measurements were taken.

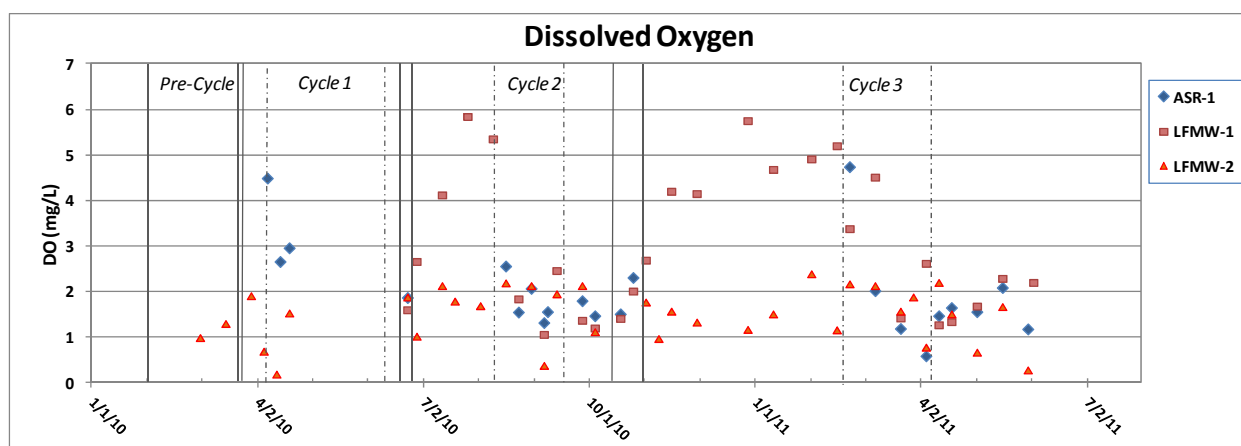


Figure 13. Dissolved oxygen, Orange County ASR.

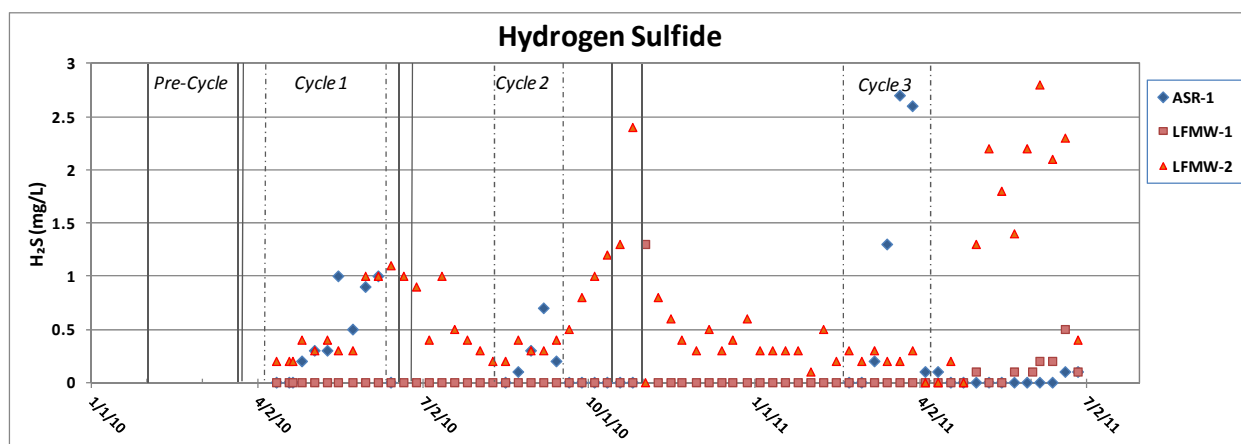


Figure 14. Hydrogen sulfide concentrations, Orange County ASR.

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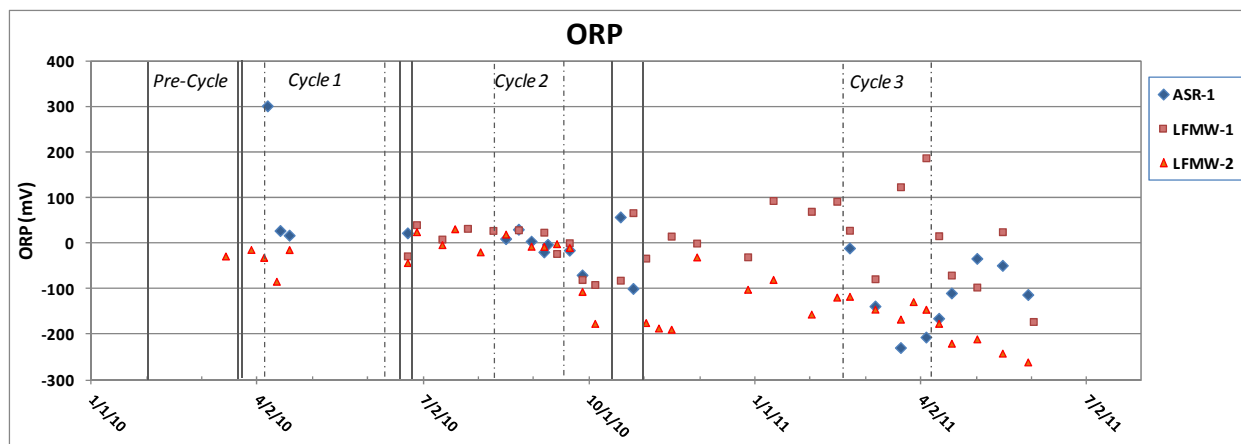


Figure 15. Oxidation reduction potential, Orange County ASR.

Elevated As levels were common in the ASR well and LFMW-1; the highest value recorded, 85.4 $\mu\text{g/L}$, was in LFMW-1 (Figure 16). LFMW-2 had one As exceedance during recovery of cycle test 2. Elevated Mo concentrations were observed during storage and recovery at the ASR and LFMW-1 (Figure 17). Arsenic and Mo show similar behavior in the three wells. While there is no MCL for Mo, there is an EPA health advisory value of 40 $\mu\text{g/L}$. The majority of the Orange County Mo samples were greater than 100 $\mu\text{g/L}$ and as high as 850 $\mu\text{g/L}$ (Figure 17).

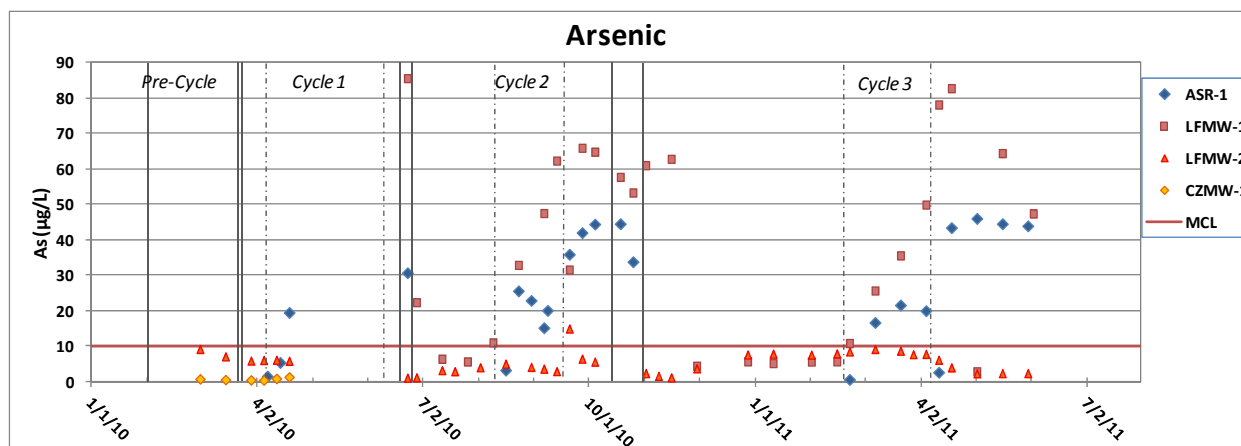


Figure 16. Arsenic concentrations, Orange County ASR.

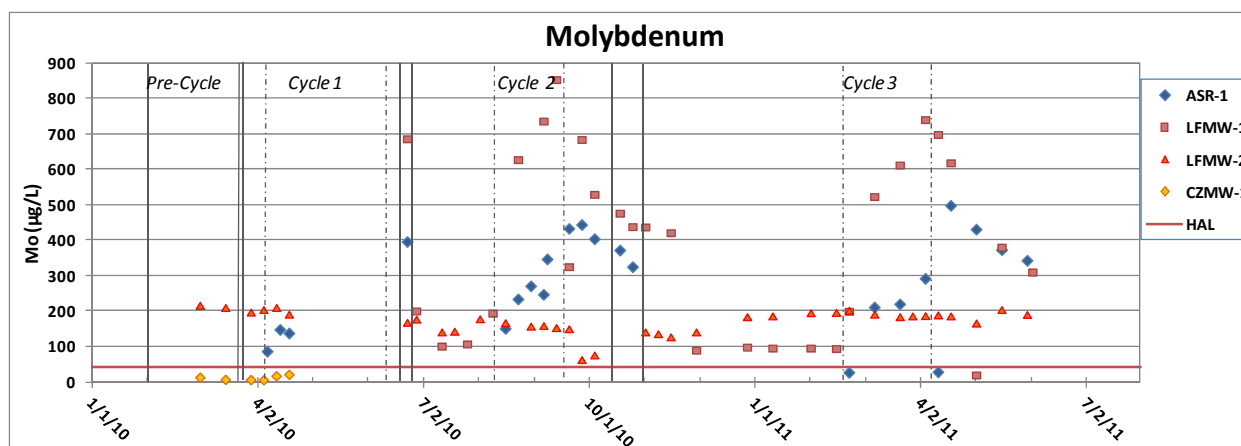


Figure 17. Molybdenum concentrations, Orange County ASR.

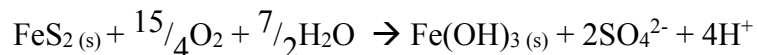
Close examination of the combined dataset (FGS and site data) reveals a predictable sequence of geochemical processes that occurred during storage (Figure 18, A-H). The sequence begins with oxidation of dissolved organic matter and pyrite, with consumption of oxygen (Figure 18, A and B), followed by manganese and iron reduction relatively early in the phase (Figure 18, C and D). Evidence for sulfate reduction is also observed during the middle of the phase, and preceding iron sulfide precipitation (Figure 18, E and F). Arsenic mobilization also occurred, but appears to be more closely associated with iron reduction, rather than pyrite oxidation (Figure 18, G and H). Arsenic may have co-precipitated with sulfides during cycle two, though it is not clear that this occurred during cycle three. Evidence for these processes is discussed in the following paragraphs, along with some interpretative limitations.

Prior to injection, dissolved oxygen levels in the injectate frequently exceeded 5 mg/L. Data collected by the facility suggest that the injected oxygen persisted in the subsurface long enough to reach the storage zone monitor well, where DO levels of 5 mg/L or greater were reported during injection. Subsequent monitoring of the ASR well during the storage phases shows that oxygen was consumed over time (Figures 18, A and B).

Aerobic respiration of dissolved organic matter present in the injectate probably accounted for some oxygen consumption. Organic carbon levels in the injectate were approximately 1.5 mg/L (Orange County Utilities, 2012). These levels increased slightly during storage, prior to decreasing later in the phase; however, the analytical precision is probably of the same order of magnitude as the observed changes (Figure 19, A and B). Also, these results are from unfiltered samples; hence, some of the changes in organic carbon may reflect bacterial growth. A clearer indication of organic carbon respiration was provided by total trihalomethanes (TTHM), disinfection by-products present in the treated injectate. Concentrations of TTHM began to decrease immediately, from levels as high as 110 µg/L at the beginning of storage, to <10 µg/L by the end of storage. Also, core descriptions from the storage zone indicate that organic carbon was present in the rock, though the extent to which this ancient carbon is metabolically available is not clear.

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Oxidation of pyrite (FeS_2) to HFO and sulfate is also indicated. The presence of pyrite in the storage zone rock matrix was previously confirmed by scanning electron microscopy and electron probe microanalyses (Arthur et al., 2008a). The overall reaction for pyrite oxidation is:



Reduced iron, Fe(II), is an intermediate species during pyrite oxidation, but it is rapidly oxidized to insoluble HFO in the presence of DO; therefore, increases in iron concentration may not be observed (Appelo, 2006). Thus, in carbonate aquifers, which are highly buffered against pH changes, the only observable changes to the bulk water chemistry that are expected as a result of pyrite oxidation are the loss of DO, which was observed, and the simultaneous production of sulfate, which was also observed (Figure 17, E and F). Sulfate concentrations, which were initially 4 mg/L, increased during the first 20 days of storage, reaching levels of 30 to 50 mg/L.

Although the increase in sulfate and loss of DO are consistent with pyrite oxidation, other processes could account for these observations. For example, it is possible that oxygen was in fact being consumed exclusively by the decomposition of organic carbon, and that sulfate was being produced by a process other than pyrite oxidation, for example, dissolution of gypsum (CaSO_4). Core descriptions of the storage zone rocks did not specifically note the presence of gypsum; however, the storage zone was within the Avon Park Formation, and depending on the depth and location, gypsum is frequently observed as an accessory mineral (Arthur et al., 2008b). If gypsum were present in the storage zone, thermodynamic considerations predict that gypsum would dissolve until equilibrium was obtained. Dissolution of gypsum releases both sulfate and calcium (Ca). Sulfate and Ca concentrations increased during storage (data not shown). However, bicarbonate concentrations also increased during this time, suggesting that the increasing Ca might be caused by dissolution of calcium carbonate, rather than gypsum dissolution. Figure 20 shows Ca plotted versus bicarbonate ion for the cycle 2 storage zone samples, and indicates a close relationship in which Ca increases one molar unit for every two unit increase in bicarbonate. This stoichiometry is indicative of calcium carbonate dissolution, which is also thermodynamically predicted for the undersaturated injectate. For this reason, we believe gypsum dissolution was negligible (otherwise the stoichiometric ratio would be lower than observed) and pyrite oxidation remains a likely source for the increased sulfate.

Chemical reduction of manganese (Mn) and iron (Fe) was also observed. The concentration of Mn in the injectate was below detection ($<1\text{ }\mu\text{g/L}$) but increased to as high as $130\text{ }\mu\text{g/L}$ after approximately seven days of storage (Figure 18, C and D). Concentrations of Fe, which were initially $<10\text{ }\mu\text{g/L}$, increased to around $1300\text{ }\mu\text{g/L}$; however, the increase in Fe did not coincide with the increase in Mn, occurring approximately seven days later. Both Fe and Mn are insoluble in oxic water, but both can serve as electron acceptors during anaerobic respiration, becoming reduced and more soluble. The early release of Mn relative to Fe is consistent with the higher energy yield obtained when Mn is used as an electron acceptor (Stumm and Morgan, 1996). Both Mn and Fe decreased after reaching their maximum concentrations. The Mn decrease may

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have been the result of sorption to clay minerals present in the matrix, while the decrease in Fe closely corresponds with the onset of sulfide production.

Sulfate is the next most energetically-favored electron acceptor, and anaerobic sulfate reduction is indicated both by a decrease in sulfate concentration and with a concomitant increase in sulfide (Figure 18, E and F). This occurs approximately 20-25 days into the storage phase, and indicates that the organic carbon present in the injectate was of sufficient quantity to drive these microbial processes to the extent observed. Sulfide levels reached 0.7 mg/L during cycle test two and over 2.5 mg/L during cycle test three. Sulfide later declined, possibly due to precipitation of iron sulfides and slower rates of sulfate reduction as organic carbon became scarce.

During storage, arsenic was also mobilized. Importantly, arsenic concentrations stayed low during the first week of storage; for this reason, it appears the release of arsenic was not the direct result of pyrite oxidation, which began almost immediately. Instead, during both cycle tests arsenic mobilization coincided with the onset of iron reduction (Figure 18, G and H). Maximum arsenic concentrations were 35 and 20 µg/L for the two cycle tests, respectively, and were reached after two weeks of storage. After reaching its maximum, the arsenic concentration decreased to about 20-25 µg/L during cycle test two. This decrease was coincident with a decrease in iron and an increase in sulfide, and suggests that arsenic was being co-precipitated with iron sulfide minerals. A similar decrease in arsenic was not observed during cycle test three, even though loss of iron and the presence of sulfide suggest that sulfide precipitation was occurring.

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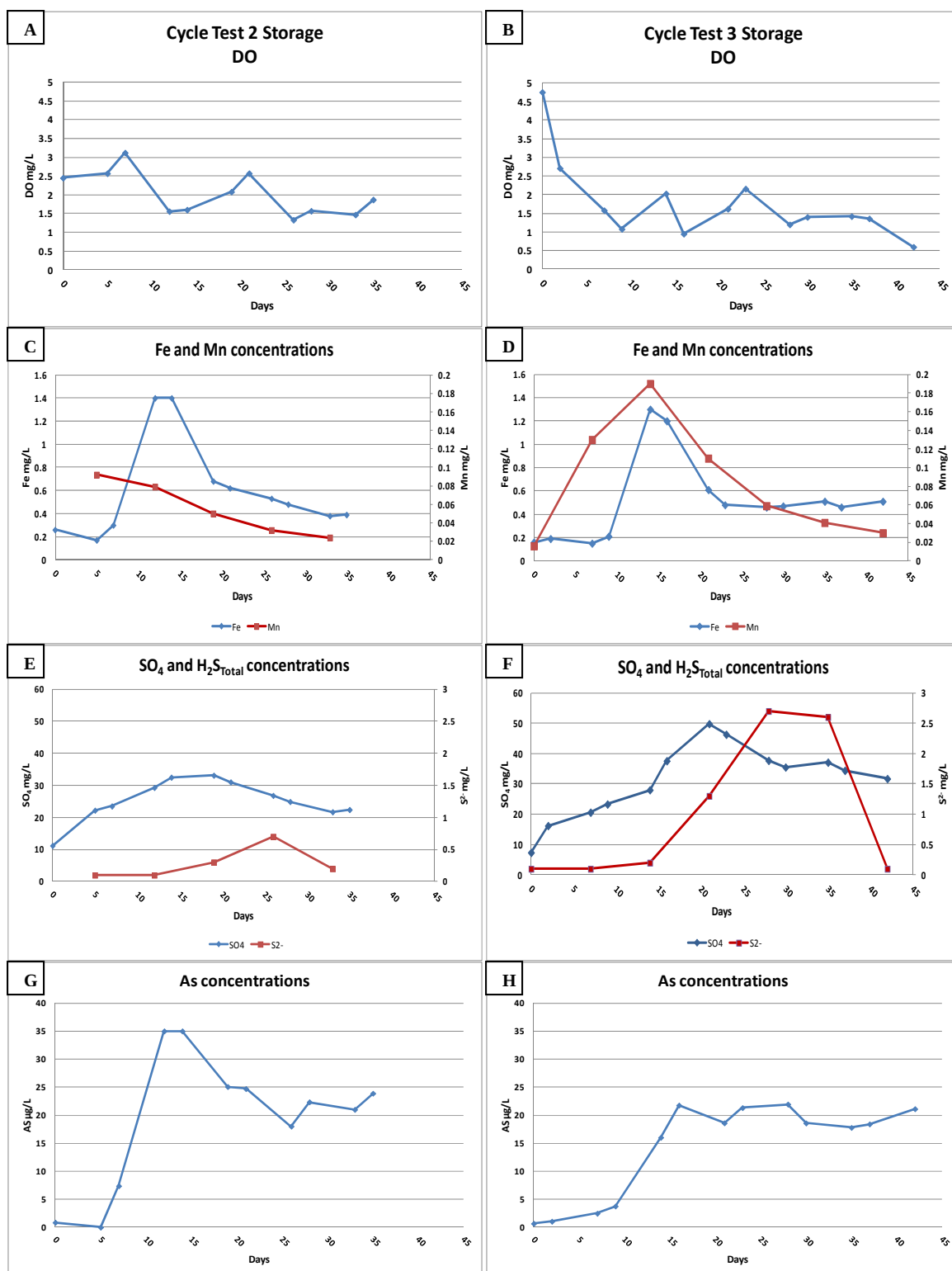


Figure 18. A-H Biogeochemical evolution of injectate throughout storage during two cycle tests.

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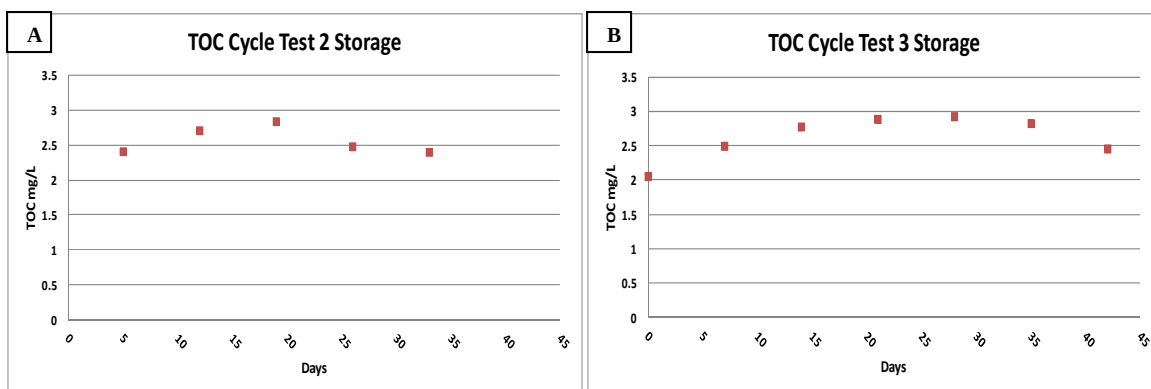


Figure 19. A-B TOC concentrations throughout storage during two cycle tests.

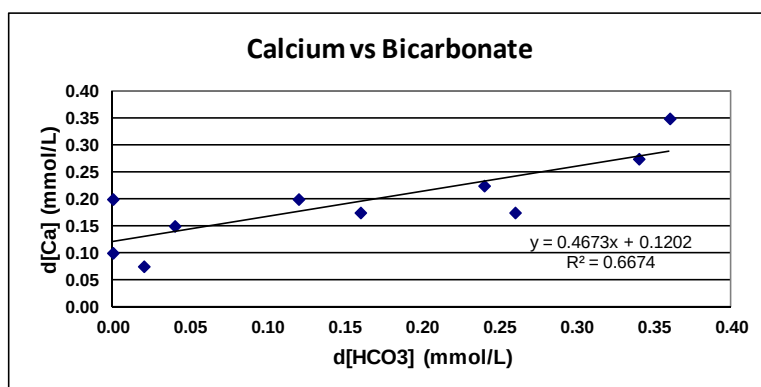


Figure 20. Calcium vs. bicarbonate.

Previous electron probe microanalyses of rock core samples from the storage zone have shown pyrite arsenic concentrations of 1000-2000 ppm (Arthur et al., 2008a). Taking the field observations presented here, together with a growing geochemical knowledge-base that implicates pyrite as an important reservoir for arsenic, the following scenario is proposed: Arsenic was a trace element in pyrite. Oxidation of pyrite to HFO may have released arsenic, but this arsenic should have been rapidly immobilized by sorption onto HFO surfaces (Appelo, 2006), some of which were likely newly formed. Arsenic release did not occur until the onset of HFO reduction, suggesting that pyrite oxidation alone was not sufficient to mobilize arsenic, and that the availability of organic carbon (which is necessary for microbial iron reduction) plays an important role. Finally, sulfide formation appears to have lowered the concentration of arsenic, at least for cycle test two.

The redox sequence described above has been observed in a variety of environmental contexts and is well described in geochemical texts (Stumm and Morgan, 1996). However, the sequence at the Orange County ASR site shows an obvious incongruity: most of the anaerobic

processes appear to be occurring in the presence of oxygen (Figure 18). Because the sequence is so readily apparent, our initial impulse was to distrust the validity of the DO measurements. Indeed, accurate measurement of low DO in an oxic world requires specialized skills and experience. The apparent stabilization at ~1.5 mg/L in both cycle tests even after 35 days of storage suggests that this level might in fact represent the practical detection threshold. This would be about three-fold higher than the nominal detection limit for most probes based on clark-cell technology, but without careful probe maintenance and calibration, the higher level may be more realistic. However, support for the DO measurements is provided by the sulfate graphs, which show that sulfate continues to increase long after the onset of Mn and Fe reductive processes. If this increase is indeed due to pyrite oxidation, and we believe it is, then an oxidant (presumably oxygen) must have been present.

To account for the conflicting signals, we propose that two end-member redox environments were present in the storage zone, one which remained primarily oxic, and one in which oxygen rapidly became limiting. The injection of recharge water likely exposed the entire storage zone to the same initial oxygen concentration, yet disparate redox environments may have resulted from natural features of the rock formation that inhibited oxygen transport during storage. Core descriptions indicate the ubiquitous presence of vuggy zones of high porosity, as well as less permeable organic/clay layers that would inhibit transport of oxygen (which under strictly diffusive conditions will be exceedingly slow). Alternatively it is possible and even likely that organic carbon was unevenly distributed throughout the storage zone. Core descriptions suggest this is true for the ancient carbon naturally present in the rock formation (Arthur et al., 2008a); but we assume this carbon reservoir may be biochemically less reactive. It is also possible that organic carbon in the injectate became concentrated in preferred zones. Although the initial concentration of carbon in the injectate was only 1-2 mg/L, hundreds of millions of gallons of water were pumped through the storage zone. Organic carbon has variable sorptive affinities in carbonate settings (Jin and Zimmerman, 2010); therefore it is likely that heterogeneities in its distribution will arise, and that overall its total concentration will be increased. Thus, even the small concentration of organic carbon in the injectate was probably sufficient to drive the observed geochemical sequence, particularly in the immediate vicinity of the ASR well, where the bulk of the organic carbon might logically be sequestered. Rapid loss of oxygen is expected in zones of high carbon absorption (also in zones of high pyrite concentration) while slower oxygen loss would occur in low sorption (or non-pyritic) zones. Thus, both oxidizing and reducing environments could and should co-exist within the overall storage zone. If so, then by virtue of its long open-hole interval, samples from the ASR well can be expected to have chemical compositions that indicate a mix of redox environments (McMahon and Chapelle, 2008). The fact that these samples provided such geochemical signatures is further evidence for the generating processes described above.

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Sanford

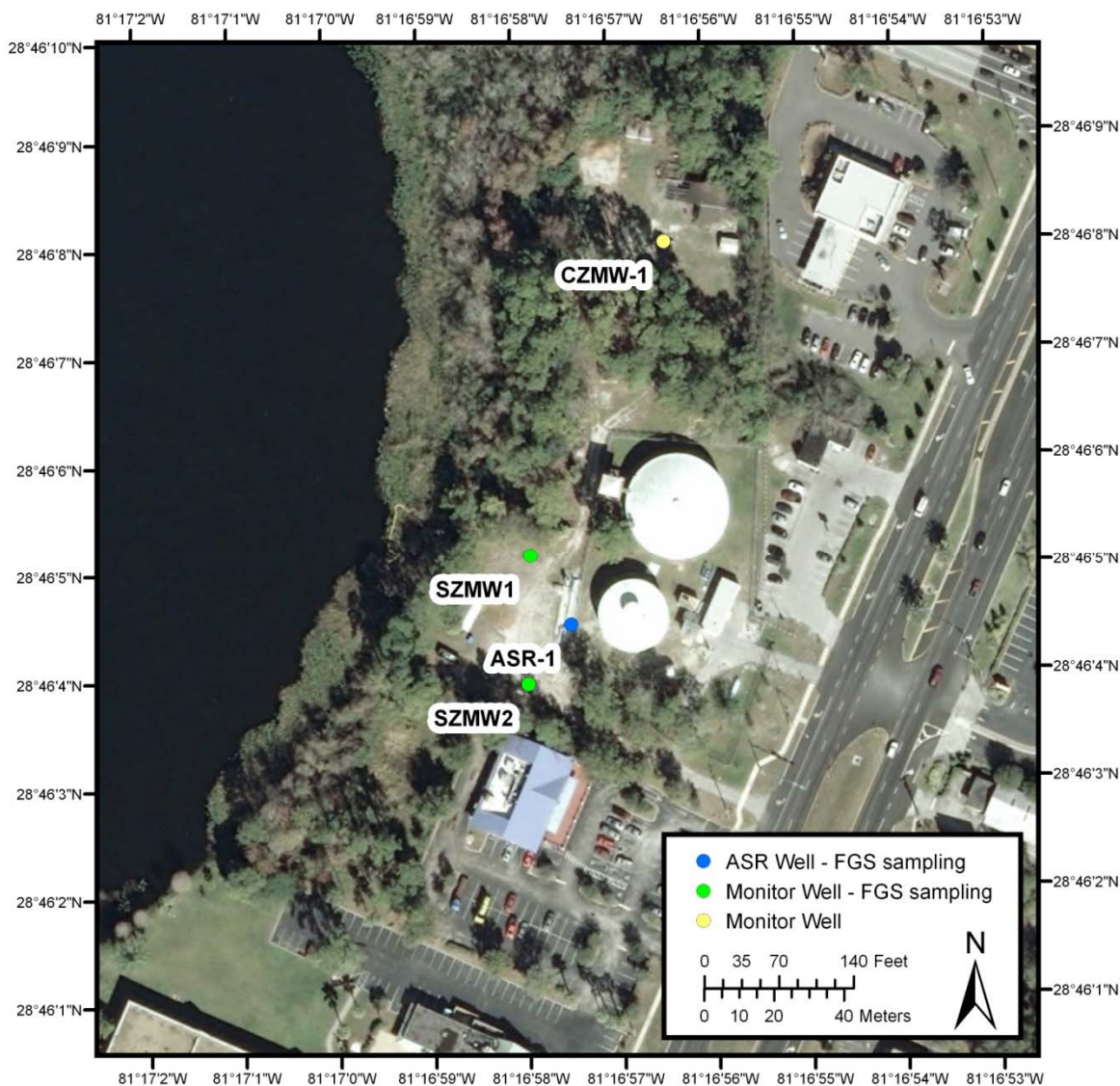


Figure 21. Sanford site.

Monitoring at the Sanford site included the ASR well and two SZMW's (Figure 21, Table 3). For additional information on the wells see Table 3. This site started with dechlorination in early cycle tests with later cycles to include degasification. In early cycle testing (cycle tests 1 and 2), potable water was injected after removal of free chlorine by addition of sodium bisulfite (Camp Dresser & McKee Inc., 2011). The amount of sodium bisulfite (NaHSO_3) added is not clear in the site operating report summary; however, monitoring of residual chlorine in the injectate indicated that the amount was either sufficient or in excess of the amount required to reduce all the free chlorine. The amount of NaHSO_3 added is important, because NaHSO_3 is a reducing agent and can therefore affect the subsurface redox environment. It is expected that excess NaHSO_3 , if present, would react with DO also present in the injectate to produce sulfate ions – even at ten

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percent saturation, DO concentrations would be sufficient to consume residual NaHSO_3 . Therefore, it is expected that DO would remain in the injectate at quantities sufficient to initiate subsurface oxidation reactions.

During these early cycle tests, As was released during storage and was detected in the ASR well at levels of 14-39 ppb (cycle 1, Sanford site data) and at 18-28 ppb (cycle 2, Sanford site data); (Camp Dresser & McKee Inc., 2010). Consequently, the site operators altered the pretreatment strategy for subsequent cycles to include a degasification system (Liqui-Cel[®] Contactors). The exact reasons for this modification were not stated in the operating reports; presumably it was assumed that the release of arsenic was due to oxidation of arsenian pyrite by molecular oxygen present in the injectate, and that removal of oxygen prior to injection would eliminate or mitigate the release of As. Operational difficulties arising with the degas system were alternately attributed to overdosing the system with NaHSO_3 or fouling induced by organic matter present in the injectate. Therefore, the operators discontinued the addition of NaHSO_3 for chlorine removal and instituted cleaning routines to prevent fouling by organic matter of the contactor membranes of the degas system. One or both of these changes may have been responsible for lower arsenic levels observed during cycle test 3 and cycle test 4 (Figure 22).

Additional testing by the FGS (See Appendix 2) and UIC program showed that other metals were released during cycle tests 3 and 4. Both Fe and Mo were observed to increase at the ASR well during storage for both cycles, though concentrations decreased as recovery proceeded (Figures 23 and 24). And like Bradenton, Fe levels were elevated above previous observed levels and Mo, while released, was below previous levels observed during cycle testing. This adds further evidence that degasification may be responsible for the reduction of trace metal releases including arsenic. These releases were observed at the ASR well, with smaller releases at the storage zone monitor wells. Chloride (Cl) concentrations in the injectate were not stated in the site operating reports; however, initial concentrations at the ASR well during the recharge and storage phases were low (~50 mg/L). Chloride concentrations at SZMW-1 were initially ~300 mg/L, approximately that of the native groundwater, and although concentrations decreased substantially during injection, they were consistently greater than 100 mg/L. This suggests that samples collected from this well represented a mix of native and recharged water.

Identification of the specific processes responsible for the geochemical evolution of the injectate at this site is hindered by the availability and quality of data. Key information such as the water quality of the injectate (before and after treatment) is either missing or otherwise obscure. It is difficult to evaluate water quality changes when initial conditions are not precisely known or otherwise available; therefore we recommend monitoring plans specified by future permits at this and other ASR sites be carefully formulated to ensure the necessary information is obtained.

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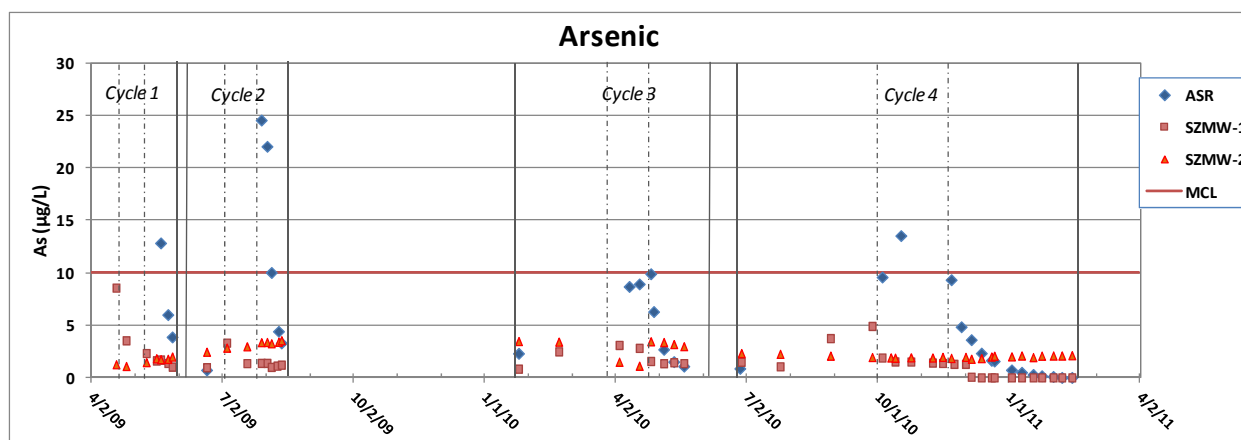


Figure 22. Arsenic concentrations, Sanford ASR.

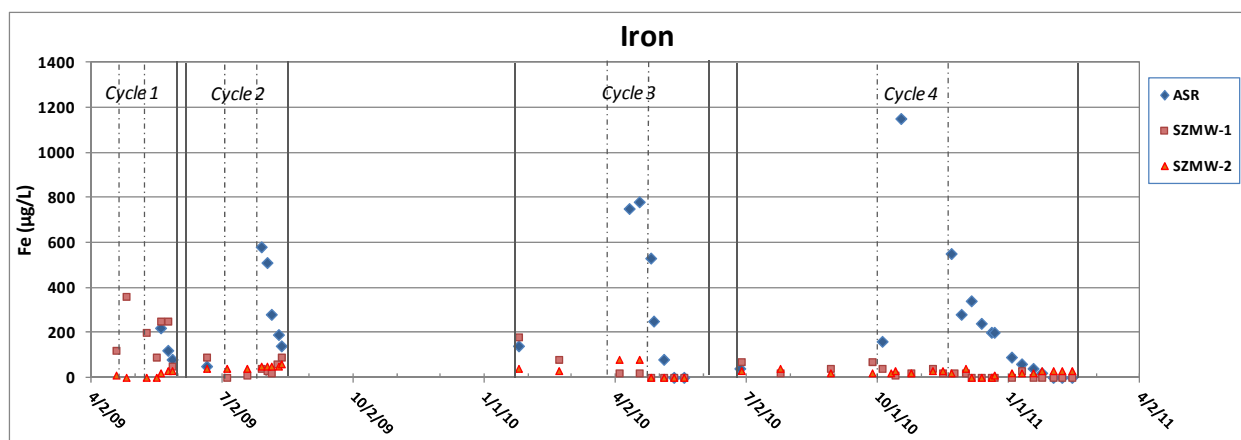


Figure 23. Iron concentrations, Sanford ASR.

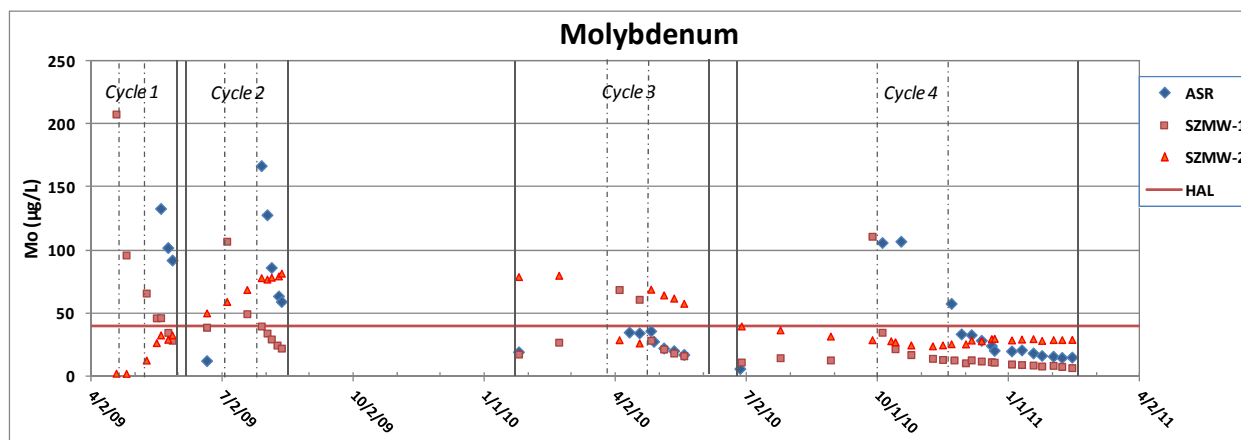


Figure 24. Molybdenum concentration, Sanford ASR.

The quality of data is also a matter of concern. For example, the arsenic analyses provided by the facility had an unusually high method detection limit (MDL) of 2.6 µg/L. Because values

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close to the detection limit contain numerical uncertainty, the practical quantitation limit (PQL), or the lowest value that can be quantified with some degree of confidence (usually the 95% level), is also of interest. The PQL has been operationally defined as being equal to 4 times the MDL (Florida Department of Environmental Protection, 2006). If this rule of thumb is applied to the Sanford dataset, the PQL for arsenic would be 10.4 $\mu\text{g/L}$, which is greater than its maximum contaminant level. Given that arsenic is perhaps the central concern of these studies, other methods with lower detection limits (e.g. ICP-MS) should be employed.

Dissolved oxygen measurements also appear to be of limited quality, not only at Sanford but at other ASR sites. For the Sanford site, much effort was applied to control oxygen levels, because oxygen is implicated in pyrite dissolution, which is believed to release arsenic and other trace metals. Yet the reported DO levels seem unusually high for water treated with degas technology, and are inconsistent with other geochemical observations that imply an absence of DO, including high Fe, low ORP, and detectable sulfide. For example, DO concentrations (Figure 25) at the ASR and monitor wells are relatively high (often $> 0.6 \text{ mg/L}$) during all cycles and are highly variable, such that it is difficult to observe the effects of the degas pretreatment, and it is similarly difficult to assess the relative potential for pyrite oxidation.

Given these caveats, it seems likely that reduction of HFO is occurring in the vicinity of the ASR well. Figure 26 shows a plot of iron versus arsenic for the ASR well (cycles 2-4) during all phases of operation, and good correlation is observed. The simultaneous release of arsenic and iron observed in Figures 22 and 23 is highly suggestive of reductive dissolution of iron. Although pyrite oxidation can also release iron and arsenic, poor correspondence has been observed because iron readily forms insoluble oxyhydroxide precipitates (Appelo, 2006). Depending on the chemical conditions, these precipitates often sequester arsenic and other metals, leaving little trace of pyrite dissolution other than increased sulfate concentrations (which were not observed at the Sanford site). In contrast, reductive dissolution of HFO by anaerobic microbes will mobilize iron and other sorbed metals and high Fe concentrations will prevail until conditions become much more reducing. This mechanism requires organic carbon and anoxic conditions (Appelo, 2006). Unfortunately, the degree to which these preconditions are met at Sanford is not well known. The DO analytical problem has already been discussed, and it does not appear that the character or the concentration of the organic carbon present in the injectate was assessed. However, anecdotal evidence presented in the site operating report suggests that organic matter was present in the injectate, in quantities sufficient to cause fouling of the degas system; therefore, it can be assumed that some organic matter was introduced into the subsurface. Because of its potential to drive a number of geochemical reactions, we recommend organic carbon be quantified at all ASR sites. Interestingly, because injected water in previous cycle tests contained high DO, it is possible that the HFOs being reductively dissolved during later cycle tests were produced during earlier cycle tests by the oxidative dissolution of pyrite. If so, the release of iron and other trace metals may eventually cease once a consistent geochemical environment has been established.

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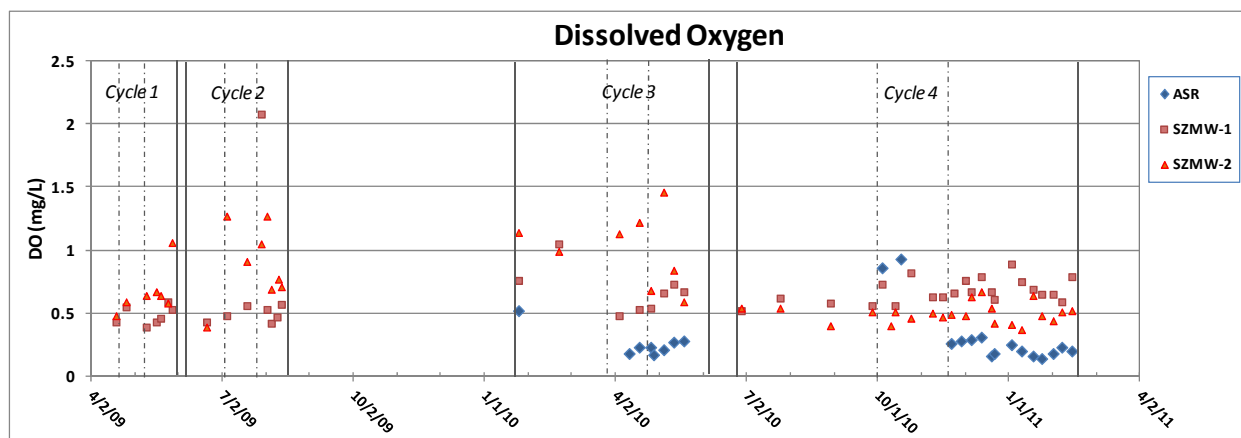


Figure 25. Dissolved oxygen, Sanford ASR.

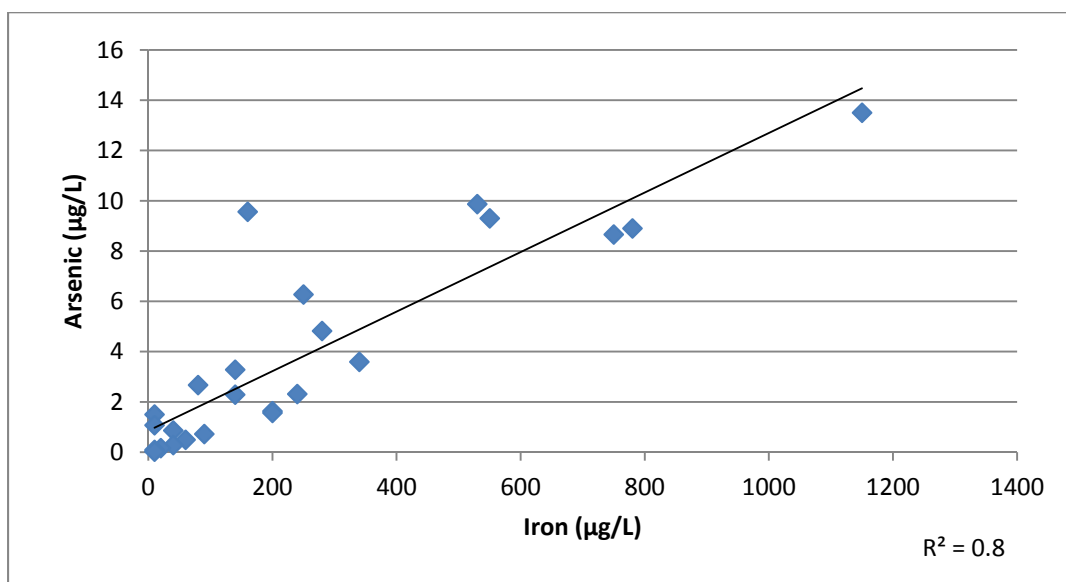


Figure 26. Iron verses arsenic for cycle tests 2-4, Sanford ASR.

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Seminole-Markham

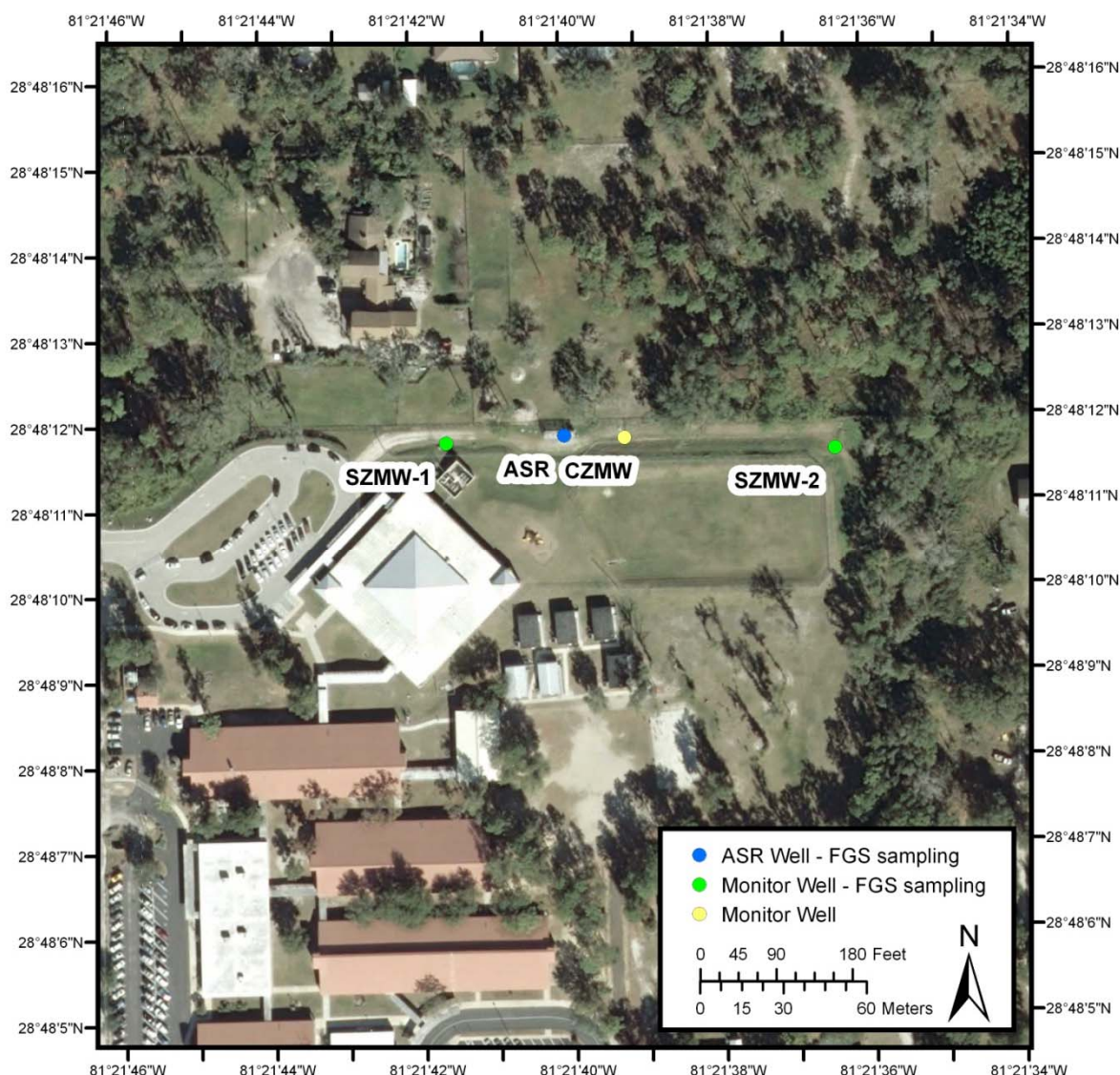


Figure 27. Seminole-Markham site.

The Seminole-Markham site (Figure 27) consists of one ASR well, two SZMW's and one confining zone monitor well (CZMW); for more detailed information about these wells see Table 3. The injectate for this site was potable water from the Markham Water Treatment Plant treated with sodium bisulfite for dechlorination in conjunction with Liqui-Cel® Degas. Cycle tests 1 and 2 were conducted using partial treatment; cycle test 1 consisted of degasification only, while cycle test 2 used only dechlorination. There was an extended storage period between the two cycle tests due to elevated arsenic at both the ASR and SZMW-1 (Figure 28) as these levels exceeded the limit for discharging recovered water to the dry stormwater ponds.

The site operators provided few samples throughout the cycle testing and no ASR well samples were received during cycle test 2. This made interpretation difficult as the composition of

the injectate water for cycle test 2 was not known and the samples received were too few in number. Since the injectate was treated potable water from the water treatment plant, it is assumed for interpretation purposes, the injectate sample from the ASR well on March 2, 2010 (cycle test 1) was similar to that of the injectate water used for cycle test 2, with the possible exception of DO since there was no degasification of the injectate water during cycle test 2.

Cycle test 1 water quality results at the start of recovery indicated the injectate had moved away from the ASR well; the well appeared to have returned to pre-injection conditions as evidenced by conductivity, sodium and chloride (Poole, 2010). To address this concern, the ASR well and the storage zone monitor wells were backplugged to reduce the high transmissivity of the well and maintain the injectate in the vicinity of the ASR well (Poole, 2010). The original storage zone was 940-1070 ft bls; with backplugging, the new storage zone is 940-992 ft bls.

There were noticeable differences in the pH between cycle test 1 and 2. For example, cycle test 1 pH values for both SZMW's were around 8.5, cycle test 2 pH values for SZMW-1 were greater than 11.0 and SZMW-2 were greater than 9 (Figure 29). It is suspected these high values are related to the interaction of the formation water with the grout used in backplugging. The timeframe between backplugging and the start of cycle test 2 is not known, but possibly the grout did not cure as planned. If the backplugging has impacted the pH and other parameters, the well may no longer be useful for monitoring the aquifer conditions, as these pH changes will have an influence on the behavior of the metals near the well and will not necessarily reflect aquifer conditions.

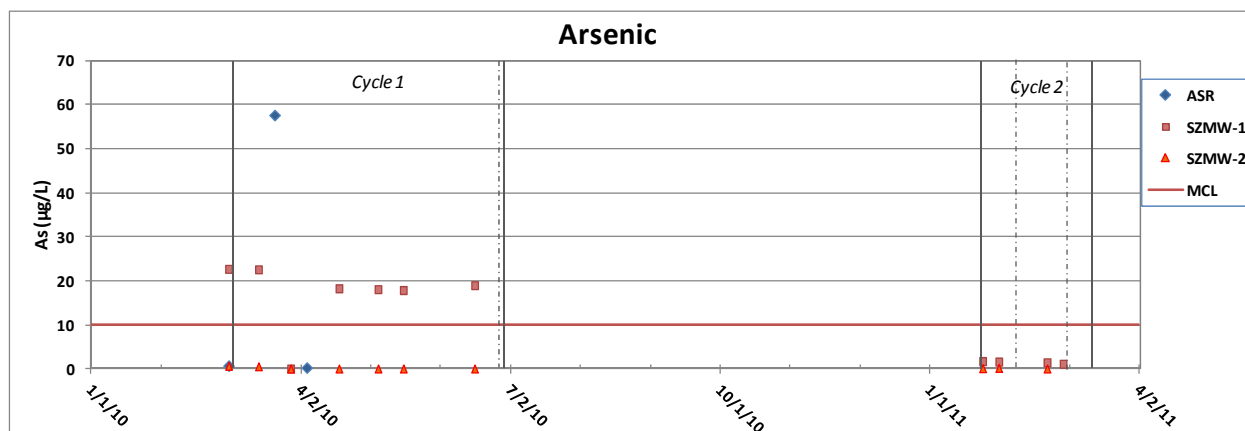
Also notable were changes in specific conductance, aluminum and magnesium between the two cycle tests (Poole, 2011). Specific conductance during cycle test 1 at both SZMW's was between 2,000-2,200 microsiemens per centimeter ($\mu\text{S}/\text{cm}$), while values during cycle test 2 were less than 1,500 $\mu\text{S}/\text{cm}$ for SZMW-1 and around 1,000 $\mu\text{S}/\text{cm}$ SZMW-2 (Figure 30), indicating the injectate had reached both SZMW's. Changes in aluminum and magnesium may also support this observation. Aluminum went from about 20 $\mu\text{g}/\text{L}$ at both SZMW's to about 450 $\mu\text{g}/\text{L}$ at SZMW-1, while SZMW-2 remained low (Figure 31). Aluminum can be used in the water treatment process with these results indicating the injectate had reached SZMW-1. Magnesium decreased from about 40,000 $\mu\text{g}/\text{L}$ at both SZMW's during cycle 1 to about 90 $\mu\text{g}/\text{L}$ in SZMW-1 and 9,000 $\mu\text{g}/\text{L}$ in SZMW-2 (Figure 32). Based on these results the backplugging was successful in reducing the high transmissivity of the wells and maintaining the injectate within the storage zone. No arsenic exceedances were observed in either SZMW during cycle test 2 but data from the site MOR's showed exceedances in the ASR well (Poole, 2011).

While this study did not include samples from the CZMW, data for this well is available in the site MORs (Poole, 2011). Upon examination of the data for the CZMW it appeared the well has been impacted by the cycle testing. There are fluctuations in pH and specific conductance between the two cycle tests. Cycle test 2 pH increased to about 9.4 during storage, and specific conductance decreased from a range of 2,000-2,200 during cycle test 1 to ~1,100-1,800 during cycle test 2. The DO and ORP values are higher during cycle test 2 injection than during storage and recovery. Iron was higher during recovery of cycle test 2 than at any other time. Collectively

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this indicates a leaky confining zone allowing communication with the injectate water - which in turn can cause metals mobilization to occur above the intended ASR storage zone.

Elevated manganese and sodium were on occasion observed in the SZMWs. Molybdenum often exceeded the HAL of 40 µg/L in the SZMWs. While bromine is not regulated, it was included because of its potential to form bromate (BrO_3^-) during certain water treatment processes (Amy et al., 1997). Bromate is regulated by EPA as a potential carcinogen, with a MCL of 10 µg/L. *Bromine*, however, was observed at this site with levels of 971-2,250 µg/L and should warrant further study to determine if bromate is being formed.



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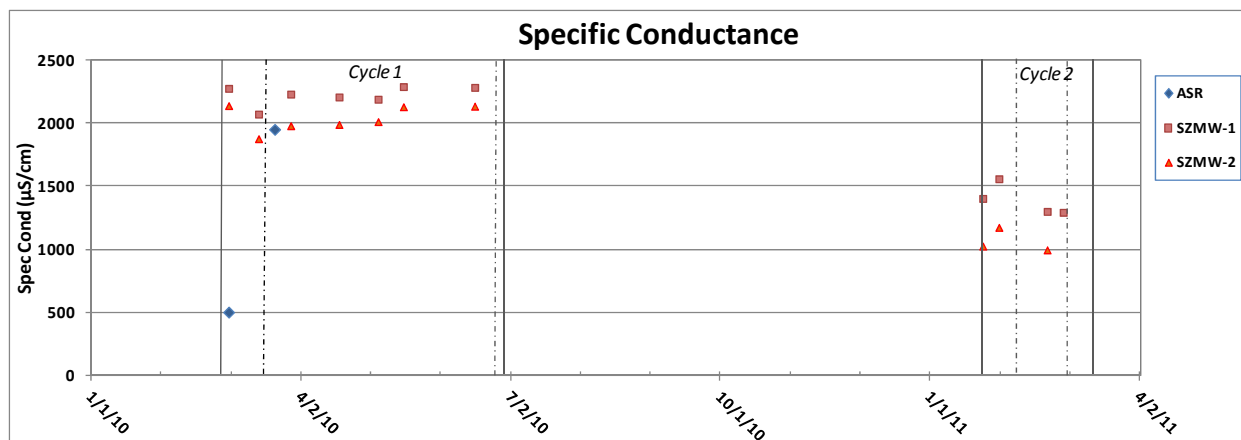


Figure 30. Specific conductance, Seminole-Markham ASR.

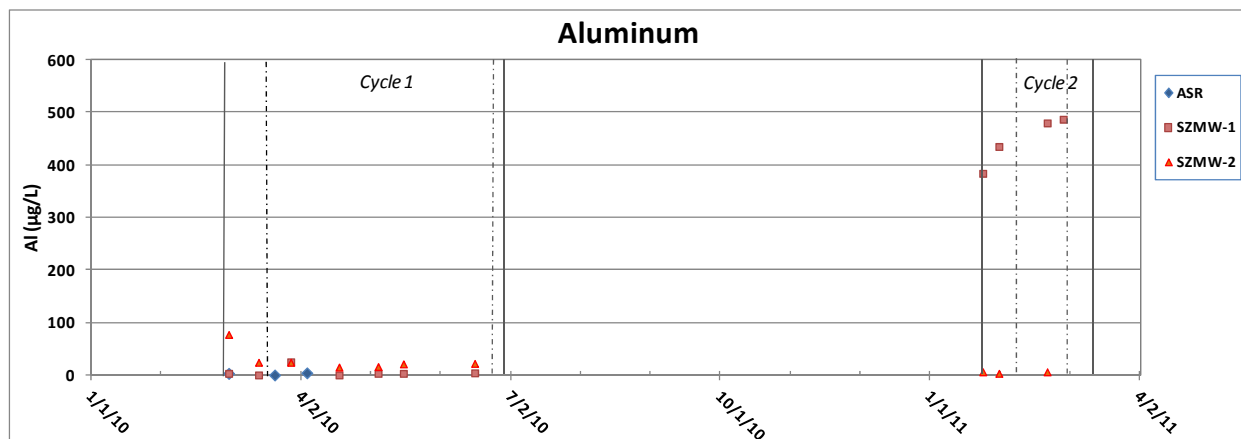


Figure 31. Aluminum concentrations, Seminole-Markham ASR.

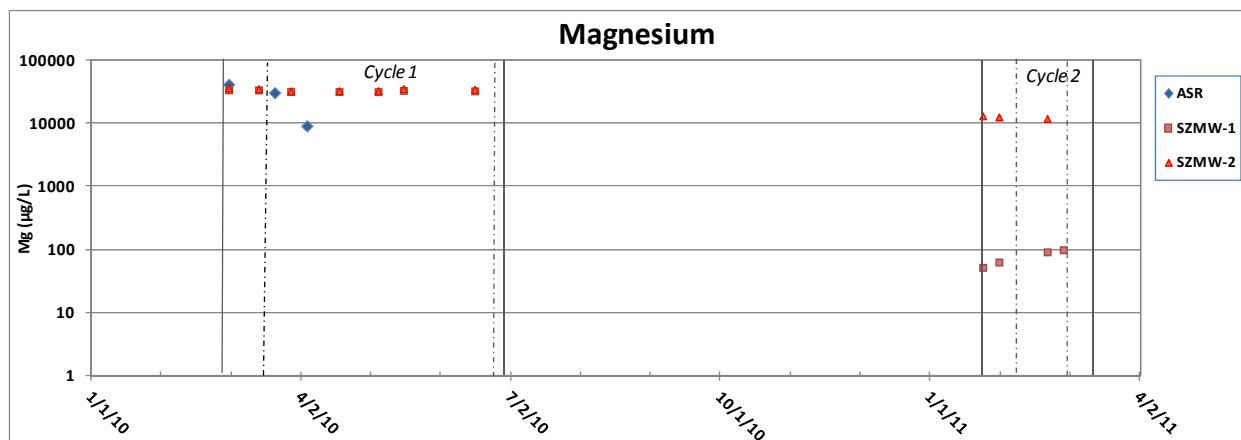


Figure 32. Magnesium concentrations, Seminole-Markham ASR.

RECOMMENDATIONS

The additional testing made possible by this grant enables FDEP to monitor potentially adverse changes in water quality as well as gain a better understanding of the reactions between the rock, native water and the different injectates, formations and aquifers. A better understanding of these processes allows for development of operational techniques designed to mitigate adverse water-quality changes that may occur during ASR. The FGS datasets combined with the datasets from the individual sites will enhance this understanding as well. It is difficult if not impossible to evaluate water quality changes when initial conditions are not precisely known. We recommend when writing future permits that the following parameters be included to ensure the necessary information is obtained. In order to fully understand these reactions, it is highly recommended that each site analysis include at a minimum: DO, NO₃, Mn, Fe(II), TOC, SO₄ and sulfide in addition to the usual field parameters. Understanding the site is also dependent on knowing how the site is operating, (i.e. properties of the injectate, prior treatment of the water, start and stop of various phases, etc.) Inclusion of the FGS on documentation of changes in permit operation would be very helpful in interpreting the data and updating the database.

Regulatory policy and site utilities may benefit by taking a proactive approach to the Cr issue presently under consideration by EPA. To date our Cr analyses are presented as total Cr, and do not distinguish between Cr(III) and Cr(VI); however, Cr(VI) is a suspected carcinogen while Cr(III) is a micronutrient (U.S. Environmental Protection Agency, 2012). These two forms of chromium (Cr(III) and Cr(IV)) can convert back and forth depending on the chemical environment. The relationship between Cr(III) and Cr(VI) is strongly dependent on pH and oxidative properties, which are variable during ASR. The EPA, 2010 states: *“In order to ensure that the greatest potential risk is addressed, EPA’s regulation assumes that a measurement of total chromium is 100 percent chromium-6, the more toxic form.”*

A similar situation exists with bromine (Br), which is reported herein as total Br and is comprised of bromide and bromate. Bromide containing waters using ozonation for disinfection will form bromate if excess ozone is present. The MCL for bromate is 10 µg/L and it is a suspected carcinogen. While our total Br results are as high as 5,990 µg/L, reflecting a salinity signature, none of the sites in this study have been tested for bromate. For this reason preliminary testing for bromate is recommended to determine if the high total Br is in part bromate, especially at sites utilizing ozonation for disinfection.

Reclaimed/reuse water for ASR and/or aquifer recharge (AR) is becoming more common in Florida. Injectate waters for reclaimed/reuse are quite different chemically, microbiologically and physically from the potable systems. Reclaimed water as the injectate tends to have measurable, if not significant, levels of TOC, nitrate, ammonia, phosphate and disinfection by-products, which induce chemical reactions that result in metals mobilization. Another consideration when using reclaimed/reuse water are “contaminants of emerging concern” which are contaminants not previously detected or are being detected at levels significantly different than would be expected using potable systems; these contaminants which are synthetic or naturally occurring can include metals, pesticides, herbicides, microbes (bacteria and viruses), endocrine

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disruptors, pharmaceuticals and personal care products (EPA, 2014). It is important to consider whether or not there is attenuation of these contaminants once injected into the aquifer. A new area of increasing concern with reclaimed/reuse water are the transformation products from the emerging contaminants, and their effects on the system, metals mobilization, and the aquifer (Clinton, 2007; Nikolaou and Lofrano, 2012).

The database developed for this project will facilitate data interpretation of geochemical processes that may be occurring during ASR and AR operations. The database will allow the FGS datasets to link with the individual sites data. This linking proved more challenging than expected because individual site permit data provided by the ASR facilities are of variable content (Table 4) and format (including PDF, spreadsheet, CD and hardcopy). As such, they required extensive manual manipulation prior to linking with the FGS dataset. While the regulatory agencies are to be commended for their efforts to consolidate the site data and the FGS data, manual data entry is time-consuming and error-prone. Computerized data transmittal is encouraged for future ASR permits. It is also recommended that the format used by the individual sites be standardized and that a web-based reporting system be developed in the future, along with the digitization of all permits and reports.

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Table 4. ASR sites and parameters currently being analyzed.

[illegible]

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Appendix 1.
Florida ASR Database Manual

FLORIDA ASR DATABASE

The FGS ASR Database was created in response to the need to better manage site and water quality data. Over the course of 20 years, numerous spreadsheets were created for site evaluation. With an increase in the number of ASR sites in recent years, it became apparent that tracking multiple forms of data from multiple sites would require a data management system. Consequently, the FGS developed a Microsoft Access® database with query capabilities as well as the ability to store all of the data and to facilitate data retrievals and data evaluation. This database has been instrumental in allowing access to numerous data from the ASR sites for interpretation.

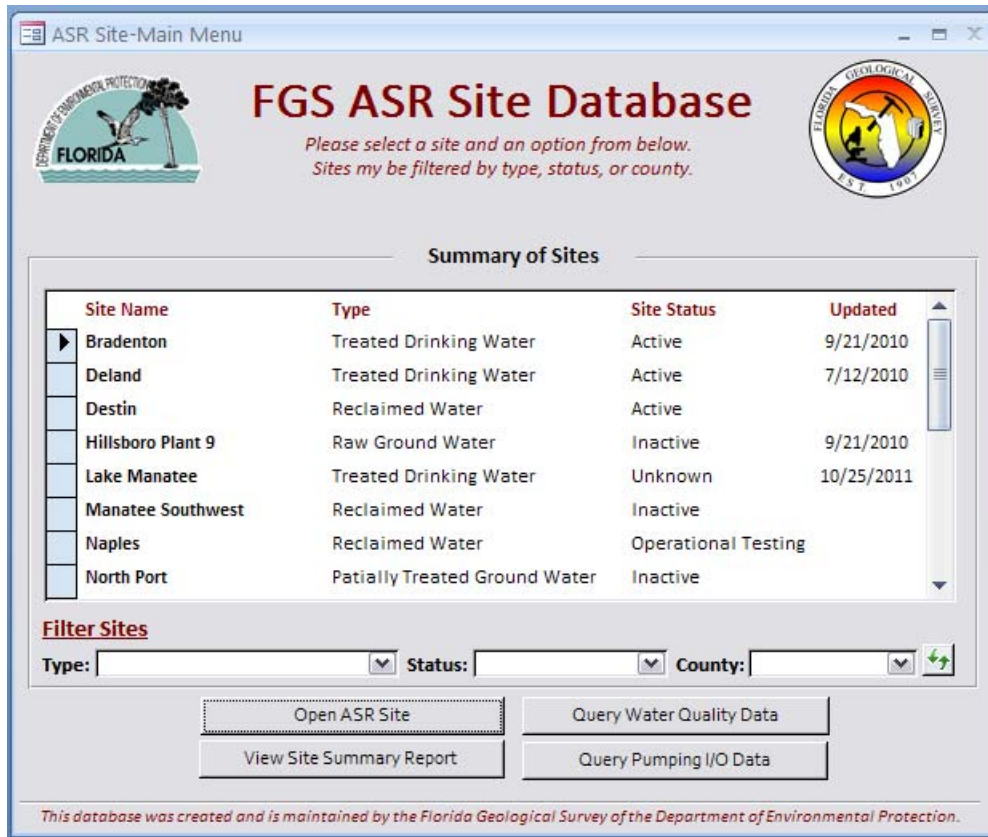
Introduction

The database enables querying of individual site data simultaneously with the FGS data, allowing full use of all available data for facility assessment and quality assurance purposes. In addition, the database stores details regarding the operational history of each facility, including details on pumping rates, injection and storage duration, recovery volumes, and water pretreatment strategies, which are relevant to evaluating the effects of ASR practices on groundwater quality. Population of the database continues and at the time of this report it contained information on the thirteen ASR sites, which collectively comprise 58 wells. The database is regularly updated for the current sites as well as sites that are of interest for future projects and includes sites previously monitored but no longer operational. The database has been developed to not only store information about individual sites (wells, permits, and contacts) but to also store and query sample results. A description of the database functions and capabilities is provided below.

User Interface

The database has two user interfaces to facilitate data entry, queries, and reports. The primary FGS Data Entry front-end gives full capabilities to FGS for data entry, database queries, and reporting. The Query front-end facilitates database queries and reports. A user's guide for this front-end can be provided by FGS. Figure 1 shows a screenshot of the main menu.

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Site Name	Type	Site Status	Updated
Bradenton	Treated Drinking Water	Active	9/21/2010
Deland	Treated Drinking Water	Active	7/12/2010
Destin	Reclaimed Water	Active	
Hillsboro Plant 9	Raw Ground Water	Inactive	9/21/2010
Lake Manatee	Treated Drinking Water	Unknown	10/25/2011
Manatee Southwest	Reclaimed Water	Inactive	
Naples	Reclaimed Water	Operational Testing	
North Port	Patially Treated Ground Water	Inactive	

Figure 1. Query front-end main menu

Data Management

Information pertinent to an individual site can be entered through the Data Entry front-end. This information includes the type of site, water treatment information, and the site's permitting status. In addition, information about wells, cycle pumping information, permits, and contacts can be entered.

Aside from tracking individual site operations, the database's primary function for the FGS is to manage sample inventory and laboratory results. Through a series of forms, samples are logged in, batches are picked for lab testing, and results are imported. When available, additional data from individual site Monthly Operating Reports (MORs) are added to the database. Figure 2 shows the Batch Detail form, which is a data entry form used for batch selection.

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The screenshot shows a 'Batch Detail' window with the following sections:

- Batch ID:** 46
- Date Sent to Lab:** [Empty field]
- Date Results Rec:** [Empty field]
- Lab Files:** [Empty field]
- Comments:** [Empty text area]
- Sites Included:** Punta Gorda (41); Rome Avenue (34); Tampa-Tippin (ASR-B) (9)
- Number of Sites:** 3
- Number of Samples:** 84
- Buttons:** Update, Cancel, Exit and Save, View Long Report, View Short Report
- Samples Ready Table:**

ASR Site	Well	Date	Sample Lab ID
Bradenton	ASR	11/3/2009	
Bradenton	ASR	11/10/2009	
Bradenton	ASR	11/17/2009	
Bradenton	ASR	11/24/2009	
Bradenton	ASR	12/2/2009	
Bradenton	ASR	12/9/2009	
- Picks Table:**

ASR Site	Well	Date	Sample Lab ID
Punta Gorda	ASR	9/1/2010	CH01-IW-003
Punta Gorda	ASR	11/3/2010	CH01-IW-004
Punta Gorda	ASR (EP)	12/22/2010	CH01-IW-005
Punta Gorda	ASR (EP)	1/6/2011	CH01-IW-006
Punta Gorda	ASR-3	7/28/2010	CH01-A3-003
Punta Gorda	ASR-3	8/4/2010	CH01-A3-004
Punta Gorda	ASR-3	5/24/2011	CH01-A3-005
Punta Gorda	ASR-3	6/8/2011	CH01-A3-006
Punta Gorda	ASR-4R	7/28/2010	CH01-A4-006
Punta Gorda	ASR-4R	8/4/2010	CH01-A4-007

Figure 2. Sample batch detail form.

Main Tables

Included in the back-end of the database are several tables which are used to store the information about each ASR site in the database. The database consists of 12 key tables plus a group of individual site tables, all of which can be categorized into four primary data sets: site information, correspondence, pumping data, and sampling data. This section goes through each of these categories and discusses the tables and forms involved along with a brief summary of each one's purpose. Figure 3 shows a relationship diagram of these tables. Many of the tables and forms listed are only accessible through the FGS Data Entry front-end; however, they are noted here for the purpose of documenting the work completed for the current report.

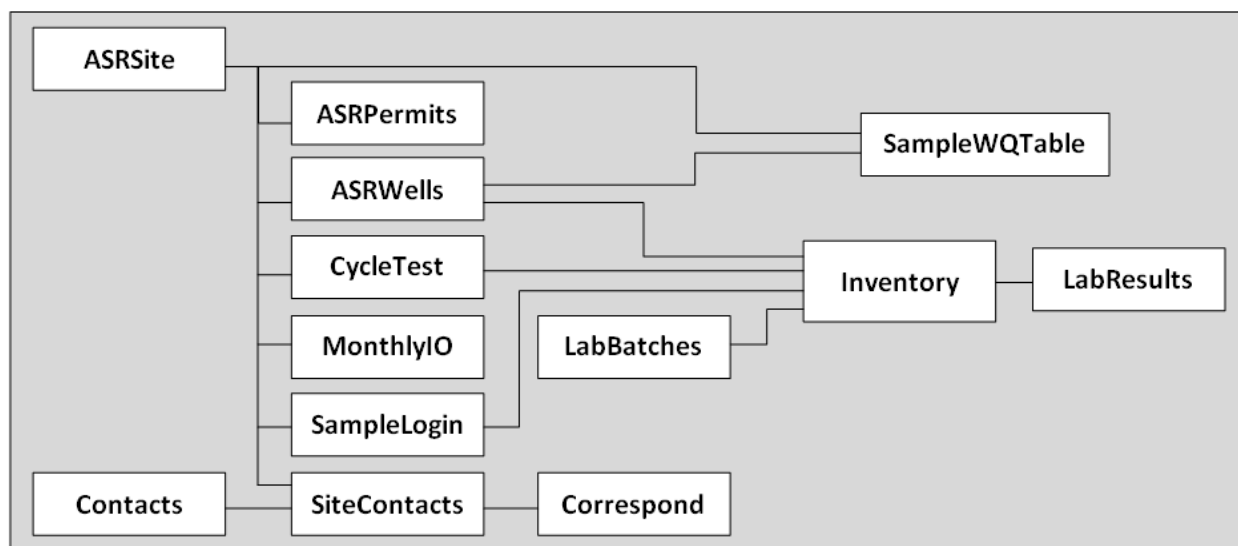


Figure 3. ASR data model.

Site Information

There are three key tables that store general site information: *ASRSite*, *ASRPermits*, and *ASRWells*. The *ASRSite* table stores information about each site including the county, owner, water treatment (plant name and method), type, and status. It also stores dates of database changes and lists the individual tables that are used for storing the site-specific water quality sample results. Table 1 lists the possible options for the site status. The *ASRSite* table is the source for the ASR Site Menu.

The *ASRPermits* table stores information about all known permits including the permit number and type, the issuing authority, effective dates, and a brief summary of what the permit is for. This table is the source for the Permits tab on the ASR Site Menu.

The *ASRWells* table stores information about all known wells at the ASR sites including the well status, compliance status, location information, depth, formation, and drill date. Table 2 lists the possible options for the well status. The *ASRWells* table is the source for the Wells tab on the ASR Site Menu as well as the Wells subreport.

Table 1. ASR site status.

ASR Site Status
Active
Inactive
On Hold
Conv. To Production
Operational Testing
Experimental
Benchscale Study
Colloid Study
Construction
Proposed
Unknown

Table 2. Well status options.

Well Status Options
Active
Abandoned
Active Monitor Well
Drilling
Expired Permit
Inactive
Plugged and Abandoned
Post-construction Testing
Permit in Progress
Converted to Production Well
Temporary Permit
Temporary Shutdown
Unknown

To more easily identify and store information within the database, designations have been given to each site and their respective wells. Site designations (SiteID) are based on county, while well designations (WellID) are based on the SiteID and the type of well (i.e. A for ASR well, or M for monitor well). Monitor well SZMW-1 from the Rome Avenue site, for example, has been designated HL01-M1.

Correspondence

There are three key tables that store correspondence information: *SiteContacts*, *Contacts*, and *Correspond*. The *Contacts* table stores information about individual contacts in the database including name, title, company, address, phone number, and e-mail. This table (along with the *SiteContacts* table) is the source for the Contacts tab on the ASR Site Menu as well as the Contacts subreport.

The *SiteContacts* table is used to tie a contact from the *Contacts* table to multiple sites. It also stores information about whether the person is an archive contact and/or a primary contact for a given site.

The *Correspond* table stores all information about correspondence including the date, the type of correspondence (telephone, email, fax, letter/mail, or personal communication), and a brief summary of the correspondence. This table is dependent on the *SiteContacts* table, so correspondence for each site and contact has a separate entry. This table is also the source for the Correspondence tab on the ASR Site Menu.

Pumping Data

There are two key tables that store pumping data: *CycleTest* and *MonthlyIO*. The *CycleTest* table stores information about cycles of the ASR sites including the start and end dates of each stage, the length of each stage, and the net storage. The length of each stage and the net volumes are automatically updated when cycle details are updated. The utility of this table (and subsequent forms and reports) will need to be re-evaluated as sites complete cycle testing and run actively without designated “cycles.” This table is the source for the Cycles tab on the ASR Site Menu as well as the Cycles subreport.

The *MonthlyIO* table stores monthly pumping data including start and end dates of the time period, average pumping rate, volumetric balance values, wells used, cycles included in the time period, as well as any comments. In addition, for sites with available pumping data, hyperlinks to this information can be stored in this table.

Sampling Data

There are four key tables that store sampling data: *Inventory*, *SampleLogin*, *LabBatches*, and *LabResults*. The *Inventory* table stores information about each sample that FGS receives including the date and time of the sample, the cycle, well name and a designated LabID given for laboratory testing.

The *SampleLogin* table stores information about a group of samples for a single site when FGS receives them and logs them into the database. This information includes the login date, the range of sample dates, the number of samples, person logging the samples, and whether sample selections were made for the lab. Both the number of samples and the lab selection field are automatically updated when samples are logged in or sent to the lab, respectively. This table is the source for the Sample Login menu.

The *LabBatches* table stores information about a group of samples from multiple sites when FGS selects them to send to the lab. This information includes the date the batch was created, the date sent to the lab, the total number of samples, the sites included (along with the number of samples from each), and any lab files received. The number of samples and the sites included are automatically calculated and updated when a batch detail is updated.

The *LabResults* table stores FGS lab results by SampleID (corresponds to LabID in the *Inventory*). The data are stored as received from the lab with the following modifications:

- All cation/metal data are in micrograms per liter (µg/L)
- Anion and alkalinity data are in milligrams per liter (mg/L)
- All data reported as below detection limit are listed as a negative value
- All data that were run as over range values have been listed in an “Overrange” field and the more accurate over range values are used

In addition to these four key tables, each site can have an individual *SampleWQTable* in the database. Each of these tables can include the sampling date, well, cycle and stage during

sampling, field parameters and lab results received from the site. These tables may not be all inclusive and a list of results stored can be found in the database.

Queries and Reports

A secondary function of the database is to provide query capability. The Water Quality Query form (Figure 4) allows the user to search the results that were tested by FGS and append those results with site reported parameters. The FGS results can be queried by specific analytes or can be accessed all at once; results can be further filtered by site, well, cycle, stage, and date. The queried results can then be viewed in a temporary table or exported as a Microsoft Excel® spreadsheet. The user can also access water quality results that were reported by individual sites and can filter those results by date.

Figure 4. Water quality query form.

Reports are available through this form for the FGS sample results. Additional reports are available throughout the database front-end. One example is the ASR Site Summary report (Figure 5), which gives a summary of information for a given site and includes subreports for

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Contacts, Cycles, and Wells. The header lists general information about the site, while the date and time of the report appear in the upper right corner.

The Contacts subreport lists each current contact along with his or her title, company, address, phone numbers, fax, e-mail address, and any notes. The Cycle Test subreport lists each cycle from most recent to oldest along with recharge and recovery dates, cycle volumes, and any comments. The Wells subreport lists each well in alphabetical order along with description, well status, location information, formation data, drill date, and any comments. Additional information about reports can be found in the front-end-specific user's guide.

ASR Site Summary Report

Monday, November 07, 2011

10:07:44 AM

Rome Avenue

Type: Treated Drinking Water Status: Active (as of 6/10/2010)

Owner: City of Tampa

Water Treatment: Hillsborough River WTP

County: Hillsborough

Site ID: HL01

Contacts Report

Contact Name and Address	Phone and Fax	Notes
John Doe Project Manager, WQ Consultants, Inc. 4500 E. Waters Ave., Suite H20 TAMPA, FL 33609 john_doe@wqc_inc.com	Phone: (813) 555-0111 x69 Mobile: (813) 555-0145 Fax: (813) 555-0169	Primary Contact

Cycle Test Report

Cycle Number	Recharge Dates	Rech. Volume (MGal)	Recovery Dates	Recov. Volume (MGal)	Net Stor. Volume (MGal)	Comments
12	7/11/2011 -		-	0	0	Recharge suspended from Aug. 22nd - Sept. 26th for MW repairs.
11	7/6/2010 - 8/18/2010	406.24	3/4/2011 - 6/30/2011	704	-297.76	As of Dec 2010 (MOR), Total in Storage = 1607.31; Recovery temporarily suspended 03/31/11. Resumed 5/2/11.

Figure 5. Site summary report.

Analysis and Future Potential

The Florida ASR Database has played a critical role in analyzing the status of several sites within the state. Compiling large amounts of data from the sites focused on in this report has taken time, and is not yet complete. The data are only as good as the information that is reported, and quality control varies from site to site. With the number of municipalities looking to ASR as a potential solution for water resource issues, a database such as this will be crucial in the continual monitoring and understanding of the complex issues discussed in this report as well as future issues.

Appendix 2.
ASR Site Water Quality Data

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David L. Tippin (ASR-A); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	02/26/2008	Storage	<10	<1	637000	60800	<20	6300	20000	145000	<10	1	<1	<5	10.7	450	<0.05	<3	<2	<5	1.01	0.16
SZMW-1	03/04/2008	Storage	<10	<1	630000	62900	<20	6900	19800	146000	<10	<1	<1	<5	6.8	220	<0.05	<3	<2	6.6	0.98	0.2
SZMW-1	03/18/2008	Storage	<10	<1	634000	59100	<20	6400	19200	138000	<10	<1	<1	<5	18.3	340	<0.05	<3	<2	<5	0.88	0.17
SZMW-1	04/01/2008	Storage	<10	<1	631000	56400	<20	6200	17800	129000	<10	<1	<1	<5	14.4	380	0.787	<3	<2	5.5	0.75	0.15
SZMW-1	04/08/2008	Storage	13	<0.1	658000	66600	<2	7800	23200	151000	1	1.5	<0.1	<0.5	14.4	330	<0.005	0.6	41	43.7	0.02	0.03
SZMW-1	04/22/2008	Storage	12	<0.1	653000	66500	<2	7700	23700	151000	1	1.4	<0.1	<0.5	12.7	330	<0.005	0.6	7.6	3.4	0.01	0.03
SZMW-1	05/06/2008	Storage	13	<0.1	656000	66200	4	7900	23900	152000	1	1.5	<0.1	<0.5	17.2	680	0.005	1.1	167	110	0.01	0.04
SZMW-2	02/26/2008	Storage	<10	<1	297000	31200	42	6100	10700	99500	<10	<1	3	<5	4.1	<100	0.126	6.1	<2	5.3	0.7	0.17
SZMW-2	03/18/2008	Storage	<10	<1	276000	29500	<20	6300	10100	94200	<10	<1	2.1	<5	3.6	<100	0.102	5.2	<2	<5	0.65	0.18
SZMW-2	04/01/2008	Storage	<10	<1	269000	28500	<20	6200	9780	92800	<10	<1	1.8	<5	3.6	<100	0.094	4.8	<2	<5	0.61	0.14
SZMW-2	04/08/2008	Storage	9	<0.1	343000	33900	4	8000	11900	109000	1	1.4	1	<0.5	3.2	<10	0.068	4.4	0.5	1.4	0.04	0.03
SZMW-2	04/22/2008	Storage	9	<0.1	337000	33400	3	7900	11400	109000	1	1.4	0.8	<0.5	3.1	10	0.045	3.8	0.3	1.2	0.03	0.03
SZMW-2	05/06/2008	Storage	9	<0.1	330000	33100	3	7800	11100	107000	1	1.5	0.7	<0.5	3.1	20	0.049	3.7	8.6	12.5	0.04	0.02

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Well Name	Date Collected	Phase	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I	Cs	Ba
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	02/26/2008	Storage	8.18	<2	3890	7.29	2520	<0.03	<0.1	<0.05	45.1	<0.1	<0.1	<2	0.11	<0.01	<1	<0.1	<1	<10	0.079	20.3
SZMW-1	03/04/2008	Storage	5.08	<2	3900	7.34	2580	<0.03	<0.1	<0.05	44.2	<0.1	<0.1	<2	<0.1	<0.01	<1	0.23	<1	<10	0.087	20.5
SZMW-1	03/18/2008	Storage	5.29	<2	3780	7.05	2570	<0.03	<0.1	<0.05	43.2	<0.1	<0.1	<2	<0.1	<0.01	<1	0.14	<1	<10	0.08	20.4
SZMW-1	04/01/2008	Storage	6.06	<2	3630	6.84	2600	<0.03	<0.1	<0.05	43.8	<0.1	<0.1	<2	0.11	<0.01	<1	0.13	<1	15	0.079	20.8
SZMW-1	04/08/2008	Storage	8.06	<0.2	4400	7.65	2670	0.009	<0.01	0.006	45.2	<0.01	<0.01	<0.2	0.13	0.003	0.3	0.15	0.2	159	0.081	21.1
SZMW-1	04/22/2008	Storage	8.88	<0.2	4350	7.72	2670	0.007	<0.01	0.007	45.1	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	0.09	0.1	150	0.08	21.1
SZMW-1	05/06/2008	Storage	8.44	<0.2	4280	7.82	2690	0.011	<0.01	0.007	46.2	<0.01	<0.01	<0.2	0.13	0.011	1.5	0.17	0.2	153	0.081	21.3
SZMW-2	02/26/2008	Storage	34	<2	2010	6.55	1810	<0.03	<0.1	<0.05	133	<0.1	<0.1	<2	0.28	<0.01	<1	0.27	<1	<10	0.079	16.2
SZMW-2	03/18/2008	Storage	32.8	<2	1850	6.02	1720	<0.03	<0.1	<0.05	133	<0.1	<0.1	<2	0.25	<0.01	<1	0.19	<1	<10	0.074	16.3
SZMW-2	04/01/2008	Storage	33.5	<2	1830	6.06	1720	<0.03	<0.1	<0.05	129	<0.1	<0.1	<2	0.28	<0.01	<1	0.15	<1	15	0.076	16.8
SZMW-2	04/08/2008	Storage	39.8	<0.2	2130	6.47	1680	0.005	<0.01	0.005	129	<0.01	<0.01	<0.2	0.32	<0.001	<0.1	0.13	<0.1	150	0.071	16.2
SZMW-2	04/22/2008	Storage	39.6	<0.2	2030	6.22	1650	0.005	<0.01	<0.005	125	<0.01	<0.01	<0.2	0.33	<0.001	<0.1	0.1	<0.1	158	0.065	15.6
SZMW-2	05/06/2008	Storage	40.4	<0.2	2080	6.01	1650	0.005	<0.01	<0.005	122	<0.01	<0.01	<0.2	0.31	<0.001	<0.1	0.1	<0.1	158	0.068	15.8

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David L. Tippin (ASR-A); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	02/26/2008	Storage	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	03/04/2008	Storage	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	03/18/2008	Storage	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	04/01/2008	Storage	0.012	0.019	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	04/08/2008	Storage	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/22/2008	Storage	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
SZMW-1	05/06/2008	Storage	0.003	0.005	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
SZMW-2	02/26/2008	Storage	0.013	0.014	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-2	03/18/2008	Storage	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-2	04/01/2008	Storage	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-2	04/08/2008	Storage	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001
SZMW-2	04/22/2008	Storage	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
SZMW-2	05/06/2008	Storage	0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

David L. Tippin (ASR-A); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	02/26/2008	Storage	<0.2	0.088	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.081
SZMW-1	03/04/2008	Storage	<0.2	0.097	<0.02	<3	<0.02	<2	<0.01	0.19	<3	<0.01	0.272
SZMW-1	03/18/2008	Storage	<0.2	0.095	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.24
SZMW-1	04/01/2008	Storage	<0.2	0.09	<0.02	<3	<0.02	<2	<0.01	0.46	<3	<0.01	0.246
SZMW-1	04/08/2008	Storage	<0.02	0.09	<0.002	<0.3	0.01	<0.2	<0.001	2.2	<0.3	<0.001	0.252
SZMW-1	04/22/2008	Storage	<0.02	0.095	<0.002	<0.3	0.008	<0.2	<0.001	0.1	<0.3	<0.001	0.209
SZMW-1	05/06/2008	Storage	<0.02	0.09	<0.002	<0.3	0.012	<0.2	<0.001	6	<0.3	<0.001	0.202
SZMW-2	02/26/2008	Storage	<0.2	0.382	<0.02	<3	<0.02	<2	0.015	0.13	<3	<0.01	10.3
SZMW-2	03/18/2008	Storage	<0.2	0.366	<0.02	<3	<0.02	<2	0.015	<0.1	<3	<0.01	9.62
SZMW-2	04/01/2008	Storage	<0.2	0.373	<0.02	<3	<0.02	<2	0.011	<0.1	<3	<0.01	9.6
SZMW-2	04/08/2008	Storage	<0.02	0.365	<0.002	<0.3	0.006	<0.2	0.01	<0.01	<0.3	<0.001	8.29
SZMW-2	04/22/2008	Storage	<0.02	0.358	<0.002	<0.3	0.007	<0.2	0.009	<0.01	<0.3	<0.001	7.77
SZMW-2	05/06/2008	Storage	<0.02	0.345	<0.002	<0.3	0.005	<0.2	0.008	0.4	<0.3	<0.001	7.52

FLORIDA GEOLOGICAL SURVEY

David L. Tippin (ASR-B); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-B	11/27/2007	Injection	5	<0.1	46900	5350	8	5000	3000	80200	<1	1.4	0.3	<0.5	3.4	<10	0.251	4.3	3.5	15.3	0.02
ASR-B	12/04/2007	Injection	7	<0.1	76600	6430	6	4600	2800	75200	<1	1.8	0.2	0.6	7.5	<10	0.43	4.4	2.4	10.1	0.01
ASR-B	02/22/2008	Storage	<10	<1	33600	4920	34	3800	3020	84000	<10	<1	<1	<5	13.9	<100	0.568	3.9	3.1	76.4	1.34
ASR-B	05/06/2008	Recovery	14	<0.1	382000	40600	3	6400	15400	123000	1	3	2.2	<0.5	9.3	80	1.12	13.2	9.6	19.6	0.03
ASR-B	05/13/2008	Recovery	15	<0.1	431000	46300	2	6800	18000	127000	1	3	1.2	<0.5	8.7	90	1.09	13.4	4	12.9	0.03
ASR-B	05/20/2008	Recovery	16	<0.1	465000	49000	2	6900	24000	134000	1	3.1	0.8	<0.5	8.2	100	1.05	13.9	5.2	9.1	0.03
ASR-B	05/18/2010	Recovery	3	<0.1	120000	16300	3	3300	5560	65000	1	0.9	8.9	1.1	56.8	<10	2.7	6.7	12.6	14.2	0.03
ASR-B	05/25/2010	Recovery	3	<0.1	144000	19800	19	3400	6590	74300	1	1	9.2	1.5	35.3	<10	2.43	6.8	43.2	13.4	0.03
ASR-B	06/01/2010	Recovery	5	<0.1	200000	24200	3	3800	8890	84700	1	1.1	8.3	1.5	31.8	<10	2.47	7.4	15.6	9.8	0.03
ASR-B	06/08/2010	Recovery	7	<0.1	273000	25500	3	4900	10600	81600	2	1.5	7.4	1.5	26.3	<10	2.8	7.5	6.3	14	0.03
ASR-B	06/15/2010	Recovery	5	<0.1	311000	35300	5	4000	11000	107000	<1	0.9	4.8	<0.5	19.9	110	1.89	7.9	5.9	6.6	0.02
ASR-B	06/29/2010	Storage	7	<0.1	356000	39600	<2	4800	14000	114000	1	1	4	<0.5	13.9	160	1.55	9.7	3.4	6.5	0.03
ASR-B	07/06/2010	Storage	8	<0.1	379000	42400	<2	5300	15400	119000	1	1.1	3.6	<0.5	12.6	180	1.47	11.1	57.3	22	0.02
APMW-4	10/16/2007	Storage	15	<0.1	183000	21300	13	7500	9450	82600	1	2.7	3.6	<0.5	2.2	<10	0.005	0.7	0.3	4.4	0.03
APMW-4	10/30/2007	Storage	11	<0.1	205000	26700	39	8200	8920	91000	1	2.7	5.4	<0.5	2.2	<10	<0.005	0.8	5.5	6.8	0.02
APMW-4	11/27/2007	Injection	9	<0.1	130000	18000	7	8400	6470	82700	1	2.4	22.5	<0.5	1.9	<10	0.035	0.9	1.7	5.1	0.02
APMW-4	12/04/2007	Injection	9	<0.1	130000	19800	3	7600	6240	83700	1	2.1	37.1	<0.5	1.8	<10	0.068	1.3	5	5.3	0.02
APMW-4	02/22/2008	Storage	<10	<1	165000	21700	<20	6100	7740	85400	<10	<1	8.1	<5	4.8	<100	<0.05	<3	3.5	7.6	1.34
APMW-4	03/04/2008	Storage	<10	<1	182000	24800	<20	6200	8050	90000	<10	<1	12.1	<5	4.6	<100	<0.05	<3	41	8.6	1.3
APMW-4	03/18/2008	Storage	<10	<1	182000	24900	<20	6000	7820	87100	<10	<1	9.2	<5	4.4	<100	<0.05	<3	24.2	9.1	1.2
APMW-4	04/01/2008	Storage	10	<0.1	197000	25700	4	7000	8920	86000	1	2.4	7.5	<0.5	2.1	<10	0.012	1	1.5	2.8	0.02
APMW-4	04/22/2008	Storage	10	<0.1	203000	25900	3	7300	9350	87700	1	2.2	5.5	<0.5	2.2	<10	<0.005	1	0.9	3	0.02
APMW-4	04/29/2008	Recovery	9	<0.1	200000	26300	3	7200	9220	85300	1	2	4.6	<0.5	2.2	<10	0.006	1	51.7	6.3	0.02
APMW-4	05/06/2008	Recovery	9	<0.1	220000	27400	3	7300	9740	88100	1	2.3	2.9	<0.5	2.1	<10	<0.005	0.9	58.8	9.5	0.01
APMW-4	05/13/2008	Recovery	9	<0.1	239000	29200	5	7800	9870	93500	1	2.1	1.8	<0.5	2.2	<10	<0.005	0.7	46	4.5	0.02
APMW-4	05/23/2008	Recovery	9	<0.1	260000	31400	4	8000	10500	97300	1	1.9	0.9	<0.5	2.3	<10	<0.005	0.8	7.2	6.5	0.01
APMW-4	06/03/2008	Recovery	10	<0.1	287000	33300	2	8100	11300	102000	1	2.2	0.3	<0.5	2.3	<10	<0.005	0.6	5.3	3.8	0.01
APMW-4	06/23/2008	Storage	9	<0.1	270000	31800	6	8000	11400	99600	1	1.7	0.3	<0.5	2.4	<10	<0.005	0.6	2.1	6.1	0.01
APMW-4	07/08/2008	Storage	10	<0.1	284000	33400	3	8200	12100	101000	1	1.8	<0.1	<0.5	2.6	<10	<0.005	0.7	2.4	5.7	0.02
APMW-4	08/05/2008	Storage	10	<0.1	274000	32900	4	8400	12500	101000	1	1.7	0.4	<0.5	6.1	<10	<0.005	0.7	1.8	8.1	0.02
APMW-4	06/15/2010	Recovery	5	<0.1	225000	29200	17	5900	8340	88300	2	1.5	7.2	<0.5	3.2	130	0.07	0.8	1.8	4.7	0.01
APMW-4	06/29/2010	Storage	2	<0.1	227000	12900	5	2900	4130	90300	<1	0.7	2.4	<0.5	1.1	60	0.025	<0.3	16.1	4.1	<0.01
APMW-4	07/06/2010	Storage	5	<0.1	247000	31100	8	6600	9650	95600	2	1.7	4.3	<0.5	3	150	0.047	0.9	2.8	8.5	<0.01

REPORT OF INVESTIGATION NO. 112

David L. Tippin (ASR-B); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I	Cs
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-B	11/27/2007	Injection	0.04	0.32	<0.2	135	4.22	310	0.006	<0.01	0.007	0.1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.03	<0.1	25	0.13
ASR-B	12/04/2007	Injection	0.04	0.48	<0.2	118	4.11	480	0.006	0.03	<0.005	0.2	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	0.03	<0.1	36	0.127
ASR-B	02/22/2008	Storage	0.16	0.58	<2	87	4.24	303	0.046	0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10	0.13
ASR-B	05/06/2008	Recovery	0.03	56.5	<0.2	2420	6.49	1770	0.007	0.06	<0.005	129	<0.01	<0.01	<0.2	0.46	<0.001	0.1	0.36	<0.1	48	0.116
ASR-B	05/13/2008	Recovery	0.03	58.8	<0.2	2720	6.83	1970	0.007	0.05	<0.005	117	<0.01	<0.01	<0.2	0.37	<0.001	<0.1	0.27	0.1	47	0.118
ASR-B	05/20/2008	Recovery	0.03	60	<0.2	2940	7.24	2100	0.008	0.06	<0.005	109	<0.01	<0.01	<0.2	0.34	<0.001	<0.1	0.26	0.2	50	0.122
ASR-B	05/18/2010	Recovery	0.02	22.4	2.2	621	3.56	580	0.007	0.02	<0.005	244	<0.01	0.15	<0.2	1.29	<0.001	0.3	0.99	<0.1	9	0.056
ASR-B	05/25/2010	Recovery	0.02	27.4	2.6	848	3.84	690	0.007	2.62	<0.005	246	<0.01	0.1	<0.2	1.23	<0.001	1.2	1.05	<0.1	9	0.06
ASR-B	06/01/2010	Recovery	0.02	33	3.1	1380	4.65	910	0.008	0.06	<0.005	210	<0.01	0.05	<0.2	1	<0.001	0.4	0.85	<0.1	11	0.071
ASR-B	06/08/2010	Recovery	0.03	39.3	6.4	1850	5.53	1000	0.012	0.04	<0.005	208	<0.01	0.18	<0.2	1.1	<0.001	<0.1	0.68	0.1	16	0.086
ASR-B	06/15/2010	Recovery	0.02	31	4	1640	4.39	1390	0.007	0.01	<0.005	146	0.01	<0.01	<0.2	1.12	<0.001	<0.1	0.42	<0.1	4	0.066
ASR-B	06/29/2010	Storage	0.02	37.9	5.5	2120	5.56	1520	0.004	0.03	<0.005	146	0.01	<0.01	<0.2	0.36	<0.001	<0.1	0.36	<0.1	6	0.083
ASR-B	07/06/2010	Storage	0.02	38.8	6.2	2210	5.92	1640	0.005	0.03	<0.005	139	0.01	<0.01	<0.2	0.37	<0.001	1.3	0.38	<0.1	6	0.082
APMW-4	10/16/2007	Storage	0.01	24.6	<0.2	1220	8.62	1180	0.004	<0.01	<0.005	95.8	<0.01	<0.01	<0.2	0.29	<0.001	<0.1	0.04	<0.1	47	0.215
APMW-4	10/30/2007	Storage	0.02	40	<0.2	1390	3.37	1260	0.005	0.01	<0.005	101	<0.01	<0.01	<0.2	0.28	<0.001	<0.1	0.29	<0.1	52	0.046
APMW-4	11/27/2007	Injection	0.03	28.1	<0.2	866	3.23	1090	0.003	0.02	<0.005	138	<0.01	<0.01	<0.2	0.36	<0.001	<0.1	1.72	<0.1	45	0.043
APMW-4	12/04/2007	Injection	0.03	26.9	<0.2	794	3.03	1050	0.004	<0.01	<0.005	148	<0.01	<0.01	<0.2	0.42	<0.001	<0.1	2.49	<0.1	55	0.033
APMW-4	02/22/2008	Storage	0.14	53.8	<2	777	4.84	1060	<0.03	<0.1	<0.05	116	<0.1	<0.1	<2	0.24	<0.01	<1	0.96	<1	<10	0.076
APMW-4	03/04/2008	Storage	0.17	61.2	<2	869	3.49	1110	<0.03	<0.1	<0.05	118	<0.1	<0.1	<2	0.19	<0.01	<1	1.47	<1	<10	0.034
APMW-4	03/18/2008	Storage	0.16	61	<2	934	3.6	1130	<0.03	<0.1	<0.05	114	<0.1	<0.1	<2	0.18	<0.01	<1	0.81	<1	<10	0.036
APMW-4	04/01/2008	Storage	0.02	61.9	<0.2	1150	3.5	1140	0.003	0.02	<0.005	115	<0.01	<0.01	<0.2	0.31	<0.001	<0.1	0.52	<0.1	39	0.043
APMW-4	04/22/2008	Storage	0.01	63.2	<0.2	1250	3.68	1180	0.003	0.01	<0.005	109	<0.01	<0.01	<0.2	0.27	<0.001	<0.1	0.34	<0.1	42	0.041
APMW-4	04/29/2008	Recovery	0.02	60.2	<0.2	1220	3.58	1160	0.004	0.01	<0.005	107	<0.01	<0.01	<0.2	0.29	<0.001	0.2	0.28	<0.1	45	0.041
APMW-4	05/06/2008	Recovery	0.01	51.3	<0.2	1370	3.64	1220	0.004	0.01	<0.005	92.7	<0.01	<0.01	<0.2	0.26	<0.001	0.2	0.19	<0.1	45	0.04
APMW-4	05/13/2008	Recovery	0.02	40.5	<0.2	1540	3.75	1290	0.005	0.01	<0.005	81.2	<0.01	<0.01	<0.2	0.23	<0.001	0.2	0.14	<0.1	44	0.043
APMW-4	05/23/2008	Recovery	0.02	29.9	<0.2	1780	3.91	1360	0.004	<0.01	<0.005	71.3	<0.01	<0.01	<0.2	0.18	<0.001	<0.1	0.07	<0.1	45	0.049
APMW-4	06/03/2008	Recovery	0.02	24.3	<0.2	1990	3.9	1460	0.003	<0.01	<0.005	62.2	<0.01	<0.01	<0.2	0.16	<0.001	<0.1	0.06	<0.1	45	0.05
APMW-4	06/23/2008	Storage	0.02	28.8	<0.2	1800	4.26	1390	0.003	0.01	<0.005	67.1	<0.01	<0.01	<0.2	0.19	<0.001	<0.1	0.05	<0.1	46	0.054
APMW-4	07/08/2008	Storage	0.02	34.7	<0.2	1920	4.32	1430	0.005	<0.01	<0.005	60.1	<0.01	<0.01	<0.2	0.18	<0.001	0.1	0.06	<0.1	83	0.052
APMW-4	08/05/2008	Storage	0.02	36.3	<0.2	1920	4.37	1420	0.006	0.01	<0.005	61.8	<0.01	<0.01	<0.2	0.16	<0.001	0.8	0.11	<0.1	88	0.053
APMW-4	06/15/2010	Recovery	0.02	29.6	<0.2	1290	3.47	1210	0.008	0.01	<0.005	72.4	0.01	<0.01	<0.2	0.24	<0.001	<0.1	0.26	<0.1	11	0.039
APMW-4	06/29/2010	Storage	0.01	13.5	<0.2	613	1.69	1230	0.003	0.01	<0.005	34.7	0.01	<0.01	<0.2	0.07	<0.001	0.4	0.11	<0.1	5	0.027
APMW-4	07/06/2010	Storage	0.02	28	1	1670	4.13	1310	0.006	0.01	<0.005	71.3	0.02	<0.01	<0.2	0.16	<0.001	<0.1	0.23	<0.1	11	0.058

FLORIDA GEOLOGICAL SURVEY

David L. Tippin (ASR-B); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-B	11/27/2007	Injection	13.8	0.002	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
ASR-B	12/04/2007	Injection	13.5	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-B	02/22/2008	Storage	14.9	0.1	0.133	0.022	0.109	0.021	<0.01	0.013	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-B	05/06/2008	Recovery	13.8	0.006	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
ASR-B	05/13/2008	Recovery	14.2	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-B	05/20/2008	Recovery	14.2	0.001	0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-B	05/18/2010	Recovery	9.1	0.001	0.002	<0.001	0.003	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
ASR-B	05/25/2010	Recovery	9.1	0.002	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.063
ASR-B	06/01/2010	Recovery	9.9	0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001
ASR-B	06/08/2010	Recovery	11.4	0.001	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-B	06/15/2010	Recovery	9.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
ASR-B	06/29/2010	Storage	10.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-B	07/06/2010	Storage	11.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	10/16/2007	Storage	17.3	0.002	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	10/30/2007	Storage	10.9	0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	11/27/2007	Injection	11.7	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	12/04/2007	Injection	10.8	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	02/22/2008	Storage	12.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
APMW-4	03/04/2008	Storage	8.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
APMW-4	03/18/2008	Storage	8.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
APMW-4	04/01/2008	Storage	8.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	04/22/2008	Storage	9.1	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	04/29/2008	Recovery	9.2	0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	05/06/2008	Recovery	9.7	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	05/13/2008	Recovery	10.8	0.002	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	05/23/2008	Recovery	12	0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	06/03/2008	Recovery	12.4	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	06/23/2008	Storage	12.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	07/08/2008	Storage	12.2	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	08/05/2008	Storage	12.4	0.001	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	06/15/2010	Recovery	9.7	0.011	0.013	0.002	0.008	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	06/29/2010	Storage	5	0.002	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-4	07/06/2010	Storage	13	0.005	0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

David L. Tippin (ASR-B); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-B	11/27/2007	Injection	<0.001	<0.02	0.007	<0.002	<0.3	0.004	<0.2	0.009	0.3	<0.3	<0.001	0.226
ASR-B	12/04/2007	Injection	<0.001	<0.02	0.011	<0.002	<0.3	0.002	<0.2	0.01	0.1	<0.3	<0.001	0.44
ASR-B	02/22/2008	Storage	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	0.011	11.8	<3	<0.01	0.216
ASR-B	05/06/2008	Recovery	<0.001	<0.02	0.278	<0.002	<0.3	0.023	<0.2	0.273	7	<0.3	<0.001	8.49
ASR-B	05/13/2008	Recovery	<0.001	<0.02	0.252	<0.002	<0.3	0.018	<0.2	0.272	1.9	<0.3	<0.001	7.8
ASR-B	05/20/2008	Recovery	<0.001	<0.02	0.233	<0.002	<0.3	0.019	<0.2	0.264	1.8	<0.3	<0.001	7.59
ASR-B	05/18/2010	Recovery	<0.001	<0.02	0.571	<0.002	<0.3	<0.002	<0.2	0.373	0.89	<0.3	<0.001	9.08
ASR-B	05/25/2010	Recovery	<0.001	<0.02	0.581	<0.002	<0.3	<0.002	<0.2	0.396	3.38	<0.3	<0.001	9.3
ASR-B	06/01/2010	Recovery	<0.001	<0.02	0.5	<0.002	<0.3	<0.002	<0.2	0.443	1.36	<0.3	<0.001	9.43
ASR-B	06/08/2010	Recovery	<0.001	<0.02	0.505	<0.002	<0.3	<0.002	<0.2	0.51	0.31	<0.3	<0.001	9.92
ASR-B	06/15/2010	Recovery	<0.001	<0.02	0.384	<0.002	<0.3	<0.002	<0.2	0.472	0.71	<0.3	<0.001	8.96
ASR-B	06/29/2010	Storage	<0.001	<0.02	0.326	<0.002	<0.3	<0.002	<0.2	0.465	<0.01	<0.3	<0.001	8.69
ASR-B	07/06/2010	Storage	<0.001	<0.02	0.307	<0.002	<0.3	<0.002	<0.2	0.466	3.88	<0.3	<0.001	8.56
APMW-4	10/16/2007	Storage	<0.001	0.06	0.22	<0.002	<0.3	0.006	<0.2	0.003	0.1	<0.3	<0.001	4.74
APMW-4	10/30/2007	Storage	<0.001	0.03	0.245	<0.002	<0.3	0.008	<0.2	0.004	0.3	<0.3	<0.001	5.22
APMW-4	11/27/2007	Injection	<0.001	0.02	0.296	<0.002	<0.3	0.006	<0.2	0.033	0.2	<0.3	<0.001	10.5
APMW-4	12/04/2007	Injection	<0.001	0.03	0.343	<0.002	<0.3	0.006	<0.2	0.059	0.4	<0.3	<0.001	11.4
APMW-4	02/22/2008	Storage	<0.01	<0.2	0.313	<0.02	<3	<0.02	<2	<0.01	0.24	<3	<0.01	4.81
APMW-4	03/04/2008	Storage	<0.01	<0.2	0.311	<0.02	<3	<0.02	<2	<0.01	1.01	<3	<0.01	4.61
APMW-4	03/18/2008	Storage	<0.01	<0.2	0.287	<0.02	<3	<0.02	<2	<0.01	0.84	<3	<0.01	4.37
APMW-4	04/01/2008	Storage	<0.001	0.03	0.299	<0.002	<0.3	0.007	<0.2	0.008	0.1	<0.3	<0.001	4.47
APMW-4	04/22/2008	Storage	<0.001	0.03	0.277	<0.002	<0.3	0.005	<0.2	0.006	0.1	<0.3	<0.001	4.17
APMW-4	04/29/2008	Recovery	<0.001	0.03	0.274	<0.002	<0.3	0.007	<0.2	0.007	1.6	<0.3	<0.001	4.28
APMW-4	05/06/2008	Recovery	<0.001	0.03	0.237	<0.002	<0.3	0.007	<0.2	0.004	1.7	<0.3	<0.001	3.46
APMW-4	05/13/2008	Recovery	<0.001	0.03	0.199	<0.002	<0.3	0.053	<0.2	0.003	1	<0.3	<0.001	3.35
APMW-4	05/23/2008	Recovery	<0.001	0.04	0.172	<0.002	<0.3	0.009	<0.2	0.002	0.3	<0.3	<0.001	3.11
APMW-4	06/03/2008	Recovery	<0.001	0.03	0.148	<0.002	<0.3	0.009	<0.2	0.001	0.4	<0.3	<0.001	2.77
APMW-4	06/23/2008	Storage	<0.001	0.05	0.159	<0.002	<0.3	0.008	<0.2	0.001	0.2	<0.3	<0.001	2.91
APMW-4	07/08/2008	Storage	<0.001	0.05	0.161	<0.002	<0.3	0.012	<0.2	0.001	0.2	<0.3	<0.001	2.97
APMW-4	08/05/2008	Storage	<0.001	0.04	0.156	<0.002	<0.3	0.007	<0.2	0.002	0.2	<0.3	<0.001	3.12
APMW-4	06/15/2010	Recovery	<0.001	0.02	0.199	<0.002	<0.3	<0.002	<0.2	0.015	0.06	<0.3	0.002	3.98
APMW-4	06/29/2010	Storage	<0.001	0.02	0.104	<0.002	<0.3	<0.002	<0.2	0.009	1.41	<0.3	<0.001	2.17
APMW-4	07/06/2010	Storage	<0.001	0.03	0.175	<0.002	<0.3	<0.002	<0.2	0.013	0.04	<0.3	<0.001	3.85

FLORIDA GEOLOGICAL SURVEY

David L. Tippin (ASR-B); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
APMW-5	10/16/2007	Storage	4	<0.1	46600	6690	8	5200	3180	81900	<1	1.1	12.9	1.5	2.1	<10	0.355	5.7	1.8	1.7	0.02
APMW-5	10/30/2007	Storage	5	<0.1	81900	7910	7	4800	3040	76000	<1	1.2	9.3	1.5	1.7	<10	0.257	6	1.2	1.3	0.02
APMW-5	11/27/2007	Injection	7	<0.1	167000	21700	3	8000	7990	95700	1	1.7	26.7	<0.5	5	<10	1.16	14.9	<0.2	3.7	0.04
APMW-5	12/04/2007	Injection	7	<0.1	164000	21600	3	7900	7830	93600	1	1.5	13.4	<0.5	4.8	<10	1.18	15.1	<0.2	1.1	0.04
APMW-5	02/22/2008	Storage	<10	<1	108000	14200	<20	5100	4170	87300	<10	<1	7.1	<5	6.3	<100	0.903	10.7	<2	5.1	1.2
APMW-5	03/04/2008	Storage	<10	<1	116000	15400	<20	5200	4620	89200	<10	<1	5.3	<5	6.8	<100	1.09	12.1	<2	5.4	1.14
APMW-5	03/18/2008	Storage	<10	<1	116000	15600	<20	5300	4610	85900	<10	<1	4.2	<5	6.3	<100	0.968	12.6	<2	5	1.1
APMW-5	04/01/2008	Storage	6	<0.1	134000	19800	6	6300	5590	90200	<1	1.4	4	<0.5	4.9	<10	0.918	12	<0.2	1.5	0.03
APMW-5	04/22/2008	Storage	6	<0.1	138000	17900	2	6800	6070	90200	<1	1.3	3.3	<0.5	4.6	30	0.936	12.6	<0.2	1.3	0.03
APMW-5	04/29/2008	Recovery	6	<0.1	146000	18400	2	6600	6320	90800	1	1.4	3.1	<0.5	4.1	30	0.901	12.8	<0.2	1.2	0.03
APMW-5	05/06/2008	Recovery	7	<0.1	178000	21600	3	8000	8100	93800	1	1.7	5	<0.5	3.8	30	0.826	13.2	<0.2	1.2	0.03
APMW-5	05/13/2008	Recovery	7	<0.1	210000	24600	3	8000	9130	97200	1	1.6	4	<0.5	3.9	50	0.798	13.5	<0.2	2.2	0.03
APMW-5	05/23/2008	Recovery	5	<0.1	218000	25800	<2	7000	7520	97600	1	1.1	3.1	<0.5	3.4	70	0.721	13.1	<0.2	1.5	0.03
APMW-5	06/03/2008	Recovery	6	<0.1	221000	26300	<2	7400	7890	96700	1	1.2	2.6	<0.5	3.4	90	0.674	13.5	<0.2	2.3	0.02
APMW-5	06/23/2008	Storage	6	<0.1	214000	25300	<2	7000	7320	96100	1	1.2	2	<0.5	3.6	80	0.694	12.8	<0.2	2.8	0.02
APMW-5	07/08/2008	Storage	6	<0.1	205000	24800	<2	7200	7370	96600	1	1.2	1.9	<0.5	3.8	90	0.745	13.6	1.5	5.2	0.03
APMW-5	07/29/2008	Storage	6	<0.1	201000	23900	<2	7300	7490	94200	1	1.2	1.7	<0.5	3.8	90	0.722	14	2.2	4.4	0.02
APMW-5	06/15/2010	Recovery	5	<0.1	221000	26500	3	5700	9360	93500	2	1.4	4.8	<0.5	4.7	180	0.964	11.4	2.8	2.6	0.02
APMW-5	06/29/2010	Storage	5	<0.1	215000	26300	<2	5500	9240	93000	2	1.1	1.7	<0.5	4.5	120	0.882	11.4	11.1	13.8	0.02
APMW-5	07/06/2010	Storage	5	<0.1	226000	28100	<2	6100	9760	96400	2	1.1	3.3	<0.5	4.3	160	0.844	11.4	2.9	4.7	0.02

REPORT OF INVESTIGATION NO. 112

David L. Tippin (ASR-B); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I	Cs
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
APMW-5	10/16/2007	Storage	0.04	3.19	0.8	153	4.05	320	0.004	0.04	<0.005	34.9	<0.01	<0.01	<0.2	0.25	<0.001	<0.1	0.79	<0.1	19	0.118
APMW-5	10/30/2007	Storage	0.05	2.69	0.7	133	4.02	500	0.005	0.04	<0.005	13.2	<0.01	<0.01	<0.2	0.16	<0.001	<0.1	0.36	<0.1	36	0.113
APMW-5	11/27/2007	Injection	0.02	63.7	<0.2	1150	3.96	1000	0.004	0.08	<0.005	197	<0.01	<0.01	<0.2	0.78	<0.001	<0.1	2.54	<0.1	80	0.081
APMW-5	12/04/2007	Injection	0.02	73.6	<0.2	1100	3.95	990	0.003	0.07	<0.005	221	<0.01	<0.01	<0.2	0.77	<0.001	<0.1	1.08	<0.1	88	0.077
APMW-5	02/22/2008	Storage	0.15	41.1	<2	455	3.94	696	<0.03	<0.1	<0.05	205	<0.1	<0.1	<2	0.56	<0.01	<1	0.6	<1	18	0.071
APMW-5	03/04/2008	Storage	0.18	46.2	<2	513	3.88	737	<0.03	<0.1	<0.05	228	<0.1	<0.1	<2	0.41	<0.01	<1	0.46	<1	14	0.072
APMW-5	03/18/2008	Storage	0.16	48.3	<2	540	3.81	798	<0.03	<0.1	<0.05	225	<0.1	<0.1	<2	0.45	<0.01	<1	0.41	<1	14	0.068
APMW-5	04/01/2008	Storage	0.03	56	<0.2	681	3.77	840	0.004	0.05	<0.005	217	<0.01	<0.01	<0.2	0.64	<0.001	<0.1	0.35	<0.1	64	0.072
APMW-5	04/22/2008	Storage	0.02	61.3	<0.2	782	3.92	860	0.004	0.04	<0.005	208	<0.01	<0.01	<0.2	0.58	<0.001	<0.1	0.31	<0.1	64	0.073
APMW-5	04/29/2008	Recovery	0.02	70	<0.2	807	3.93	870	0.003	0.04	<0.005	208	<0.01	<0.01	<0.2	0.59	<0.001	<0.1	0.35	<0.1	64	0.07
APMW-5	05/06/2008	Recovery	0.02	57.8	<0.2	1150	4.06	1050	0.003	0.04	<0.005	156	<0.01	<0.01	<0.2	0.48	<0.001	<0.1	0.71	<0.1	55	0.073
APMW-5	05/13/2008	Recovery	0.02	55.9	<0.2	1360	4.19	1140	0.005	0.05	<0.005	131	<0.01	<0.01	<0.2	0.44	<0.001	<0.1	0.59	<0.1	55	0.077
APMW-5	05/23/2008	Recovery	0.02	54.9	<0.2	1390	4.15	1200	0.005	0.04	0.006	115	<0.01	<0.01	<0.2	0.35	<0.001	<0.1	0.51	<0.1	236	0.071
APMW-5	06/03/2008	Recovery	0.02	55.3	<0.2	1470	4.27	1230	0.004	0.04	0.007	108	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.44	<0.1	248	0.071
APMW-5	06/23/2008	Storage	0.01	63.4	<0.2	1340	4.02	1180	0.004	0.04	0.006	107	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.27	<0.1	277	0.071
APMW-5	07/08/2008	Storage	0.02	74	<0.2	1350	4.21	1130	0.004	0.02	<0.005	112	<0.01	<0.01	<0.2	0.32	<0.001	0.1	0.28	<0.1	486	0.073
APMW-5	07/29/2008	Storage	0.02	79.4	<0.2	1280	4.22	1100	0.004	0.03	<0.005	113	<0.01	<0.01	<0.2	0.3	<0.001	0.8	0.25	<0.1	500	0.074
APMW-5	06/15/2010	Recovery	0.02	36.6	1.3	1400	4.29	1110	0.008	0.04	<0.005	152	0.01	<0.01	<0.2	0.49	<0.001	<0.1	0.69	<0.1	16	0.071
APMW-5	06/29/2010	Storage	0.02	37.2	0.2	1430	4.5	1110	0.004	0.03	<0.005	147	0.01	<0.01	<0.2	0.4	<0.001	0.2	0.49	<0.1	20	0.073
APMW-5	07/06/2010	Storage	0.02	36.9	3.3	1440	4.2	1190	0.003	0.03	<0.005	126	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.39	<0.1	7	0.068

FLORIDA GEOLOGICAL SURVEY

David L. Tippin (ASR-B); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
APMW-5	10/16/2007	Storage	12.6	0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	10/30/2007	Storage	13.4	0.002	0.004	<0.001	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	11/27/2007	Injection	12.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	12/04/2007	Injection	12.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	02/22/2008	Storage	12.6	<0.01	0.023	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
APMW-5	03/04/2008	Storage	12.8	0.011	0.012	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
APMW-5	03/18/2008	Storage	12.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
APMW-5	04/01/2008	Storage	12.2	0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	04/22/2008	Storage	12.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	04/29/2008	Recovery	12.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	05/06/2008	Recovery	12.3	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	05/13/2008	Recovery	12.3	0.002	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
APMW-5	05/23/2008	Recovery	12.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
APMW-5	06/03/2008	Recovery	12	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
APMW-5	06/23/2008	Storage	12.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
APMW-5	07/08/2008	Storage	13	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
APMW-5	07/29/2008	Storage	12.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
APMW-5	06/15/2010	Recovery	11.2	0.002	0.002	<0.001	0.002	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	06/29/2010	Storage	11.3	0.001	0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
APMW-5	07/06/2010	Storage	10.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001

REPORT OF INVESTIGATION NO. 112

David L. Tippin (ASR-B); Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
APMW-5	10/16/2007	Storage	<0.001	<0.02	0.075	<0.002	<0.3	<0.002	<0.2	0.118	<0.01	<0.3	<0.001	1.19
APMW-5	10/30/2007	Storage	<0.001	<0.02	0.043	<0.002	<0.3	0.002	<0.2	0.111	<0.01	<0.3	<0.001	1.28
APMW-5	11/27/2007	Injection	<0.001	<0.02	0.407	<0.002	<0.3	0.005	<0.2	0.551	<0.01	<0.3	<0.001	15.4
APMW-5	12/04/2007	Injection	<0.001	<0.02	0.448	<0.002	<0.3	0.005	<0.2	0.449	<0.01	<0.3	<0.001	14.8
APMW-5	02/22/2008	Storage	<0.01	<0.2	0.454	<0.02	<3	<0.02	<2	0.309	<0.1	<3	<0.01	16.7
APMW-5	03/04/2008	Storage	<0.01	<0.2	0.503	<0.02	<3	<0.02	<2	0.276	<0.1	<3	<0.01	13.9
APMW-5	03/18/2008	Storage	<0.01	<0.2	0.485	<0.02	<3	<0.02	<2	0.299	<0.1	<3	<0.01	14.2
APMW-5	04/01/2008	Storage	<0.001	<0.02	0.48	<0.002	<0.3	<0.002	<0.2	0.264	<0.01	<0.3	<0.001	14.3
APMW-5	04/22/2008	Storage	<0.001	<0.02	0.44	<0.002	<0.3	0.004	<0.2	0.239	<0.01	<0.3	<0.001	14.8
APMW-5	04/29/2008	Recovery	<0.001	<0.02	0.417	<0.002	<0.3	0.005	<0.2	0.254	<0.01	<0.3	<0.001	14.8
APMW-5	05/06/2008	Recovery	<0.001	<0.02	0.297	<0.002	<0.3	0.004	<0.2	0.282	<0.01	<0.3	<0.001	16.9
APMW-5	05/13/2008	Recovery	<0.001	<0.02	0.255	<0.002	<0.3	0.005	<0.2	0.287	0.1	<0.3	<0.001	14.4
APMW-5	05/23/2008	Recovery	<0.001	<0.02	0.219	<0.002	<0.3	0.015	<0.2	0.288	<0.01	<0.3	<0.001	12.5
APMW-5	06/03/2008	Recovery	<0.001	<0.02	0.192	<0.002	<0.3	0.008	<0.2	0.28	<0.01	<0.3	<0.001	11.5
APMW-5	06/23/2008	Storage	<0.001	<0.02	0.213	<0.002	<0.3	0.004	<0.2	0.242	<0.01	<0.3	<0.001	12.9
APMW-5	07/08/2008	Storage	<0.001	0.03	0.242	<0.002	<0.3	0.006	<0.2	0.227	0.1	<0.3	<0.001	12.9
APMW-5	07/29/2008	Storage	<0.001	0.02	0.243	<0.002	<0.3	0.007	<0.2	0.21	0.1	<0.3	<0.001	13.1
APMW-5	06/15/2010	Recovery	<0.001	<0.02	0.298	<0.002	<0.3	<0.002	<0.2	0.481	0.06	<0.3	<0.001	14.9
APMW-5	06/29/2010	Storage	<0.001	<0.02	0.245	<0.002	<0.3	<0.002	<0.2	0.487	0.41	<0.3	<0.001	13.1
APMW-5	07/06/2010	Storage	<0.001	<0.02	0.222	<0.002	<0.3	<0.002	<0.2	0.451	<0.01	<0.3	<0.001	12.9

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	08/28/2007	Recovery	9	<0.1	55200	65200	4	8300	4150	172000	2	1.1	1	<0.5	1.6	90	0.945	16.8	0.5	65	<0.01
ASR-1	09/04/2007	Recovery	10	<0.1	61000	68300	4	9400	4100	178000	2	1.2	0.8	<0.5	1.6	170	0.727	15.5	0.5	37.8	<0.01
ASR-1	09/07/2007	Recovery	10	<0.1	54200	68900	4	9400	4010	183000	2	1.2	0.7	<0.5	1.6	240	0.659	14.3	0.5	31.9	<0.01
ASR-1	09/11/2007	Recovery	<10	<1	48100	61400	<20	8300	3200	162000	<10	<1	<1	<5	2.2	280	0.561	13.2	<2	29.6	0.47
ASR-1	09/14/2007	Recovery	2	<0.1	68000	15800	147	3500	9530	63900	<1	0.9	0.3	<0.5	1.6	<10	0.464	3	11.2	209	0.02
ASR-1	09/25/2007	Injection	2	<0.1	70300	13600	100	3000	8170	62400	<1	0.9	0.2	<0.5	1.2	<10	0.339	3.1	10	201	0.03
ASR-1	10/16/2007	Injection	<10	<1	60900	13400	79	2800	6590	55400	<10	1.2	<1	<5	2.2	<100	0.563	3.5	16.6	209	<0.1
ASR-1	10/23/2007	Injection	<10	<1	61000	13400	81	2900	6490	56300	<10	<1	<1	<5	2	<100	0.568	3.2	17.8	206	<0.1
ASR-1	10/30/2007	Recovery	3	<0.1	66000	22400	21	4500	6440	82800	1	0.8	5.6	<0.5	2	20	0.448	5.4	10.9	113	0.01
ASR-1	11/13/2007	Recovery	7	<0.1	58700	46800	9	6800	5350	135000	2	0.9	4	<0.5	1.7	<10	0.713	10.9	4.7	98.5	<0.01
ASR-1	11/20/2007	Recovery	9	<0.1	59700	59400	11	8800	4640	160000	2	1.2	3.1	<0.5	2	30	0.833	13.6	14.3	93.1	<0.01
ASR-1	01/02/2008	Recovery	8	<0.1	57400	57300	8	7300	4930	159000	2	1.2	1.3	<0.5	2.8	70	1	13.4	3.7	162	<0.01
ASR-1	01/08/2008	Recovery	10	<0.1	54100	65100	5	9300	4100	170000	2	1.3	1	<0.5	1.8	<10	0.725	11.9	1.9	62.7	<0.01
ASR-1	01/15/2008	Recovery	11	<0.1	41700	70000	5	9700	3990	180000	2	1.3	0.6	<0.5	1.8	100	0.481	10.1	2	44.8	<0.01
ASR-1	01/22/2008	Recovery	11	<0.1	55100	72600	5	10700	3680	187000	2	1.4	0.3	<0.5	1.9	310	0.334	7.5	4.4	79.4	<0.01
ASR-1	01/29/2008	Recovery	11	<0.1	63600	75600	6	10900	3530	191000	2	1.3	0.1	<0.5	1.9	480	0.184	4.8	0.8	18	<0.01
ASR-1	09/16/2008	Storage	16	<1	38100	62400	21	7700	3580	165000	<10	1.4	<1	<5	4.4	330	0.88	18.6	37.5	733	<0.1
ASR-1	09/23/2008	Storage	17	<1	55300	69800	<20	9000	3210	163000	<10	<1	<1	<5	<1	<100	0.08	<3	<2	<5	<0.1
ASR-1	11/18/2008	Storage	16	<1	37900	64600	<20	8200	3160	161000	<10	1.3	<1	<5	2	570	0.265	8.2	230	542	<0.1
ASR-1	12/09/2008	Storage	<10	<1	59700	12700	37	2900	5750	50100	<10	1	<1	<5	<1	<100	0.529	<3	7.4	194	<0.1
ASR-1	12/16/2008	Storage	<10	<1	55900	12700	63	2900	5910	50500	<10	2	<1	<5	<1	<100	0.485	3.1	8.9	187	<0.1
ASR-1	05/12/2009	Storage	<10	<1	70700	31300	<20	5300	5520	105000	<10	1.2	<1	<5	1.4	200	0.209	3.4	8.5	49.4	<0.1
ASR-1	05/22/2009	Storage	17	<1	59300	73500	<20	9600	3620	203000	<10	1.2	<1	<5	2.6	280	<0.05	5.9	137	616	<0.1
ASR-1	08/04/2009	Injection	3	<0.1	74300	15400	126	3000	7850	61700	1	2	0.6	<0.5	1.6	20	0.168	2.3	11.1	154	0.04
ASR-1	10/13/2009	Injection	2	<0.1	59100	10900	95	2800	5560	46700	1	2	0.6	<0.5	0.6	20	0.099	2.2	5.3	284	0.02
ASR-1	05/25/2010	Injection	2	<0.1	69200	15900	89	2300	7320	62700	<1	0.8	0.1	<0.5	1.7	<10	1.45	3.8	26.9	172	0.03
ASR-1	09/07/2010	Recovery	3	<0.1	65500	17700	27	2900	7160	62500	<1	1.1	<0.1	<0.5	4.8	200	0.445	4.8	20.1	106	0.02
ASR-1	09/28/2010	Recovery	4	<0.1	57200	20100	15	3900	6490	68100	<1	0.8	<0.1	<0.5	0.7	60	<0.005	2	1.2	47.7	0.01
ASR-1	10/12/2010	Recovery	5	<0.1	58800	24700	34	4600	6190	80200	<1	0.9	<0.1	<0.5	0.9	80	<0.005	1.8	1.1	27.4	0.01
ASR-1	11/02/2010	Recovery	5	<0.1	59300	29300	16	6000	5780	94600	<1	1	<0.1	<0.5	0.8	120	<0.005	1.1	1.4	16.1	<0.01
ASR-1	12/01/2010	Recovery	6	<0.1	59700	35400	14	7000	5710	107000	1	1	<0.1	<0.5	1	160	<0.005	0.9	2.1	9.3	<0.01
ASR-1	12/28/2010	Recovery	7	<0.1	61700	41700	14	7900	5340	121000	1	1	<0.1	<0.5	1	170	<0.005	0.6	1.1	15.3	<0.01
ASR-1	01/19/2011	Recovery	7	<0.1	63000	50400	8	8600	4880	141000	1	1	<0.1	<0.5	1	200	<0.005	0.5	6.7	3.8	<0.01

REPORT OF INVESTIGATION NO. 112

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	08/28/2007	Recovery	0.11	50.2	0.5	453	3.57	10700	0.024	<0.01	0.00025	44.4	<0.01	<0.01	<0.2	0.09	<0.001	<0.1	0.09	<0.1	8
ASR-1	09/04/2007	Recovery	0.12	43.2	0.8	469	3.41	11300	0.024	<0.01	0.00025	33.3	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.05	<0.1	8
ASR-1	09/07/2007	Recovery	0.12	40.7	0.8	491	3.27	11300	0.025	<0.01	0.00025	31.4	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.04	<0.1	7
ASR-1	09/11/2007	Recovery	0.25	34	<2	453	3.18	13100	0.037	<0.1	<0.05	29.1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	11
ASR-1	09/14/2007	Recovery	0.07	0.59	0.2	290	4.47	2490	0.009	<0.01	0.00025	<0.1	<0.01	<0.01	<0.2	<0.01	0.001	<0.1	0.04	<0.1	7
ASR-1	09/25/2007	Injection	0.05	0.38	<0.2	295	4.32	2380	0.009	<0.01	0.00025	<0.1	<0.01	<0.01	<0.2	<0.01	0.001	<0.1	0.04	<0.1	22
ASR-1	10/16/2007	Injection	<0.1	0.63	<2	249	4.59	2320	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
ASR-1	10/23/2007	Injection	<0.1	1	<2	243	4.61	2390	<0.03	<0.1	<0.05	2.6	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
ASR-1	10/30/2007	Recovery	0.04	4.85	1.1	275	4.64	3580	0.011	<0.01	0.00025	27.7	<0.01	<0.01	<0.2	0.08	<0.001	<0.1	1.2	<0.1	17
ASR-1	11/13/2007	Recovery	0.06	26.5	1.4	385	4.57	7650	0.017	<0.01	0.00025	26.2	<0.01	<0.01	<0.2	0.08	<0.001	<0.1	0.31	<0.1	22
ASR-1	11/20/2007	Recovery	0.09	29.2	1.7	454	4.15	9650	0.027	<0.01	0.00025	22.9	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.14	<0.1	19
ASR-1	01/02/2008	Recovery	0.07	28.4	1.3	403	4.09	9180	0.024	<0.01	0.00025	39.1	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	0.29	<0.1	71
ASR-1	01/08/2008	Recovery	0.12	23.3	0.4	471	3.72	10600	0.027	0.06	0.00025	18.4	<0.01	<0.01	<0.2	0.05	<0.001	<0.1	0.07	<0.1	19
ASR-1	01/15/2008	Recovery	0.13	15.9	0.6	509	3.43	11300	0.029	0.03	0.00025	14.8	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	0.05	<0.1	22
ASR-1	01/22/2008	Recovery	0.13	15.5	0.4	537	3.09	11800	0.029	0.02	0.00025	13.2	<0.01	<0.01	<0.2	0.05	<0.001	<0.1	0.08	<0.1	20
ASR-1	01/29/2008	Recovery	0.11	11.8	0.5	553	2.81	12200	0.028	0.02	0.00025	11.7	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	0.05	<0.1	20
ASR-1	09/16/2008	Storage	<0.1	47.8	<2	292	3.37	12500	0.036	0.17	<0.05	37	<0.1	<0.1	<2	1.6	<0.01	<1	0.11	<1	26
ASR-1	09/23/2008	Storage	<0.1	4.17	<2	497	3.01	14200	<0.03	0.16	<0.05	8.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	12
ASR-1	11/18/2008	Storage	<0.1	57.6	<2	297	2.84	13300	0.032	0.18	<0.05	16.9	<0.1	<0.1	<2	0.23	<0.01	<1	<0.1	<1	15
ASR-1	12/09/2008	Storage	<0.1	0.34	<2	225	3.65	2270	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	11
ASR-1	12/16/2008	Storage	<0.1	0.32	<2	263	3.61	2290	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
ASR-1	05/12/2009	Storage	<0.1	28.4	<2	374	3.3	5940	<0.03	0.1	<0.05	18.6	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	29
ASR-1	05/22/2009	Storage	0.11	2.39	<2	556	2.85	14400	0.035	0.13	<0.05	4.2	<0.1	<0.1	<2	0.83	<0.01	<1	<0.1	<1	18
ASR-1	08/04/2009	Injection	0.03	0.53	0.6	298	4.23	2570	0.014	0.03	<0.005	<0.1	<0.01	<0.01	<0.2	0.01	0.002	<0.1	0.05	<0.1	12
ASR-1	10/13/2009	Injection	0.02	0.45	0.6	199	3.27	1570	0.008	0.02	<0.005	<0.1	<0.01	0.01	<0.2	0.01	0.002	<0.1	0.04	<0.1	4
ASR-1	05/25/2010	Injection	0.04	0.36	0.2	253	3.77	2130	0.012	0.02	0.016	0.6	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.03	<0.1	2
ASR-1	09/07/2010	Recovery	0.05	14.5	0.3	287	3.68	2270	0.017	0.02	<0.005	8.5	<0.01	<0.01	<0.2	0.03	0.002	0.8	0.05	<0.1	12
ASR-1	09/28/2010	Recovery	0.05	4.23	0.2	264	3.77	3020	0.017	0.02	<0.005	3.3	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.02	<0.1	2
ASR-1	10/12/2010	Recovery	0.05	2.9	0.3	287	3.87	3740	0.022	0.02	<0.005	4	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.01	<0.1	2
ASR-1	11/02/2010	Recovery	0.05	1.17	0.3	328	3.75	4620	0.025	0.02	<0.005	4.9	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.01	<0.1	2
ASR-1	12/01/2010	Recovery	0.05	0.77	0.5	378	3.85	5660	0.03	0.02	<0.005	4.4	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.01	<0.1	3
ASR-1	12/28/2010	Recovery	0.06	0.44	0.3	400	3.8	6860	0.035	0.02	<0.005	4.2	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.01	<0.1	3
ASR-1	01/19/2011	Recovery	0.06	0.38	0.3	436	3.71	8400	0.041	0.02	0.005	3.9	<0.01	<0.01	<0.2	0.01	<0.001	0.2	0.01	<0.1	3

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	08/28/2007	Recovery	0.037	30.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	09/04/2007	Recovery	0.033	29.3	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	09/07/2007	Recovery	0.034	29.2	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	09/11/2007	Recovery	0.032	28.2	0.016	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	09/14/2007	Recovery	0.075	49.5	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	09/25/2007	Injection	0.072	36.6	0.001	0.001	<0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	10/16/2007	Injection	0.076	30.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	10/23/2007	Injection	0.069	31.9	0.01	0.024	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	10/30/2007	Recovery	0.046	31.9	0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	11/13/2007	Recovery	0.049	31.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	11/20/2007	Recovery	0.041	30.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	01/02/2008	Recovery	0.046	35.7	0.002	0.002	<0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	01/08/2008	Recovery	0.037	28.8	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	01/15/2008	Recovery	0.035	29.3	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	01/22/2008	Recovery	0.03	28.2	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	01/29/2008	Recovery	0.028	27.5	0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	09/16/2008	Storage	0.035	31.7	0.02	0.039	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	09/23/2008	Storage	0.032	25.8	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	11/18/2008	Storage	0.026	28.4	0.015	0.022	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	12/09/2008	Storage	0.044	29.2	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	12/16/2008	Storage	0.044	30.8	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	05/12/2009	Storage	0.037	29.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	05/22/2009	Storage	0.026	26.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	08/04/2009	Injection	0.069	40.1	0.003	0.003	<0.001	0.006	0.001	<0.001	0.002	<0.001	0.001	<0.001	0.001	<0.001	0.003	<0.001
ASR-1	10/13/2009	Injection	0.065	34.4	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001
ASR-1	05/25/2010	Injection	0.059	31.9	0.005	0.007	<0.001	0.003	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
ASR-1	09/07/2010	Recovery	0.058	33.6	0.005	0.008	<0.001	0.003	0.001	0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001
ASR-1	09/28/2010	Recovery	0.043	30.2	0.001	0.001	<0.001	0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	10/12/2010	Recovery	0.042	31.5	0.01	0.013	<0.001	0.002	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	11/02/2010	Recovery	0.04	30.9	0.004	0.006	<0.001	0.003	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	12/01/2010	Recovery	0.04	32	0.004	0.006	<0.001	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	12/28/2010	Recovery	0.039	30.6	0.002	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	01/19/2011	Recovery	0.036	29.6	0.002	0.002	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Sulfide	Chloride
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L
ASR-1	08/28/2007	Recovery	<0.001	<0.001	<0.02	0.049	0.0001	<0.3	<0.002	<0.2	0.023	<0.01	<0.3	<0.001	21.1	560	<0.028	119
ASR-1	09/04/2007	Recovery	<0.001	<0.001	<0.02	0.04	0.0001	<0.3	<0.002	<0.2	0.015	<0.01	<0.3	<0.001	19.8	518	<0.028	122
ASR-1	09/07/2007	Recovery	<0.001	<0.001	<0.02	0.038	0.0001	<0.3	<0.002	<0.2	0.012	<0.01	<0.3	<0.001	18.5			
ASR-1	09/11/2007	Recovery	<0.01	<0.01	<0.2	0.037	<0.02	<3	<0.02	<2	<0.01	0.32	<3	<0.01	17.5	604	0.059	133
ASR-1	09/14/2007	Recovery	<0.001	<0.001	<0.02	0.004	0.0001	<0.3	<0.002	<0.2	0.022	0.03	<0.3	<0.001	0.203		0.059	
ASR-1	09/25/2007	Injection	<0.001	<0.001	<0.02	0.008	0.0001	<0.3	<0.002	<0.2	0.014	<0.01	<0.3	<0.001	0.226	206	<0.028	37.5
ASR-1	10/16/2007	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.299	199	<0.028	33.4
ASR-1	10/23/2007	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	0.011	<0.1	<3	<0.01	0.865	196	<0.028	33.3
ASR-1	10/30/2007	Recovery	<0.001	<0.001	<0.02	0.064	0.0001	<0.3	<0.002	<0.2	0.093	0.21	<0.3	<0.001	4.63	256	<0.028	41.2
ASR-1	11/13/2007	Recovery	<0.001	<0.001	<0.02	0.041	0.0001	<0.3	<0.002	<0.2	0.118	0.04	<0.3	<0.001	13.4	432	<0.028	76.5
ASR-1	11/20/2007	Recovery	<0.001	<0.001	<0.02	0.035	0.0001	<0.3	<0.002	<0.2	0.078	0.06	<0.3	<0.001	16.9	542	<0.028	108
ASR-1	01/02/2008	Recovery	<0.001	<0.001	<0.02	0.041	0.0001	<0.3	<0.002	<0.2	0.079	0.02	<0.3	<0.001	15.3	517	<0.028	94.9
ASR-1	01/08/2008	Recovery	<0.001	<0.001	<0.02	0.028	<0.002	<0.3	0.003	<0.2	0.039	<0.01	<0.3	<0.001	15.5	571	<0.028	125
ASR-1	01/15/2008	Recovery	0.001	<0.001	<0.02	0.024	<0.002	<0.3	<0.002	<0.2	0.018	<0.01	<0.3	0.002	13.5	595	0.045	119
ASR-1	01/22/2008	Recovery	<0.001	<0.001	<0.02	0.021	<0.002	<0.3	<0.002	<0.2	0.029	0.02	<0.3	0.001	9.66	614	0.1	123
ASR-1	01/29/2008	Recovery	0.001	<0.001	0.02	0.018	<0.002	<0.3	<0.002	<0.2	0.005	<0.01	<0.3	0.001	7.37	642	0.281	137
ASR-1	09/16/2008	Storage	<0.01	<0.01	<0.2	0.017	<0.02	<3	<0.02	<2	1.33	2.46	<3	<0.01	7.37	547	<0.028	59.4
ASR-1	09/23/2008	Storage	<0.01	<0.01	<0.2	0.015	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	4.51	596	0.409	138
ASR-1	11/18/2008	Storage	<0.01	<0.01	<0.2	0.011	<0.02	<3	<0.02	<2	0.052	2.39	<3	<0.01	5.31	593	<0.028	81.5
ASR-1	12/09/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.67	216	<0.028	46.8
ASR-1	12/16/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.617	202	<0.028	45.9
ASR-1	05/12/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.15	<3	<0.01	2.18	345	<0.028	71.8
ASR-1	05/22/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	0.067	7.02	<3	<0.01	2.2	628	1	133
ASR-1	08/04/2009	Injection	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	0.013	0.02	<0.3	<0.001	0.133	218	<0.028	45.2
ASR-1	10/13/2009	Injection	<0.001	<0.001	<0.02	0.038	<0.002	<0.3	<0.002	<0.2	0.009	0.03	<0.3	<0.001	0.155	177	<0.028	38.5
ASR-1	05/25/2010	Injection	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	0.005	0.05	<0.3	<0.001	0.535	246	<0.028	50.3
ASR-1	09/07/2010	Recovery	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	0.002	1.44	<0.3	<0.001	0.396	240	<0.028	46.1
ASR-1	09/28/2010	Recovery	<0.001	<0.001	<0.02	0.016	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	1.14	261	<0.028	47.6
ASR-1	10/12/2010	Recovery	<0.001	<0.001	0.02	0.016	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	0.001	1.04	291	0.35	57.5
ASR-1	11/02/2010	Recovery	<0.001	<0.001	<0.02	0.017	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	0.001	0.773	339	0.22	73
ASR-1	12/01/2010	Recovery	<0.001	<0.001	<0.02	0.018	<0.002	<0.3	<0.002	<0.2	<0.001	0.49	<0.3	<0.001	0.653	352	0.3	79.1
ASR-1	12/28/2010	Recovery	<0.001	<0.001	<0.02	0.015	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.508	400	0.75	90.1
ASR-1	01/19/2011	Recovery	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.47	<0.3	<0.001	0.504	467	0.97	106

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Temp	pH	ORP	Conductivity	DO	Turbidity
			°C	std. units	mV	µS/cm	mg/L	NTU
ASR-1	08/28/2007	Recovery	26.4	7.33	-172.7	1515	0.79	0.53
ASR-1	09/04/2007	Recovery	26.48	7.24	-275.7	1625	0.07	0.43
ASR-1	09/07/2007	Recovery	26.47	7.31	-260.3	1568	0.11	0.5
ASR-1	09/11/2007	Recovery	26.59	7.24	-246.1	1600	0.15	0.78
ASR-1	09/14/2007	Recovery	26.34	7.27	-231.1	1532	0.11	0.76
ASR-1	09/25/2007	Injection	28.47	7.94	-73.4	777	8	0.67
ASR-1	10/16/2007	Injection	27.74	7.91	380.6	777	7.78	0.48
ASR-1	10/23/2007	Injection	28.26	7.89	331.1	785	7.41	1.07
ASR-1	10/30/2007	Recovery	28.02	7.62	-172.2	930	0.08	0.25
ASR-1	11/13/2007	Recovery	27.55	7.3	-150.2	1279	0.09	0.51
ASR-1	11/20/2007	Recovery	26.69	7.22	-263	1336	0.09	0.6
ASR-1	01/02/2008	Recovery	26.82	7.31	-142.6	1391	0.11	0.51
ASR-1	01/08/2008	Recovery	26.82	7.27	-137.1	1657	0.22	0.62
ASR-1	01/15/2008	Recovery	26.5	7.27	-161.9	1733	0.07	0.13
ASR-1	01/22/2008	Recovery	26.65	7.18	-161.2	1656	0.11	0.1
ASR-1	01/29/2008	Recovery	26.41	7.21	-173.9	1699	0.17	0.12
ASR-1	09/16/2008	Storage	26.41	7.16	-143.2	1381	0.16	0.77
ASR-1	09/23/2008	Storage	26.4	7.28	-82.5	1717	0.16	0.19
ASR-1	11/18/2008	Storage	26.3	7.3	-50.8	1441	0.12	1.12
ASR-1	12/09/2008	Storage	18.68	7.64	67.1	808	0.23	0.86
ASR-1	12/16/2008	Storage	19.64	7.79	266.1	789	3.05	0.55
ASR-1	05/12/2009	Storage	21.47	7.53	-27	1115	0.06	0.63
ASR-1	05/22/2009	Storage	25.85	7.02	-194	1702	0.2	0.2
ASR-1	08/04/2009	Injection	30.43	8.05	92.1	819	0.05	0.07
ASR-1	10/13/2009	Injection	29.67	8.1	108	714	0.06	0.09
ASR-1	05/25/2010	Injection	28.39	8.09	208.7	833	0.19	0.07
ASR-1	09/07/2010	Recovery	27.6	7.72	-130.2	861	0.14	0.17
ASR-1	09/28/2010	Recovery	23.85	7.77	-99.8	924	0.11	0.06
ASR-1	10/12/2010	Recovery	24	7.8	-113	931	0.14	0.15
ASR-1	11/02/2010	Recovery	24.8	7.7	-134	994	0.12	0.13
ASR-1	12/01/2010	Recovery	24.9	7.6	-136	1126	0.26	0.15
ASR-1	12/28/2010	Recovery	25.5	7.7	-217	1306	0.16	0.15
ASR-1	01/19/2011	Recovery	25.9	7.6	-200	1457	0.19	0.1

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Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	02/02/2011	Recovery	8	<0.1	61600	56900	7	9200	4580	155000	1	1.1	<0.1	<0.5	1	200	<0.005	0.4	8.9	4	<0.01
ASR-1	02/15/2011	Recovery	7	<0.1	63500	63200	8	9400	4120	170000	1	1.1	<0.1	<0.5	1	200	<0.005	0.5	15.4	3.6	<0.01
SZMW-1	08/14/2007	Storage	<10	<1	22200	51300	<20	8500	2590	136000	<10	<1	<1	<5	1.4	<100	<0.05	<3	<2	<5	0.48
SZMW-1	08/21/2007	Recovery	9	<0.1	30500	61200	<2	9300	3230	161000	2	1.1	<0.1	<0.5	0.5	<10	<0.005	<0.3	<0.2	1.4	<0.01
SZMW-1	08/28/2007	Recovery	9	<0.1	23000	65000	<2	9900	3050	168000	2	1.1	<0.1	<0.5	0.4	<10	<0.005	<0.3	<0.2	1.3	<0.01
SZMW-1	09/04/2007	Recovery	9	<0.1	24200	66700	<2	10200	2950	168000	2	1.2	0.05	<0.5	0.4	<10	<0.005	<0.3	<0.2	1.3	<0.01
SZMW-1	09/07/2007	Recovery	<10	<1	21600	57600	<20	9200	2550	150000	<10	<1	<1	<5	1	<100	<0.05	<3	<2	<5	0.38
SZMW-1	09/11/2007	Recovery	10	<0.1	26800	68700	<2	12200	3040	175000	2	1.2	<0.1	<0.5	0.4	<10	0.011	<0.3	<0.2	1.4	<0.01
SZMW-1	09/14/2007	Recovery	<10	<1	22100	59800	<20	9700	2630	157000	<10	<1	<1	<5	<1	<100	<0.05	<3	10.8	<5	0.33
SZMW-1	09/25/2007	Injection	7	<0.1	46200	46900	<2	8200	3350	127000	2	0.9	0.1	<0.5	0.4	20	0.017	0.4	0.4	4.8	<0.01
SZMW-1	10/09/2007	Injection	<10	<1	43500	30900	<20	6200	3380	86700	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	10/23/2007	Injection	<10	<1	50000	25100	<20	5400	4020	73000	<10	1.3	<1	<5	3.6	310	<0.05	<3	<2	<5	<0.1
SZMW-1	10/30/2007	Recovery	8	<0.1	43500	54000	<2	8400	3290	144000	2	0.9	<0.1	<0.5	0.3	20	0.017	0.3	<0.2	1.1	<0.01
SZMW-1	11/06/2007	Recovery	8	<0.1	28200	62800	3	8900	2990	162000	2	1.2	<0.1	<0.5	0.4	<10	0.011	<0.3	9	5.5	<0.01
SZMW-1	11/13/2007	Recovery	9	<0.1	27800	65800	<2	10100	2740	169000	2	1.2	<0.1	<0.5	0.4	40	0.019	<0.3	<0.2	1.4	<0.01
SZMW-1	11/20/2007	Recovery	9	<0.1	23900	68700	<2	10100	2780	176000	2	1.2	<0.1	<0.5	0.4	<10	0.009	<0.3	<0.2	6.7	<0.01
SZMW-1	11/29/2007	Storage	9	<0.1	28600	64600	<2	10600	2820	167000	2	1.2	<0.1	<0.5	0.5	20	0.015	<0.3	<0.2	1.7	<0.01
SZMW-1	12/11/2007	Storage	9	<0.1	31800	65800	<2	10700	2930	169000	2	1.2	<0.1	<0.5	0.5	<10	0.013	<0.3	<0.2	1.3	<0.01
SZMW-1	12/27/2007	Storage	9	<0.1	26000	66000	<2	10100	2930	171000	2	1.1	<0.1	<0.5	0.5	50	0.031	<0.3	<0.2	1.2	<0.01
SZMW-1	01/02/2008	Recovery	10	<0.1	22400	68600	<2	10300	2820	178000	2	1.2	<0.1	<0.5	0.4	30	0.022	<0.3	0.6	1.4	<0.01
SZMW-1	01/08/2008	Recovery	10	<0.1	24600	67300	<2	10100	2660	170000	2	1.2	<0.1	<0.5	0.3	<10	<0.005	<0.3	<0.2	0.7	<0.01
SZMW-1	01/15/2008	Recovery	10	<0.1	25000	68800	2	10700	2750	171000	2	1.3	<0.1	<0.5	0.4	<10	<0.005	<0.3	<0.2	7	<0.01
SZMW-1	01/22/2008	Recovery	11	<0.1	22600	70100	3	11000	2780	174000	2	1.2	<0.1	<0.5	0.5	<10	<0.005	<0.3	24.6	3	<0.01
SZMW-1	01/29/2008	Recovery	10	<0.1	21700	69800	<2	10000	2790	175000	2	1	<0.1	<0.5	0.3	<10	<0.005	<0.3	<0.2	0.6	<0.01
SZMW-1	02/05/2008	Storage	10	<0.1	22000	69100	2	10600	2750	172000	2	1.1	<0.1	<0.5	0.4	<10	<0.005	<0.3	0.3	2.8	<0.01
SZMW-1	02/19/2008	Storage	10	<0.1	24800	69400	<2	10600	2850	172000	2	1.2	<0.1	<0.5	0.4	<10	<0.005	<0.3	12.7	1.7	<0.01
SZMW-1	03/04/2008	Storage	10	<0.1	22500	69700	<2	10400	2760	171000	2	1.1	<0.1	<0.5	0.4	<10	<0.005	<0.3	0.3	1	<0.01
SZMW-1	03/18/2008	Storage	10	<0.1	22600	69400	2	10700	2730	173000	2	1.2	<0.1	<0.5	0.4	<10	<0.005	<0.3	<0.2	0.8	<0.01
SZMW-1	04/01/2008	Storage	10	<0.1	23200	68800	<2	10600	2860	172000	2	1.1	<0.1	<0.5	0.4	<10	<0.005	<0.3	0.2	0.8	<0.01
SZMW-1	04/15/2008	Storage	9	<0.1	24200	68700	<2	10200	2800	175000	2	1.2	<0.1	<0.5	0.4	<10	<0.005	<0.3	<0.2	1	<0.01
SZMW-1	04/29/2008	Storage	10	<0.1	25400	68900	<2	11600	2820	174000	2	1.4	<0.1	<0.5	0.5	<10	<0.005	<0.3	<0.2	1.6	<0.01
SZMW-1	05/13/2008	Storage	15	<1	22400	62100	<20	9700	2540	157000	<10	1.3	<1	<5	<1	<100	<0.05	<3	14.7	<5	<0.1
SZMW-1	05/27/2008	Storage	15	<1	22800	63300	24	9800	2620	161000	<10	1.4	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	02/02/2011	Recovery	0.07	0.34	0.6	457	3.64	9560	0.046	0.02	<0.005	3.6	<0.01	<0.01	<0.2	0.02	<0.001	0.3	0.01	<0.1	2
ASR-1	02/15/2011	Recovery	0.07	0.32	0.6	475	3.52	10500	0.049	0.02	<0.005	3.1	<0.01	<0.01	<0.2	0.01	<0.001	0.6	0.01	<0.1	2
SZMW-1	08/14/2007	Storage	0.26	3.74	<2	149	2.66	12500	<0.03	<0.1	<0.05	23.9	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	14
SZMW-1	08/21/2007	Recovery	0.1	3.64	0.2	147	2.69	11100	0.022	<0.01	0.00025	22.6	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01	<0.1	5
SZMW-1	08/28/2007	Recovery	0.08	4.04	0.2	146	2.68	11700	0.023	<0.01	0.00025	17	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	6
SZMW-1	09/04/2007	Recovery	0.09	3.33	0.2	145	2.71	11900	0.024	<0.01	0.00025	13.4	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	6
SZMW-1	09/07/2007	Recovery	0.21	2.85	<2	141	2.69	13800	<0.03	<0.1	<0.05	14.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	10
SZMW-1	09/11/2007	Recovery	0.1	3.04	0.4	155	2.77	11900	0.029	<0.01	0.00025	12.8	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	6
SZMW-1	09/14/2007	Recovery	0.25	2.49	<2	142	2.67	14000	0.032	<0.1	<0.05	13	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	15
SZMW-1	09/25/2007	Injection	0.07	4.13	0.5	231	3.01	8730	0.022	<0.01	0.00025	19.9	<0.01	<0.01	<0.2	0.05	<0.001	<0.1	0.56	<0.1	13
SZMW-1	10/09/2007	Injection	<0.1	2.31	<2	228	3.15	7820	<0.03	<0.1	<0.05	17.2	<0.1	<0.1	<2	<0.1	<0.01	<1	1.34	<1	<10
SZMW-1	10/23/2007	Injection	<0.1	2.17	<2	236	3.48	6250	<0.03	<0.1	<0.05	18.4	<0.1	<0.1	<2	<0.1	<0.01	<1	1.45	<1	<10
SZMW-1	10/30/2007	Recovery	0.07	4.88	0.3	191	2.93	9950	0.022	<0.01	0.00025	15.9	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	0.18	<0.1	13
SZMW-1	11/06/2007	Recovery	0.08	2.54	0.4	171	2.9	11400	0.028	<0.01	0.00025	12.6	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	0.05	<0.1	14
SZMW-1	11/13/2007	Recovery	0.08	2.26	0.4	158	2.78	11700	0.031	<0.01	0.00025	11.4	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.03	<0.1	16
SZMW-1	11/20/2007	Recovery	0.09	1.77	0.3	153	2.86	11900	0.029	<0.01	0.00025	10.4	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.02	<0.1	15
SZMW-1	11/29/2007	Storage	0.08	2.97	0.4	161	2.81	11600	0.029	<0.01	0.00025	11.5	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	0.03	<0.1	15
SZMW-1	12/11/2007	Storage	0.08	3.18	0.5	158	2.86	11700	0.032	<0.01	0.00025	11.8	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	14
SZMW-1	12/27/2007	Storage	0.09	2.6	0.4	151	2.6	11700	0.026	<0.01	0.00025	11	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	14
SZMW-1	01/02/2008	Recovery	0.09	2.63	0.3	150	2.69	12100	0.027	<0.01	0.00025	10.1	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.01	<0.1	16
SZMW-1	01/08/2008	Recovery	0.08	1.77	<0.2	142	2.86	11900	0.03	0.04	0.00025	9.9	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.01	<0.1	12
SZMW-1	01/15/2008	Recovery	0.09	1.44	<0.2	143	2.8	12000	0.029	0.03	0.00025	8.9	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	12
SZMW-1	01/22/2008	Recovery	0.09	1.24	0.3	149	2.64	12200	0.029	0.05	0.00025	7.5	<0.01	<0.01	<0.2	0.02	<0.001	0.1	0.02	<0.1	14
SZMW-1	01/29/2008	Recovery	0.08	0.94	<0.2	144	2.54	12200	0.022	0.02	0.00025	7.2	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	13
SZMW-1	02/05/2008	Storage	0.08	1.42	0.3	145	2.5	11900	0.024	0.02	0.00025	7.4	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.01	<0.1	13
SZMW-1	02/19/2008	Storage	0.08	1.45	<0.2	140	2.75	11900	0.027	0.01	0.00025	5.9	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	<0.1	13
SZMW-1	03/04/2008	Storage	0.08	1.49	<0.2	146	2.43	11700	0.024	<0.01	0.00025	6.4	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	13
SZMW-1	03/18/2008	Storage	0.08	1.47	0.3	144	2.54	11900	0.025	<0.01	0.00025	6.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	13
SZMW-1	04/01/2008	Storage	0.08	1.39	0.3	143	2.62	12000	0.024	<0.01	0.00025	5.9	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	<0.1	13
SZMW-1	04/15/2008	Storage	0.08	1.31	<0.2	133	2.64	12100	0.025	<0.01	0.00025	5.5	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	12
SZMW-1	04/29/2008	Storage	0.1	1.34	0.3	142	2.75	12200	0.028	0.01	0.00025	5.7	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	<0.1	13
SZMW-1	05/13/2008	Storage	<0.1	1.75	<2	144	2.68	14000	<0.03	0.1	<0.05	6.1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	18
SZMW-1	05/27/2008	Storage	<0.1	1.12	<2	145	2.81	14000	0.05	0.12	<0.05	6.1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17

REPORT OF INVESTIGATION NO. 112

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	02/02/2011	Recovery	0.032	29.5	0.002	0.003	<0.001	0.002	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	02/15/2011	Recovery	0.034	30	0.003	0.004	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/14/2007	Storage	0.013	19.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	08/21/2007	Recovery	0.013	19.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/28/2007	Recovery	0.017	18.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/04/2007	Recovery	0.017	19.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/07/2007	Recovery	0.019	18.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	09/11/2007	Recovery	0.016	18.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/14/2007	Recovery	0.014	18.8	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	09/25/2007	Injection	0.015	17.6	0.003	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/09/2007	Injection	0.014	14.8	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	10/23/2007	Injection	0.015	13.5	0.019	0.043	<0.01	0.018	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	10/30/2007	Recovery	0.016	18	0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/06/2007	Recovery	0.015	19.1	0.004	0.008	0.001	0.005	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/13/2007	Recovery	0.016	18.8	0.002	0.003	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/20/2007	Recovery	0.015	19.2	<0.001	0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/29/2007	Storage	0.011	19.5	0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/11/2007	Storage	0.012	19.8	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/27/2007	Storage	0.013	18.9	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/02/2008	Recovery	0.016	18.7	<0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/08/2008	Recovery	0.019	18.5	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/15/2008	Recovery	0.019	18.5	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/22/2008	Recovery	0.02	17.9	0.002	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/29/2008	Recovery	0.02	18.6	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/05/2008	Storage	0.016	18.1	<0.001	0.003	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/19/2008	Storage	0.014	19.6	0.002	0.002	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/04/2008	Storage	0.014	17.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/18/2008	Storage	0.014	18.6	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/01/2008	Storage	0.014	19.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/15/2008	Storage	0.013	19.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/29/2008	Storage	0.014	20.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/13/2008	Storage	0.013	18.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	05/27/2008	Storage	0.014	19.3	0.023	0.032	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Sulfide	Chloride
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L
ASR-1	02/02/2011	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	0.65	<0.3	<0.001	0.513	540	1.05	123
ASR-1	02/15/2011	Recovery	<0.001	<0.001	<0.02	0.009	<0.002	<0.3	<0.002	<0.2	<0.001	1.2	<0.3	0.002	0.516	583	1.28	132
SZMW-1	08/14/2007	Storage	<0.01	<0.01	<0.2	0.036	<0.02	<3	<0.02	<2	<0.01	0.19	<3	<0.01	2.25	562		
SZMW-1	08/21/2007	Recovery	<0.001	<0.001	0.1	0.034	0.0001	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	2.22	565	1.42	33.4
SZMW-1	08/28/2007	Recovery	<0.001	<0.001	0.07	0.024	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.89	602	0.624	34.3
SZMW-1	09/04/2007	Recovery	<0.001	<0.001	0.07	0.021	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	3.04	530	1.68	34.4
SZMW-1	09/07/2007	Recovery	<0.01	<0.01	<0.2	0.023	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	2.98			
SZMW-1	09/11/2007	Recovery	<0.001	<0.001	0.06	0.019	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.9	613	2.47	35.4
SZMW-1	09/14/2007	Recovery	<0.01	<0.01	<0.2	0.019	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	2.91		2.39	
SZMW-1	09/25/2007	Injection	<0.001	<0.001	0.07	0.032	0.0001	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	3.42	428	0.484	37.7
SZMW-1	10/09/2007	Injection	<0.01	<0.01	<0.2	0.036	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	5.76	315	0.108	41.2
SZMW-1	10/23/2007	Injection	<0.01	<0.01	<0.2	0.036	<0.02	<3	<0.02	<2	<0.01	0.54	<3	<0.01	7.03	266	<0.028	33.1
SZMW-1	10/30/2007	Recovery	<0.001	<0.001	0.07	0.028	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	7.89	483	1.01	30.2
SZMW-1	11/06/2007	Recovery	<0.001	<0.001	0.06	0.022	0.0001	<0.3	<0.002	<0.2	<0.001	0.62	<0.3	0.001	6.19	543	1.5	35.9
SZMW-1	11/13/2007	Recovery	<0.001	<0.001	0.05	0.021	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	5.53	601	2.03	29
SZMW-1	11/20/2007	Recovery	<0.001	<0.001	0.05	0.018	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	5	626	2.02	35.7
SZMW-1	11/29/2007	Storage	<0.001	<0.001	0.05	0.02	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	4.07			
SZMW-1	12/11/2007	Storage	<0.001	<0.001	0.06	0.02	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	3.57	652	<0.028	33
SZMW-1	12/27/2007	Storage	<0.001	<0.001	0.06	0.018	0.0001	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	3.2	587	1.25	35.4
SZMW-1	01/02/2008	Recovery	<0.001	<0.001	0.05	0.016	0.0001	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	3.75	617	2.41	34.6
SZMW-1	01/08/2008	Recovery	<0.001	<0.001	0.05	0.015	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.001	3.83	609	2.49	35.1
SZMW-1	01/15/2008	Recovery	<0.001	<0.001	0.05	0.014	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.001	3.74	617	2.57	28.7
SZMW-1	01/22/2008	Recovery	<0.001	<0.001	0.04	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.9	<0.3	<0.001	3.67	616	2.58	26.7
SZMW-1	01/29/2008	Recovery	<0.001	<0.001	0.04	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	3.57	630	2.53	34.4
SZMW-1	02/05/2008	Storage	<0.001	<0.001	0.04	0.011	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.98	617		33.4
SZMW-1	02/19/2008	Storage	<0.001	<0.001	0.04	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	2.57	<0.3	<0.001	2.93	586		
SZMW-1	03/04/2008	Storage	<0.001	<0.001	0.05	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.63	604		36.4
SZMW-1	03/18/2008	Storage	<0.001	<0.001	0.05	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.59	599		
SZMW-1	04/01/2008	Storage	<0.001	<0.001	0.05	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.5	564		44.8
SZMW-1	04/15/2008	Storage	<0.001	<0.001	0.05	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.39	605		
SZMW-1	04/29/2008	Storage	<0.001	<0.001	0.06	0.011	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	2.51	601		
SZMW-1	05/13/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.57	<3	<0.01	2.38	509		
SZMW-1	05/27/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.27	<3	<0.01	2.17	581		

REPORT OF INVESTIGATION NO. 112

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Temp	pH	ORP	Conductivity	DO	Turbidity
			°C	std. units	mV	µS/cm	mg/L	NTU
ASR-1	02/02/2011	Recovery	26.1	7.5	-217	1466	0.18	0.11
ASR-1	02/15/2011	Recovery	25.9	7.5	-227	1807	0.2	0.07
SZMW-1	08/14/2007	Storage	26.55	7.36	-258.7	1311	0.15	0.68
SZMW-1	08/21/2007	Recovery	26.54	7.35	-285.8	1397	0.12	0.61
SZMW-1	08/28/2007	Recovery	26.71	7.33	-254.7	1308	0.09	0.73
SZMW-1	09/04/2007	Recovery	26.67	7.01	-231	1382	0.08	0.64
SZMW-1	09/07/2007	Recovery	26.77	7.36	-259.2	1334	0.09	0.65
SZMW-1	09/11/2007	Recovery	26.84	7.25	-287.8	1335	0.1	0.72
SZMW-1	09/14/2007	Recovery	26.55	7.28	-270.5	1281	0.13	0.79
SZMW-1	09/25/2007	Injection	26.64	7.4	-293.1	1112	0.08	0.67
SZMW-1	10/09/2007	Injection	27.28	7.47	-254	1017	0.31	0.7
SZMW-1	10/23/2007	Injection	27.63	7.59	-172.3	914	0.12	2.99
SZMW-1	10/30/2007	Recovery	26.85	7.31	-256.2	1240	0.12	0.73
SZMW-1	11/06/2007	Recovery	26.72	7.28	-277.8	1285	0.11	0.42
SZMW-1	11/13/2007	Recovery	26.68	7.17	-254.6	1333	0.11	0.46
SZMW-1	11/20/2007	Recovery	27.16	7.28	-191.4	1455	0.08	0.44
SZMW-1	11/29/2007	Storage						
SZMW-1	12/11/2007	Storage	26.52	7.27	-263.2	1312	0.12	0.67
SZMW-1	12/27/2007	Storage	26.43	7.2	-252.8	1313	0.11	0.67
SZMW-1	01/02/2008	Recovery	26.02	7.25	-268.4	1342	0.1	0.5
SZMW-1	01/08/2008	Recovery	26.35	7.28	-244.1	1414	0.11	0.36
SZMW-1	01/15/2008	Recovery	26.29	7.27	-254.1	1462	0.06	0.43
SZMW-1	01/22/2008	Recovery	26.31	7.23	-244.5	1361	0.08	0.34
SZMW-1	01/29/2008	Recovery	26.41	7.23	-246.8	1362	0.12	0.2
SZMW-1	02/05/2008	Storage	26.35	7.24	-238.5	1351	0.12	0.23
SZMW-1	02/19/2008	Storage	26.24	7.28	-245.2	1353	0.13	0.18
SZMW-1	03/04/2008	Storage	26.42	7.25	-230.1	1372	0.17	0.17
SZMW-1	03/18/2008	Storage	26.31	7.21	-221.3	1378	0.15	0.2
SZMW-1	04/01/2008	Storage	26.37	7.26	-197.2	1364	0.14	0.21
SZMW-1	04/15/2008	Storage	26.26	7.16	-180.1	1311	0.15	0.15
SZMW-1	04/29/2008	Storage	26.41	7.15	-177.1	1379	0.12	0.48
SZMW-1	05/13/2008	Storage	26.4	7.31	-167.3	1226	0.11	0.27
SZMW-1	05/27/2008	Storage	26.35	7.21	-175.7	1343	0.05	0.26

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	06/17/2008	Storage	19	<1	22800	63200	29	9900	2600	160000	<10	1.7	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	07/01/2008	Storage	14	<1	22300	61800	<20	9800	2510	158000	<10	1.5	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	07/15/2008	Storage	15	<1	22700	63500	<20	9800	2560	156000	<10	1.4	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	07/29/2008	Storage	14	<1	22200	63200	<20	9700	2500	153000	<10	1.2	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	08/12/2008	Storage	15	<1	22700	64300	<20	10000	2620	161000	<10	1.1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	08/26/2008	Storage	16	<1	22600	64600	<20	10200	2580	163000	<10	1.1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	09/09/2008	Storage	15	<1	21600	61200	<20	9500	2490	152000	<10	1.1	<1	<5	<1	<100	<0.05	<3	828	19	<0.1
SZMW-1	09/16/2008	Storage	15	<1	21000	61000	<20	9600	2390	153000	<10	1.1	<1	<5	<1	<100	<0.05	<3	28.7	8.3	<0.1
SZMW-1	09/23/2008	Storage	15	<1	21200	62200	24	9600	2520	151000	<10	2	<1	<5	<1	<100	<0.05	<3	2.4	10.7	<0.1
SZMW-1	09/30/2008	Storage	14	<1	21600	61700	<20	9500	2500	156000	<10	1.6	<1	<5	<1	<100	<0.05	<3	34.3	31.7	<0.1
SZMW-1	10/14/2008	Storage	17	<1	21400	60500	<20	9800	2440	154000	<10	1.2	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	10/21/2008	Storage	15	<1	21100	61600	<20	9700	2420	151000	<10	1.2	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	11/04/2008	Storage	16	<1	22200	64400	27	9900	2530	160000	<10	1.5	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	11/18/2008	Storage	15	<1	21000	62700	<20	9800	2520	155000	<10	1.7	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	12/09/2008	Storage	13	<1	25900	53500	<20	8600	2560	134000	<10	1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	12/23/2008	Storage	13	<1	25100	54300	<20	8900	2470	137000	<10	1.3	<1	<5	<1	<100	0.086	<3	<2	11.2	<0.1
SZMW-1	01/06/2009	Storage	14	<1	25900	60000	<20	9700	2860	174000	<10	1.2	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	01/20/2009	Storage	15	<1	26000	62200	<20	9900	2780	174000	<10	1.2	<1	<5	<1	<100	<0.05	<3	3.1	7.9	<0.1
SZMW-1	02/10/2009	Storage	16	<1	24000	63300	<20	9700	2780	179000	<10	1.2	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	03/05/2009	Storage	16	<1	26400	66400	<20	10200	2900	182000	<10	1.2	<1	<5	<1	<100	<0.05	<3	9.4	15.9	<0.1
SZMW-1	03/24/2009	Storage	16	<1	27800	65800	<20	10300	2910	186000	<10	1.5	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	04/15/2009	Storage	16	<1	27200	66200	<20	10000	2830	181000	<10	1.3	<1	<5	<1	<100	<0.05	<3	5.3	20.8	<0.1
SZMW-1	05/05/2009	Storage	16	<1	27400	66000	<20	10500	3020	185000	<10	1.3	<1	<5	<1	<100	0.531	<3	<2	<5	<0.1
SZMW-1	05/12/2009	Storage	15	<1	26500	64200	55	10000	2900	182000	<10	1.5	<1	<5	<1	<100	<0.05	<3	<2	12	<0.1
SZMW-1	05/22/2009	Storage	16	<1	23700	68300	23	10200	2740	186000	<10	1.3	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	06/02/2009	Storage	16	<1	22800	66000	<20	10000	2670	182000	<10	1.5	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	06/23/2009	Storage	16	<1	22800	66100	<20	10400	2740	189000	<10	1.4	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-1	07/14/2009	Storage	12	<0.1	23000	69300	<2	9800	2670	168000	4	2.6	0.1	<0.5	0.5	<10	0.013	<0.3	<0.2	4.4	<0.01
SZMW-1	07/24/2009	Storage	13	<0.1	23500	69600	<2	10100	2730	175000	4	2.5	0.1	<0.5	0.5	<10	<0.005	<0.3	0.2	5.6	<0.01
SZMW-1	08/04/2009	Injection	11	<0.1	34600	58800	<2	8900	3110	146000	3	2.2	0.1	<0.5	0.5	<10	<0.005	<0.3	3.6	13.8	<0.01
SZMW-1	09/15/2009	Injection	5	<0.1	59400	30400	4	6500	3890	85800	3	1.8	0.2	1	0.4	<10	0.009	<0.3	0.3	11.2	0.01
SZMW-1	10/13/2009	Injection	4	<0.1	50400	20100	<2	5300	4100	59800	2	1.4	0.2	<0.5	0.2	<10	0.009	<0.3	<0.2	5.9	0.01
SZMW-1	11/03/2009	Injection	2	<0.1	52200	18800	3	5100	3760	60400	<1	0.5	0.1	<0.5	0.1	<10	<0.005	<0.3	0.9	2.1	0.01

REPORT OF INVESTIGATION NO. 112

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	06/17/2008	Storage	<0.1	1.41	<2	146	2.73	14000	0.03	0.11	<0.05	5.7	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	16
SZMW-1	07/01/2008	Storage	<0.1	1.25	<2	137	2.61	13900	<0.03	<0.1	<0.05	5.9	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	16
SZMW-1	07/15/2008	Storage	<0.1	1.4	<2	137	2.68	14000	<0.03	<0.1	<0.05	5.6	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
SZMW-1	07/29/2008	Storage	<0.1	1.12	<2	132	2.71	14200	<0.03	<0.1	<0.05	5.6	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	18
SZMW-1	08/12/2008	Storage	<0.1	1.33	<2	133	2.81	14100	<0.03	<0.1	<0.05	5.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
SZMW-1	08/26/2008	Storage	<0.1	1.55	<2	133	2.77	14500	0.041	0.11	<0.05	5.3	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
SZMW-1	09/09/2008	Storage	<0.1	6.97	<2	133	2.76	14100	<0.03	<0.1	<0.05	45.2	<0.1	<0.1	<2	<0.1	<0.01	<1	1.24	<1	19
SZMW-1	09/16/2008	Storage	<0.1	1.49	<2	124	2.72	14200	<0.03	0.43	<0.05	5.4	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
SZMW-1	09/23/2008	Storage	<0.1	1.09	<2	131	3.01	14100	0.037	0.3	<0.05	7.3	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	16
SZMW-1	09/30/2008	Storage	<0.1	1.71	<2	134	2.87	14300	0.04	0.18	<0.05	20.9	<0.1	<0.1	<2	<0.1	<0.01	<1	0.2	<1	13
SZMW-1	10/14/2008	Storage	<0.1	1.3	<2	126	2.73	14000	<0.03	0.11	<0.05	5.8	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	14
SZMW-1	10/21/2008	Storage	<0.1	1.44	<2	126	2.65	14200	<0.03	0.14	<0.05	5.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	15
SZMW-1	11/04/2008	Storage	<0.1	1.54	<2	130	2.75	14200	0.037	0.11	<0.05	5.4	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	16
SZMW-1	11/18/2008	Storage	<0.1	1.21	<2	124	2.65	14000	<0.03	0.13	<0.05	5.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	15
SZMW-1	12/09/2008	Storage	<0.1	1.27	<2	152	2.8	13100	<0.03	0.11	<0.05	4.3	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	12/23/2008	Storage	<0.1	1.12	<2	146	2.76	13000	0.04	0.14	<0.05	4.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	10
SZMW-1	01/06/2009	Storage	0.1	0.8	<2	157	2.76	13300	<0.03	0.15	<0.05	4.6	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	01/20/2009	Storage	<0.1	0.88	<2	151	2.67	13600	0.038	0.13	<0.05	7.8	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	02/10/2009	Storage	<0.1	0.83	<2	147	2.71	13800	0.034	0.18	<0.05	4.6	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	03/05/2009	Storage	<0.1	0.75	<2	153	2.74	13800	0.035	0.12	<0.05	12.9	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	03/24/2009	Storage	<0.1	0.36	<2	169	2.78	13600	0.034	0.13	<0.05	4.4	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	04/15/2009	Storage	<0.1	0.62	<2	173	2.77	13600	0.033	0.15	<0.05	19.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	18
SZMW-1	05/05/2009	Storage	<0.1	0.41	<2	186	2.74	13600	0.033	0.14	<0.05	4.9	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	05/12/2009	Storage	<0.1	0.47	<2	173	2.74	13500	0.038	0.13	<0.05	4.6	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	05/22/2009	Storage	<0.1	0.72	<2	162	2.81	14200	0.035	0.16	<0.05	5.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	06/02/2009	Storage	<0.1	0.54	<2	151	2.69	14200	0.034	0.15	<0.05	5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	06/23/2009	Storage	0.11	0.68	<2	145	2.67	14300	0.035	0.16	<0.05	5	<0.1	<0.1	<2	<0.1	<0.01	<1	0.29	<1	<10
SZMW-1	07/14/2009	Storage	0.06	0.95	0.4	150	2.54	12400	0.027	0.04	<0.005	4.7	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.1	8
SZMW-1	07/24/2009	Storage	0.05	1	0.2	149	2.62	12500	0.026	0.03	<0.005	4.6	0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.1	8
SZMW-1	08/04/2009	Injection	0.06	1.64	0.5	193	2.65	10700	0.023	0.02	<0.005	3.8	0.01	<0.01	<0.2	0.02	<0.001	0.1	0.01	0.1	9
SZMW-1	09/15/2009	Injection	0.04	2.63	<0.2	251	3.12	6150	0.015	0.03	<0.005	2.7	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.02	<0.1	9
SZMW-1	10/13/2009	Injection	0.02	4.03	0.3	178	3.08	4270	0.009	0.02	<0.005	2.3	0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.02	<0.1	4
SZMW-1	11/03/2009	Injection	0.04	3.77	0.2	179	3.38	4000	0.02	0.02	<0.005	2.5	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	2

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	06/17/2008	Storage	0.012	18.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	07/01/2008	Storage	0.013	18.8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	07/15/2008	Storage	0.013	18.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	07/29/2008	Storage	0.015	18.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	08/12/2008	Storage	0.012	18.8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	08/26/2008	Storage	0.017	18.8	0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	09/09/2008	Storage	0.013	18.4	0.021	0.038	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	09/16/2008	Storage	0.017	18.1	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	09/23/2008	Storage	0.026	19.2	0.023	0.042	<0.01	0.016	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	09/30/2008	Storage	0.021	18.5	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	10/14/2008	Storage	0.011	18.5	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	10/21/2008	Storage	0.013	18.1	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	11/04/2008	Storage	0.017	18.4	<0.01	0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	11/18/2008	Storage	0.012	18.7	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	12/09/2008	Storage	0.013	18.1	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	12/23/2008	Storage	0.014	18.5	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	01/06/2009	Storage	0.012	19	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	01/20/2009	Storage	0.014	17.8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	02/10/2009	Storage	0.014	20.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	03/05/2009	Storage	0.014	18.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	03/24/2009	Storage	0.014	17.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	04/15/2009	Storage	0.014	18.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	05/05/2009	Storage	0.011	18.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	05/12/2009	Storage	0.015	18.4	0.03	0.037	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	05/22/2009	Storage	0.018	18.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	06/02/2009	Storage	0.017	18.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	06/23/2009	Storage	0.016	18.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	07/14/2009	Storage	0.013	18.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/24/2009	Storage	0.012	18.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/04/2009	Injection	0.014	17.7	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/15/2009	Injection	0.02	13.6	0.002	0.005	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/13/2009	Injection	0.023	11.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/03/2009	Injection	0.028	11.7	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Sulfide	Chloride
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L
SZMW-1	06/17/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	2.08	573		
SZMW-1	07/01/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	2.05	585		38.4
SZMW-1	07/15/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.99	598		
SZMW-1	07/29/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.94	596		
SZMW-1	08/12/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.97	625		
SZMW-1	08/26/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.26	<3	<0.01	1.91	597		
SZMW-1	09/09/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.46	<3	<0.01	1.91	577		
SZMW-1	09/16/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.39	<3	<0.01	1.9	569	2.82	33.3
SZMW-1	09/23/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.38	<3	<0.01	2.29	592	2.98	35.8
SZMW-1	09/30/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.43	<3	<0.01	2.1	600	2.8	37.3
SZMW-1	10/14/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.96	572	2.7	34.4
SZMW-1	10/21/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.9	587	2.77	36.5
SZMW-1	11/04/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.87	653	3.14	45.8
SZMW-1	11/18/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.12	<3	<0.01	1.8	605	2.86	35.6
SZMW-1	12/09/2008	Storage	<0.01	<0.01	<0.2	0.011	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.67	522	1.9	38.5
SZMW-1	12/23/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.62	531	2	37.6
SZMW-1	01/06/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.59	562	2.1	37.7
SZMW-1	01/20/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.51	<3	<0.01	1.57	583	2.1	37.8
SZMW-1	02/10/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.13	<3	<0.01	1.5	240	0.16	37.1
SZMW-1	03/05/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.73	<3	<0.01	1.55	557	2.23	47.6
SZMW-1	03/24/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.29			39.9
SZMW-1	04/15/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.52	<3	<0.01	1.34			43.5
SZMW-1	05/05/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.3			45.7
SZMW-1	05/12/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.41	<3	<0.01	1.44	580	1.7	42.5
SZMW-1	05/22/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.61	599	2.82	37.1
SZMW-1	06/02/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	1.56	594	2.75	40.3
SZMW-1	06/23/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.26	<3	<0.01	1.47	586	2.56	38
SZMW-1	07/14/2009	Storage	<0.001	<0.001	0.06	0.008	<0.002	<0.3	<0.002	<0.2	0.001	0.02	<0.3	<0.001	1.49			36.6
SZMW-1	07/24/2009	Storage	<0.001	<0.001	0.06	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	1.5			
SZMW-1	08/04/2009	Injection	<0.001	<0.001	0.06	0.009	<0.002	<0.3	<0.002	<0.2	<0.001	0.94	<0.3	<0.001	1.29	507	1.61	40.8
SZMW-1	09/15/2009	Injection	<0.001	<0.001	0.05	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	0.27	<0.3	<0.001	0.728	321	0.485	46.6
SZMW-1	10/13/2009	Injection	<0.001	<0.001	0.04	0.029	<0.002	<0.3	<0.002	<0.2	0.001	0.02	<0.3	<0.001	0.553	229	0.263	37.3
SZMW-1	11/03/2009	Injection	<0.001	<0.001	0.03	0.032	<0.002	<0.3	<0.002	<0.2	<0.001	0.07	<0.3	<0.001	0.556	218	0.237	39

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Temp	pH	ORP	Conductivity	DO	Turbidity
			°C	std. units	mV	µS/cm	mg/L	NTU
SZMW-1	06/17/2008	Storage	26.42	7.15	-147.4	1343	0.17	0.26
SZMW-1	07/01/2008	Storage	26.47	7.32	-161.8	1327	0.08	0.19
SZMW-1	07/15/2008	Storage	26.44	7.27	-169.3	1314	0.81	0.15
SZMW-1	07/29/2008	Storage	26.6	7.26	-139.5	1398	0.52	0.19
SZMW-1	08/12/2008	Storage	26.5	7.46	-156.2	1360	0.39	0.64
SZMW-1	08/26/2008	Storage	26.6	7.28	-155	1339	0.15	0.59
SZMW-1	09/09/2008	Storage	26.51	7.2	-141	1344	0.1	0.48
SZMW-1	09/16/2008	Storage	26.36	7.2	-128.1	1344	0.29	0.48
SZMW-1	09/23/2008	Storage	26.45	7.28	-148.6	1357	0.16	0.34
SZMW-1	09/30/2008	Storage	26.45	7.21	-163.1	1341	0.09	0.17
SZMW-1	10/14/2008	Storage	26.43	7.28	-168.1	1339	0.14	0.11
SZMW-1	10/21/2008	Storage	26.34	7.24	-191.2	1432	0.15	0.25
SZMW-1	11/04/2008	Storage	26.28	7.22	-171	1335	0.12	0.12
SZMW-1	11/18/2008	Storage	26	7.34	-171.3	1317	0.16	0.16
SZMW-1	12/09/2008	Storage	26.4	7.29	-183.1	1289	0.2	0.65
SZMW-1	12/23/2008	Storage	26.3	7.43	-179.8	1316	0.11	0.48
SZMW-1	01/06/2009	Storage	26.5	7.27	-181.5	1308	0.14	0.81
SZMW-1	01/20/2009	Storage	26.1	7.16	-185.8	1337	0.11	0.31
SZMW-1	02/10/2009	Storage	26.3	7.37	-187	1410	0.12	0.32
SZMW-1	03/05/2009	Storage	26.25	7.42	-180.6	1307	0.1	0.32
SZMW-1	03/24/2009	Storage	26.33	7.42	-168.8	1342	0.16	0.29
SZMW-1	04/15/2009	Storage	26.3	7.44	-165	1314	0.15	0.39
SZMW-1	05/05/2009	Storage	26.41	7.47	-180.3	1358	0.18	0.29
SZMW-1	05/12/2009	Storage	26.4	7.1	-166.9	1329	0.39	0.6
SZMW-1	05/22/2009	Storage	26.36	7	-199.2	1358	0.09	0.85
SZMW-1	06/02/2009	Storage	26.47	7.22	-174.6	1371	0.2	0.15
SZMW-1	06/23/2009	Storage	26.55	7.17	-163.5	1335	0.07	0.1
SZMW-1	07/14/2009	Storage	26.44	7.37	-157.4	1338	0.1	0.13
SZMW-1	07/24/2009	Storage						
SZMW-1	08/04/2009	Injection	26.4	7.33	-144.6	1254	0.07	0.15
SZMW-1	09/15/2009	Injection	27.32	7.6	-204.5	952	0.11	0.21
SZMW-1	10/13/2009	Injection	27.93	7.89	-125.1	806	0.07	0.17
SZMW-1	11/03/2009	Injection	27.81	7.83	-128.3	732	0.03	0.11

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Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	12/09/2009	Injection	2	<0.1	57800	17800	8	4400	3840	59800	<1	0.5	0.2	<0.5	0.2	<10	<0.005	0.3	0.7	2.4	0.01
SZMW-1	01/07/2010	Injection	2	<0.1	56000	18900	15	4800	3800	63500	<1	0.8	0.1	<0.5	0.6	<10	<0.005	0.8	23	387	0.02
SZMW-1	03/03/2010	Injection	2	<0.1	53700	23400	7	5100	3690	69300	<1	0.6	<0.1	<0.5	0.2	30	<0.005	0.4	62.8	4.2	0.01
SZMW-1	05/07/2010	Injection	1	<0.1	59200	16000	5	3000	4360	62100	<1	0.4	0.1	<0.5	0.1	20	<0.005	0.4	0.8	2.2	0.01
SZMW-1	05/25/2010	Injection	1	<0.1	61900	15300	2	3000	4480	63400	<1	0.3	0.1	<0.5	0.1	<10	<0.005	0.3	0.6	1	0.01
SZMW-1	06/02/2010	Storage	1	<0.1	60100	16600	4	3300	4480	63600	<1	0.4	0.1	<0.5	0.1	<10	<0.005	0.4	0.9	3.8	0.01
SZMW-1	06/15/2010	Storage	3	<0.1	63800	17700	<2	3600	5440	61900	<1	0.6	0.3	0.9	0.3	<10	<0.005	<0.3	0.7	10.3	0.01
SZMW-1	06/29/2010	Storage	3	<0.1	63600	18800	<2	3600	5520	62600	<1	0.6	0.1	<0.5	0.4	<10	<0.005	0.3	0.9	23.4	0.01
SZMW-1	07/13/2010	Storage	3	<0.1	62800	18800	<2	3600	5420	62400	<1	0.6	<0.1	<0.5	0.2	<10	<0.005	<0.3	1.5	9.1	0.01
SZMW-1	07/27/2010	Storage	3	<0.1	61700	18800	<2	4000	5450	61800	<1	0.5	<0.1	<0.5	0.3	<10	<0.005	<0.3	0.5	14.4	0.01
SZMW-1	08/10/2010	Storage	3	<0.1	61500	20000	<2	4500	5230	64600	<1	0.8	<0.1	<0.5	0.2	<10	<0.005	<0.3	0.4	7.3	0.01
SZMW-1	08/24/2010	Storage	4	<0.1	60300	19700	<2	4500	5240	67700	<1	0.6	<0.1	<0.5	0.2	<10	<0.005	<0.3	0.3	7.5	0.01
SZMW-1	08/31/2010	Storage	4	<0.1	59600	19900	5	4400	5160	68100	<1	0.6	<0.1	<0.5	0.2	<10	<0.005	<0.3	0.3	8.3	0.01
SZMW-1	09/07/2010	Recovery	2	<0.1	53400	25500	27	4700	4140	78200	<1	0.9	0.2	<0.5	0.2	10	<0.005	0.4	0.7	2.9	0.01
SZMW-1	09/28/2010	Recovery	2	<0.1	49000	28400	<2	5200	3430	83600	<1	0.6	<0.1	<0.5	0.1	20	<0.005	<0.3	0.4	13.9	0.01
SZMW-1	10/12/2010	Recovery	3	<0.1	45900	30800	<2	5800	3130	88900	<1	0.6	<0.1	<0.5	0.2	20	<0.005	<0.3	0.6	3.8	0.01
SZMW-1	11/02/2010	Recovery	3	<0.1	40700	36300	<2	6300	2810	102000	1	0.6	<0.1	<0.5	0.2	<10	<0.005	<0.3	1	1.9	0.01
SZMW-1	12/01/2010	Recovery	3	<0.1	41700	41800	<2	6900	2590	117000	1	0.7	<0.1	<0.5	0.4	10	<0.005	<0.3	0.4	6.5	0.01
SZMW-1	12/28/2010	Recovery	9	<0.1	39600	44300	2	9100	3520	122000	2	1.1	<0.1	<0.5	0.5	<10	<0.005	<0.3	<0.2	7	0.01
SZMW-1	01/19/2011	Recovery	11	<0.1	36000	50200	3	9800	3360	136000	2	1.2	<0.1	<0.5	0.3	<10	<0.005	<0.3	<0.2	1.6	0.01
SZMW-1	02/02/2011	Recovery	11	<0.1	34400	53200	7	10000	3200	142000	2	1.3	<0.1	<0.5	0.4	<10	<0.005	<0.3	<0.2	11.7	0.01
SZMW-1	02/15/2011	Recovery	11	<0.1	34200	54400	7	10100	3170	145000	2	1.2	<0.1	<0.5	0.4	<10	<0.005	0.3	<0.2	2.5	0.01

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	12/09/2009	Injection	0.03	1.74	<0.2	182	3.26	3710	0.02	0.02	0.009	2.8	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.2	<0.1	2
SZMW-1	01/07/2010	Injection	0.04	3.51	<0.2	181	3.29	3970	0.034	0.05	0.006	3.9	<0.01	<0.01	<0.2	0.07	<0.001	0.1	0.12	<0.1	1
SZMW-1	03/03/2010	Injection	0.04	4.33	<0.2	182	3.22	4320	0.026	0.02	0.007	3.6	<0.01	<0.01	<0.2	0.01	<0.001	0.5	0.04	<0.1	1
SZMW-1	05/07/2010	Injection	0.03	3.27	<0.2	199	3.24	3410	0.017	0.02	0.012	1.4	<0.01	<0.01	<0.2	<0.01	0.001	<0.1	0.02	<0.1	<1
SZMW-1	05/25/2010	Injection	0.03	4	<0.2	197	3.41	3460	0.015	0.01	0.013	1.3	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.03	<0.1	1
SZMW-1	06/02/2010	Storage	0.04	3.42	<0.2	209	3.52	3520	0.019	0.02	0.012	1.6	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.02	<0.1	1
SZMW-1	06/15/2010	Storage	0.03	2.57	<0.2	232	3.37	3520	0.012	<0.01	<0.005	1.6	<0.01	0.01	<0.2	<0.01	<0.001	<0.1	0.02	<0.1	3
SZMW-1	06/29/2010	Storage	0.03	2.16	<0.2	219	3.31	3660	0.013	<0.01	<0.005	1.7	<0.01	0.01	<0.2	<0.01	0.001	<0.1	0.04	<0.1	2
SZMW-1	07/13/2010	Storage	0.04	2.05	<0.2	217	3.36	3620	0.01	<0.01	<0.005	1.8	<0.01	0.02	<0.2	0.05	<0.001	<0.1	0.01	<0.1	2
SZMW-1	07/27/2010	Storage	0.05	1.77	<0.2	213	3.41	3630	0.013	<0.01	<0.005	1.9	<0.01	0.01	<0.2	<0.01	<0.001	<0.1	0.04	<0.1	2
SZMW-1	08/10/2010	Storage	0.03	1.67	<0.2	220	3.29	3840	0.012	<0.01	<0.005	2.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.03	<0.1	2
SZMW-1	08/24/2010	Storage	0.04	1.52	<0.2	212	3.23	3950	0.012	<0.01	<0.005	2.3	<0.01	0.01	<0.2	<0.01	<0.001	<0.1	0.04	<0.1	2
SZMW-1	08/31/2010	Storage	0.02	1.41	<0.2	208	3.12	4030	0.016	<0.01	<0.005	2.2	<0.01	0.01	<0.2	0.04	<0.001	<0.1	0.02	0.1	2
SZMW-1	09/07/2010	Recovery	0.04	1.66	<0.2	194	3.48	4380	0.042	0.05	0.006	3	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.01	<0.1	2
SZMW-1	09/28/2010	Recovery	0.04	1.09	<0.2	174	3.16	5220	0.024	0.03	0.005	3.8	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	1
SZMW-1	10/12/2010	Recovery	0.04	0.78	<0.2	167	3.06	5630	0.025	0.01	<0.005	3.9	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	1
SZMW-1	11/02/2010	Recovery	0.04	0.58	<0.2	154	2.96	6700	0.027	0.01	<0.005	4	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	<0.1	1
SZMW-1	12/01/2010	Recovery	0.04	0.41	0.3	146	2.78	7760	0.031	0.01	<0.005	3.8	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	<0.1	1
SZMW-1	12/28/2010	Recovery	0.07	0.42	0.8	193	3.35	7600	0.041	0.05	0.006	3.7	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	5
SZMW-1	01/19/2011	Recovery	0.07	0.4	0.9	190	3.27	8450	0.046	0.02	0.006	3.7	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	5
SZMW-1	02/02/2011	Recovery	0.07	0.4	0.8	188	3.18	8940	0.051	0.02	0.005	3.5	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	5
SZMW-1	02/15/2011	Recovery	0.08	0.38	0.7	201	3.09	9210	0.053	0.02	0.006	3.4	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	5

REPORT OF INVESTIGATION NO. 112

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	12/09/2009	Injection	0.024	12.1	0.002	0.004	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-1	01/07/2010	Injection	0.025	13.2	0.021	0.034	0.004	0.013	0.003	<0.001	0.004	<0.001	0.003	<0.001	0.001	<0.001	0.002	0.001
SZMW-1	03/03/2010	Injection	0.024	13.2	0.007	0.011	<0.001	0.006	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-1	05/07/2010	Injection	0.024	13	0.002	0.003	<0.001	0.002	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-1	05/25/2010	Injection	0.026	13.7	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/02/2010	Storage	0.026	14.1	0.004	0.005	<0.001	0.002	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/15/2010	Storage	0.026	12.6	0.003	<0.001	<0.001	0.008	0.008	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/29/2010	Storage	0.022	12.8	<0.001	<0.001	<0.001	<0.001	0.004	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/13/2010	Storage	0.023	12.7	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/27/2010	Storage	0.025	12.8	<0.001	<0.001	<0.001	0.006	<0.001	0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
SZMW-1	08/10/2010	Storage	0.024	12.9	0.001	<0.001	<0.001	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/24/2010	Storage	0.021	13	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
SZMW-1	08/31/2010	Storage	0.019	12.9	0.004	0.002	<0.001	0.007	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/07/2010	Recovery	0.029	16.2	0.02	0.033	0.004	0.016	0.004	0.001	0.004	<0.001	0.004	<0.001	0.003	<0.001	0.002	<0.001
SZMW-1	09/28/2010	Recovery	0.029	15.2	0.002	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-1	10/12/2010	Recovery	0.029	15.6	0.002	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/02/2010	Recovery	0.028	16.3	0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/01/2010	Recovery	0.026	16.8	0.002	0.002	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/28/2010	Recovery	0.026	17.6	0.002	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/19/2011	Recovery	0.027	18.3	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/02/2011	Recovery	0.027	18.2	0.005	0.008	0.001	0.005	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/15/2011	Recovery	0.022	18.9	0.004	0.007	<0.001	0.004	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

FLORIDA GEOLOGICAL SURVEY

Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Sulfide	Chloride
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L
SZMW-1	12/09/2009	Injection	<0.001	<0.001	0.02	0.024	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	1.67	222	0.088	41
SZMW-1	01/07/2010	Injection	<0.001	<0.001	0.03	0.022	<0.002	<0.3	<0.002	<0.2	<0.001	1.38	<0.3	0.002	0.98	242	0.253	41.3
SZMW-1	03/03/2010	Injection	<0.001	<0.001	0.03	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	2.02	<0.3	0.001	0.981	265	0.38	41.5
SZMW-1	05/07/2010	Injection	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	1.24	243	0.08	46.4
SZMW-1	05/25/2010	Injection	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	1.15	246	0.102	48
SZMW-1	06/02/2010	Storage	<0.001	<0.001	0.02	0.014	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	1.04	249	0.171	47.8
SZMW-1	06/15/2010	Storage	<0.001	<0.001	<0.02	0.011	<0.002	<0.3	0.007	<0.2	0.004	0.04	<0.3	<0.001	0.949	254	0.257	48.1
SZMW-1	06/29/2010	Storage	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	0.003	<0.2	0.002	0.04	<0.3	0.001	0.953			43.8
SZMW-1	07/13/2010	Storage	<0.001	<0.001	<0.02	0.008	<0.002	<0.3	0.002	<0.2	0.001	0.09	<0.3	0.001	0.877			49.9
SZMW-1	07/27/2010	Storage	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	0.002	<0.2	<0.001	0.06	<0.3	<0.001	0.857			43.6
SZMW-1	08/10/2010	Storage	<0.001	<0.001	<0.02	0.009	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	0.001	0.873			43.4
SZMW-1	08/24/2010	Storage	<0.001	<0.001	<0.02	0.011	<0.002	<0.3	0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.883			42.8
SZMW-1	08/31/2010	Storage	<0.001	<0.001	<0.02	0.011	<0.002	0.5	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.876			43
SZMW-1	09/07/2010	Recovery	0.001	<0.001	0.04	0.012	<0.002	<0.3	<0.002	<0.2	0.002	0.05	<0.3	0.004	1.06	300	0.639	43.1
SZMW-1	09/28/2010	Recovery	<0.001	<0.001	0.04	0.015	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.95	316	0.784	41.7
SZMW-1	10/12/2010	Recovery	<0.001	<0.001	0.03	0.016	<0.002	<0.3	<0.002	<0.2	<0.001	0.13	<0.3	<0.001	0.969	335	0.978	43.3
SZMW-1	11/02/2010	Recovery	<0.001	<0.001	0.04	0.015	<0.002	<0.3	<0.002	<0.2	<0.001	0.09	<0.3	<0.001	1.04	398	1.47	45
SZMW-1	12/01/2010	Recovery	<0.001	<0.001	0.03	0.014	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	1.07	407	1.55	41
SZMW-1	12/28/2010	Recovery	0.001	<0.001	0.05	0.014	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.002	1.11	453	1.81	42.3
SZMW-1	01/19/2011	Recovery	<0.001	<0.001	0.04	0.011	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	0.001	1.17	504	1.91	43.6
SZMW-1	02/02/2011	Recovery	<0.001	<0.001	0.05	0.008	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.002	1.15	549	1.97	45.6
SZMW-1	02/15/2011	Recovery	<0.001	<0.001	0.04	0.009	<0.002	<0.3	<0.002	<0.2	<0.001	0.21	<0.3	0.002	1.12	574	2.19	50.2

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Bradenton ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Temp	pH	ORP	Conductivity	DO	Turbidity
			°C	std. units	mV	µS/cm	mg/L	NTU
SZMW-1	12/09/2009	Injection	26.14	8.07	-79.2	748	0.17	0.17
SZMW-1	01/07/2010	Injection	26.07	7.98	-166.5	772	0.4	0.19
SZMW-1	03/03/2010	Injection	26.12	8.03	-167.2	849	0.08	0.51
SZMW-1	05/07/2010	Injection	23.61	7.98	-186.5	780	0.27	0.3
SZMW-1	05/25/2010	Injection	24.63	7.93	-182.6	813	0.16	0.13
SZMW-1	06/02/2010	Storage	24.51	8.02	-189.1	798	0.09	0.53
SZMW-1	06/15/2010	Storage	24.84	7.93	-165.3	810	0.14	0.58
SZMW-1	06/29/2010	Storage	24.71	7.92	-166.5	830	0.09	0.73
SZMW-1	07/13/2010	Storage	24.86	7.83	-192.7	806	0.08	0.22
SZMW-1	07/27/2010	Storage	24.87	8.37	-139.4	824	0.07	0.18
SZMW-1	08/10/2010	Storage	24.91	7.98	-168.7	827	0.09	0.08
SZMW-1	08/24/2010	Storage	25	7.85	-179.5	933	0.12	0.24
SZMW-1	08/31/2010	Storage	25.08	7.68	-175.9	856	0.13	0.31
SZMW-1	09/07/2010	Recovery	25.4	7.7	-219	915	0.08	7.57
SZMW-1	09/28/2010	Recovery	25.8	7.6	-200	1005	0.07	0.33
SZMW-1	10/12/2010	Recovery	26	7.7	-213	965	0.12	0.15
SZMW-1	11/02/2010	Recovery	26.2	7.6	-226	1051	0.06	0.15
SZMW-1	12/01/2010	Recovery	26.1	7.5	-221	1029	0.08	0.15
SZMW-1	12/28/2010	Recovery	26.1	7.6	-252	1206	0.11	0.23
SZMW-1	01/19/2011	Recovery	26.2	7.5	-242	1315	0.12	0.27
SZMW-1	02/02/2011	Recovery	26.2	7.4	-230	1268	0.13	1.42
SZMW-1	02/15/2011	Recovery	26.1	7.4	-246	1496	0.15	0.64

FLORIDA GEOLOGICAL SURVEY

Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	03/25/2010	Native Ground Water	2	<0.1	10000	6750	8	8200	1300	70100	3	3.5	0.5	<0.5	13.4	510	0.012	<0.3	0.6	2
ASR	03/25/2010	Native Ground Water																		
ASR	03/25/2010	Native Ground Water																		
ASR	05/26/2010	Recovery	2	<0.1	8260	5970	3	7700	1200	75200	2	2.4	0.2	<0.5	12.6	410	<0.005	<0.3	3.1	16.3
ASR	05/28/2010	Recovery	2	<0.1	8780	6340	2	6400	1390	68900	2	1.5	1.9	<0.5	17.8	60	<0.005	1.9	0.9	5.3
ASR	06/04/2010	Recovery	2	<0.1	9900	6550	3	6000	1460	66800	2	1.7	0.9	<0.5	16	240	<0.005	1.3	1	13
ASR	06/09/2010	Recovery	2	<0.1	11600	6740	2	6200	1470	65300	2	2	0.3	<0.5	15.4	390	<0.005	0.6	6.2	161
ASR	06/16/2010	Recovery	2	<0.1	8970	6210	<2	7800	1340	77000	2	2.2	0.2	<0.5	16.1	400	<0.005	0.5	6.3	43.1
ASR	06/23/2010	Recovery	2	<0.1	9740	6490	<2	7300	1360	69500	2	2	0.3	<0.5	14.8	370	<0.005	0.5	1.4	86
ASR	07/21/2010	Injection	2	<0.1	11000	6150	2	6500	1390	62900	2	2.4	0.3	<0.5	11.7	600	<0.005	<0.3	53.2	129
ASR	07/30/2010	Recovery	2	<0.1	10900	5980	3	6800	1430	58900	2	2.5	0.2	<0.5	11.8	620	<0.005	<0.3	8.5	43.1
ASR	07/30/2010	Recovery	2	<0.1	12700	6730	4	5500	1670	55500	1	2.3	0.5	<0.5	5.5	80	<0.005	<0.3	8.3	23.8
ASR	08/03/2010	Recovery	2	<0.1	10600	6780	2	7100	1230	69700	2	2.3	0.2	<0.5	13.4	640	<0.005	<0.3	19.9	19.8
ASR	08/04/2010	Recovery	2	<0.1	10100	6790	3	7200	1250	69900	2	2.3	0.2	<0.5	13.8	620	<0.005	0.8	111	91.3
ASR	10/22/2010	Recovery	2	<0.1	11100	7100	2	6200	1300	66700	2	2.3	0.2	<0.5	13.4	680	<0.005	1	84.1	52.1
ASR	10/27/2010	Recovery	2	<0.1	10300	6760	<2	6700	1280	66900	2	2.2	0.2	<0.5	14	600	<0.005	0.6	29.9	70
ASR	11/09/2010	Recovery	2	<0.1	7400	5100	<2	6500	1150	70500	2	1.8	0.2	<0.5	12.5	550	<0.005	<0.3	16	46.3
ASR	01/28/2011	Injection	2	<0.1	9530	4380	5	4000	1140	49800	<1	1.7	0.3	<0.5	5.6	110	<0.005	<0.3	0.4	5.1
ASR	02/11/2011	Injection	1	<0.1	7070	3420	6	3200	880	48100	<1	1.4	0.3	<0.5	4.6	80	<0.005	0.5	1.3	33.5
ASR	02/15/2011	Storage	1	<0.1	4180	2190	4	2600	620	50300	<1	1.1	0.2	<0.5	1.5	30	<0.005	<0.3	3.7	18.9
ASR	02/23/2011	Storage	2	<0.1	8230	7830	35	5200	1360	67100	1	10.5	0.8	<0.5	68.3	3320	<0.005	3.8	10.3	128
ASR	03/03/2011	Recovery	2	<0.1	7690	6480	33	5000	1130	66400	1	5.6	0.4	<0.5	32.6	2500	<0.005	1.2	35	12.5
ASR	03/23/2011	Recovery	2	<0.1	6850	4790	3	6000	1050	68800	1	1.8	0.3	<0.5	13.1	760	<0.005	1.6	12.2	51.1
ASR	03/15/2011	Recovery	2	<0.1	7270	4880	8	5700	1070	67300	1	1.8	0.2	<0.5	14	790	<0.005	1.4	1	11.2
SZMW-1	04/29/2010	Native Ground Water																		
SZMW-1	04/29/2010	Native Ground Water																		
SZMW-1	07/21/2010	Injection	2	<0.1	14000	7390	5	5100	1580	56100	1	1.9	0.6	<0.5	13.2	470	<0.005	<0.3	7.7	86.7
SZMW-1	07/29/2010	Storage	1	<0.1	14500	7150	4	5300	1560	54500	1	2.5	0.3	<0.5	5.3	440	<0.005	<0.3	2	30.5
SZMW-1	10/14/2010	Storage	1	<0.1	11700	7820	4	6300	1490	63700	2	7.4	0.2	<0.5	18.2	2250	<0.005	<0.3	0.3	4
SZMW-1	10/22/2010	Recovery	2	<0.1	11700	7410	2	6400	1380	63000	2	2.1	0.2	<0.5	15.4	970	<0.005	0.7	27.8	8
SZMW-1	10/27/2010	Recovery	2	<0.1	11000	7110	4	7200	1290	65100	2	2.7	0.4	<0.5	18.4	4070	<0.005	0.5	1.6	6.5
SZMW-1	11/09/2010	Recovery	3	<0.1	7250	4820	<2	7300	1360	69800	2	2.1	0.3	<0.5	14.4	2510	<0.005	<0.3	1.4	30.9
SZMW-1	01/28/2011	Injection	2	<0.1	8470	4000	4	3800	1060	48700	<1	1.5	0.4	<0.5	8	750	<0.005	0.4	1.2	46

REPORT OF INVESTIGATION NO. 112

Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ga	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	03/25/2010	Native Ground Water	0.03	0.06	0.18	<0.2	70	3.06	320	0.009	0.07	<0.005	1.3	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01
ASR	03/25/2010	Native Ground Water																		
ASR	03/25/2010	Native Ground Water																		
ASR	05/26/2010	Recovery	0.02	0.06	0.29	<0.2	57	3.14	320	0.007	0.03	<0.005	0.6	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.01
ASR	05/28/2010	Recovery	0.03	0.04	7.58	<0.2	52	3.57	270	0.01	0.04	<0.005	44.4	<0.01	<0.01	<0.2	0.21	<0.001	<0.1	1.12
ASR	06/04/2010	Recovery	0.03	0.04	3.79	<0.2	53	3.2	250	0.011	0.03	<0.005	32.4	<0.01	<0.01	<0.2	0.13	<0.001	<0.1	0.78
ASR	06/09/2010	Recovery	0.02	0.05	3.15	<0.2	52	3.11	250	0.013	0.03	<0.005	8.7	<0.01	<0.01	<0.2	0.04	0.001	<0.1	0.2
ASR	06/16/2010	Recovery	0.02	0.06	1.65	<0.2	56	3.4	320	0.009	0.03	<0.005	4.1	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.04
ASR	06/23/2010	Recovery	0.02	0.05	2.32	<0.2	56	3.35	290	0.009	0.03	<0.005	4.3	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.08
ASR	07/21/2010	Injection	0.02	0.06	0.58	0.6	95	3.08	230	0.013	0.04	<0.005	2.2	<0.01	<0.01	<0.2	0.02	<0.001	0.1	0.01
ASR	07/30/2010	Recovery	0.02	0.07	0.59	0.6	96	3.17	210	0.012	0.05	<0.005	2.1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.01
ASR	07/30/2010	Recovery	0.02	0.04	0.22	0.6	74	2.85	169	0.054	0.05	<0.005	1.9	<0.01	<0.01	<0.2	0.03	0.002	<0.1	<0.01
ASR	08/03/2010	Recovery	0.02	0.07	0.31	0.4	81	3.32	290	0.011	0.07	<0.005	1.2	<0.01	<0.01	<0.2	<0.01	<0.001	1.1	0.04
ASR	08/04/2010	Recovery	0.02	0.08	0.26	0.3	78	3.45	300	0.011	0.05	<0.005	1	<0.01	<0.01	<0.2	0.01	<0.001	6.7	0.13
ASR	10/22/2010	Recovery	0.02	0.07	0.36	0.3	105	3.24	240	0.01	0.05	<0.005	2.7	<0.01	<0.01	<0.2	0.02	<0.001	5.8	0.1
ASR	10/27/2010	Recovery	0.02	0.08	0.21	0.4	90	3.35	250	0.009	0.05	<0.005	1.9	<0.01	<0.01	<0.2	0.01	<0.001	0.1	0.02
ASR	11/09/2010	Recovery	0.01	0.07	0.15	<0.2	64	3.3	290	0.008	0.03	<0.005	1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01
ASR	01/28/2011	Injection	0.03	0.03	0.92	0.2	47	2.44	200	0.037	0.03	<0.005	15.7	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	<0.01
ASR	02/11/2011	Injection	0.03	0.02	1.28	<0.2	38	1.99	178	0.03	0.03	0.005	22	<0.01	<0.01	<0.2	0.08	<0.001	<0.1	<0.01
ASR	02/15/2011	Storage	0.02	0.01	0.93	<0.2	36	1.71	161	0.011	0.03	<0.005	20.1	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	0.01
ASR	02/23/2011	Storage	0.07	0.04	4.4	0.4	79	3.59	250	0.091	0.09	<0.005	26.5	<0.01	<0.01	<0.2	0.11	0.001	0.1	<0.01
ASR	03/03/2011	Recovery	0.05	0.04	3.71	<0.2	66	3.32	260	0.042	0.07	0.005	27.6	<0.01	<0.01	<0.2	0.1	0.001	0.1	0.02
ASR	03/23/2011	Recovery	0.02	0.06	0.67	0.2	55	3.11	280	0.01	0.04	<0.005	6.1	<0.01	<0.01	<0.2	0.04	<0.001	0.3	<0.01
ASR	03/15/2011	Recovery	0.02	0.06	0.88	0.3	54	3.14	270	0.009	0.06	<0.005	9.7	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01
SZMW-1	04/29/2010	Native Ground Water																		
SZMW-1	04/29/2010	Native Ground Water																		
SZMW-1	07/21/2010	Injection	0.02	0.04	0.43	0.4	59	2.95	182	0.034	0.09	<0.005	2.2	<0.01	<0.01	<0.2	0.02	0.002	<0.1	0.03
SZMW-1	07/29/2010	Storage	0.02	0.04	0.29	0.6	86	3.38	194	0.016	0.03	<0.005	3.1	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.02
SZMW-1	10/14/2010	Storage	0.04	0.06	0.66	0.3	78	3.49	230	0.019	0.05	<0.005	3.6	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01
SZMW-1	10/22/2010	Recovery	0.02	0.05	0.41	0.3	105	3.11	220	0.008	0.05	<0.005	3.6	<0.01	<0.01	<0.2	0.02	<0.001	1.7	0.03
SZMW-1	10/27/2010	Recovery	0.03	0.08	0.32	0.3	90	3.07	240	0.016	0.06	<0.005	2.6	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.01
SZMW-1	11/09/2010	Recovery	0.02	0.06	0.21	<0.2	62	4.05	280	0.009	0.04	<0.005	1.6	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01
SZMW-1	01/28/2011	Injection	0.03	0.03	0.96	0.3	47	2.41	200	0.027	0.04	<0.005	17	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	0.02

FLORIDA GEOLOGICAL SURVEY

Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Te	I	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	03/25/2010	Native Ground Water	<0.1	7	0.032	25.6	0.005	0.009	0.001	0.005	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
ASR	03/25/2010	Native Ground Water															
ASR	03/25/2010	Native Ground Water															
ASR	05/26/2010	Recovery	<0.1	8	0.032	24.3	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	05/28/2010	Recovery	<0.1	9	0.036	20.2	<0.001	0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002
ASR	06/04/2010	Recovery	<0.1	8	0.03	21.8	0.001	0.002	<0.001	0.002	<0.001	0.002	<0.001	<0.001	0.001	<0.001	0.002
ASR	06/09/2010	Recovery	<0.1	10	0.028	23.8	0.001	0.003	<0.001	0.002	<0.001	0.002	0.001	<0.001	0.001	<0.001	0.003
ASR	06/16/2010	Recovery	<0.1	9	0.034	25.4	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	06/23/2010	Recovery	<0.1	10	0.034	24.9	<0.001	0.002	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	0.001	<0.001	0.002
ASR	07/21/2010	Injection	<0.1	18	0.029	25.7	0.001	0.003	<0.001	0.002	<0.001	0.002	0.001	<0.001	0.001	<0.001	0.002
ASR	07/30/2010	Recovery	<0.1	17	0.03	26	0.002	0.003	<0.001	0.002	<0.001	0.003	<0.001	<0.001	0.001	<0.001	0.002
ASR	07/30/2010	Recovery	<0.1	15	0.027	24	0.008	0.015	0.002	0.011	0.002	0.003	0.004	<0.001	0.005	0.002	0.007
ASR	08/03/2010	Recovery	<0.1	22	0.028	26.9	0.002	0.003	<0.001	0.002	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	0.002
ASR	08/04/2010	Recovery	<0.1	20	0.027	27.4	0.002	0.004	<0.001	0.003	0.001	0.003	0.001	<0.001	0.001	<0.001	0.001
ASR	10/22/2010	Recovery	<0.1	17	0.027	26.7	0.002	0.002	<0.001	0.002	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001
ASR	10/27/2010	Recovery	<0.1	21	0.028	26.7	0.002	0.003	<0.001	0.002	<0.001	0.003	<0.001	<0.001	0.001	<0.001	0.001
ASR	11/09/2010	Recovery	<0.1	5	0.029	27.9	0.002	0.002	<0.001	0.003	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001
ASR	01/28/2011	Injection	<0.1	4	0.024	19.3	0.009	0.014	0.003	0.014	0.003	0.002	0.003	<0.001	0.004	0.001	0.005
ASR	02/11/2011	Injection	<0.1	3	0.018	16.2	0.009	0.016	0.002	0.012	0.003	0.002	0.002	<0.001	0.004	0.001	0.005
ASR	02/15/2011	Storage	<0.1	3	0.019	13.7	0.005	0.007	0.001	0.005	0.002	<0.001	0.002	<0.001	0.001	<0.001	0.002
ASR	02/23/2011	Storage	<0.1	20	0.048	33.1	0.062	0.104	0.014	0.063	0.016	0.005	0.013	0.002	0.012	0.003	0.008
ASR	03/03/2011	Recovery	<0.1	19	0.041	32.1	0.036	0.062	0.008	0.028	0.005	0.002	0.008	0.001	0.006	0.001	0.004
ASR	03/23/2011	Recovery	<0.1	8	0.03	26.3	0.004	0.006	<0.001	0.003	0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001
ASR	03/15/2011	Recovery	<0.1	6	0.031	25.2	0.011	0.016	0.001	0.004	0.001	0.001	<0.001	<0.001	0.002	<0.001	0.001
SZMW-1	04/29/2010	Native Ground Water															
SZMW-1	04/29/2010	Native Ground Water															
SZMW-1	07/21/2010	Injection	<0.1	20	0.029	23.5	0.009	0.019	0.002	0.009	0.002	0.002	0.003	<0.001	0.003	0.001	0.006
SZMW-1	07/29/2010	Storage	<0.1	17	0.04	25.3	0.003	0.005	<0.001	0.004	0.001	0.002	0.001	<0.001	0.001	<0.001	0.002
SZMW-1	10/14/2010	Storage	<0.1	66	0.051	37.4	0.004	0.006	0.001	0.005	0.001	0.002	0.002	<0.001	0.002	<0.001	0.002
SZMW-1	10/22/2010	Recovery	<0.1	18	0.029	25	<0.001	0.002	<0.001	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/27/2010	Recovery	<0.1	21	0.035	27.5	0.004	0.007	0.001	0.004	0.001	0.002	0.002	<0.001	0.001	<0.001	0.001
SZMW-1	11/09/2010	Recovery	<0.1	5	0.091	27.5	0.002	0.003	<0.001	0.003	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/28/2011	Injection	<0.1	6	0.025	19.4	0.006	0.009	0.001	0.009	0.002	0.002	0.002	<0.001	0.002	<0.001	0.004

REPORT OF INVESTIGATION NO. 112

Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Tm	Yb	Lu	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	03/25/2010	Native Ground Water	<0.001	0.002	<0.001	0.002	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	0.002	0.18	<0.3	0.002
ASR	03/25/2010	Native Ground Water															
ASR	03/25/2010	Native Ground Water															
ASR	05/26/2010	Recovery	<0.001	<0.001	<0.001	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.24	<0.3	<0.001
ASR	05/28/2010	Recovery	<0.001	0.005	0.001	<0.001	<0.001	<0.02	0.022	<0.002	<0.3	<0.002	<0.2	0.002	0.08	<0.3	<0.001
ASR	06/04/2010	Recovery	<0.001	0.006	0.001	<0.001	<0.001	<0.02	0.022	<0.002	<0.3	<0.002	<0.2	<0.001	0.06	<0.3	<0.001
ASR	06/09/2010	Recovery	<0.001	0.007	0.001	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.001
ASR	06/16/2010	Recovery	<0.001	0.001	<0.001	0.001	<0.001	<0.02	0.003	<0.002	<0.3	<0.002	<0.2	0.001	0.02	<0.3	0.001
ASR	06/23/2010	Recovery	<0.001	0.003	<0.001	<0.001	<0.001	<0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001
ASR	07/21/2010	Injection	<0.001	0.006	0.001	0.002	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	0.002	0.43	<0.3	<0.001
ASR	07/30/2010	Recovery	<0.001	0.004	0.001	0.002	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	0.001	0.03	<0.3	<0.001
ASR	07/30/2010	Recovery	0.001	0.013	0.003	0.002	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	0.002	0.03	<0.3	0.001
ASR	08/03/2010	Recovery	<0.001	0.003	<0.001	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.002	1.35	<0.3	0.001
ASR	08/04/2010	Recovery	<0.001	0.003	<0.001	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.003	8.3	<0.3	0.001
ASR	10/22/2010	Recovery	<0.001	0.003	<0.001	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	0.002	6.59	<0.3	<0.001
ASR	10/27/2010	Recovery	<0.001	0.003	<0.001	0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	0.002	3.22	<0.3	<0.001
ASR	11/09/2010	Recovery	<0.001	0.002	<0.001	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.16	<0.3	0.001
ASR	01/28/2011	Injection	0.001	0.008	0.002	0.001	<0.001	<0.02	0.053	<0.002	<0.3	<0.002	<0.2	<0.001	0.14	<0.3	0.002
ASR	02/11/2011	Injection	<0.001	0.007	0.002	<0.001	<0.001	<0.02	0.1	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	0.002
ASR	02/15/2011	Storage	<0.001	0.003	<0.001	<0.001	<0.001	<0.02	0.072	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	0.002
ASR	02/23/2011	Storage	0.001	0.009	0.002	0.001	<0.001	<0.02	0.053	<0.002	<0.3	<0.002	<0.2	0.004	0.27	<0.3	0.009
ASR	03/03/2011	Recovery	<0.001	0.005	0.001	0.002	<0.001	<0.02	0.047	<0.002	<0.3	<0.002	<0.2	0.003	4.99	<0.3	0.009
ASR	03/23/2011	Recovery	<0.001	0.001	<0.001	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	1.21	<0.3	0.002
ASR	03/15/2011	Recovery	<0.001	0.003	<0.001	0.002	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	0.11	<0.3	0.002
SZMW-1	04/29/2010	Native Ground Water															
SZMW-1	04/29/2010	Native Ground Water															
SZMW-1	07/21/2010	Injection	0.001	0.012	0.003	0.003	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	0.001	0.34	<0.3	0.001
SZMW-1	07/29/2010	Storage	<0.001	0.006	0.001	0.002	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	0.001	0.03	<0.3	<0.001
SZMW-1	10/14/2010	Storage	<0.001	0.005	0.001	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001
SZMW-1	10/22/2010	Recovery	<0.001	0.003	0.001	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	1.99	<0.3	<0.001
SZMW-1	10/27/2010	Recovery	<0.001	0.003	<0.001	0.002	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	0.001	0.03	<0.3	0.001
SZMW-1	11/09/2010	Recovery	<0.001	0.002	<0.001	0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	0.002
SZMW-1	01/28/2011	Injection	<0.001	0.008	0.002	<0.001	<0.001	<0.02	0.054	<0.002	<0.3	<0.002	<0.2	0.003	0.04	<0.3	0.002

FLORIDA GEOLOGICAL SURVEY

Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	U	Sulfate	Sulfide	Chloride	Temp	pH	ORP	Conductivity	DO
			µg/L	mg/L	mg/L	mg/L	°C	std. units	mV	µS/cm	mg/L
ASR	03/25/2010	Native Ground Water	0.035								
ASR	03/25/2010	Native Ground Water		0.28							
ASR	03/25/2010	Native Ground Water									
ASR	05/26/2010	Recovery	0.034								
ASR	05/28/2010	Recovery	0.411								
ASR	06/04/2010	Recovery	0.201								
ASR	06/09/2010	Recovery	0.144								
ASR	06/16/2010	Recovery	0.11								
ASR	06/23/2010	Recovery	0.118								
ASR	07/21/2010	Injection	0.105	8	4.7	19.4	25.6	7.45	-253	395	7.48
ASR	07/30/2010	Recovery	0.107								
ASR	07/30/2010	Recovery	0.136								
ASR	08/03/2010	Recovery	0.057	5.6	0.85	14.9	24	7.69	-298	441	0.02
ASR	08/04/2010	Recovery	0.047					7.77	-302		0.01
ASR	10/22/2010	Recovery	0.107		1.1						
ASR	10/27/2010	Recovery	0.078	6	0.59	14.2	25.7	7.8	-431	439	1.09
ASR	11/09/2010	Recovery	0.045								
ASR	01/28/2011	Injection	0.241				20.5	7.43	-226		7.87
ASR	02/11/2011	Injection	0.332		5.2		21.1	7.09	-137	347	7.87
ASR	02/15/2011	Storage	0.245		1						
ASR	02/23/2011	Storage	0.313				22	7.07	-164	420	0.8
ASR	03/03/2011	Recovery	0.292		0.34		21.95	7.14	-326.4	422	1.07
ASR	03/23/2011	Recovery	0.091		0.42		22.99	7.36	-78.4	429	1.15
ASR	03/15/2011	Recovery	0.133		0.33		22.62	7.52	-155	426	0.1
SZMW-1	04/29/2010	Native Ground Water		0.88							
SZMW-1	04/29/2010	Native Ground Water		9.9							
SZMW-1	07/21/2010	Injection	0.127		2.9	18.6	27.3	7.32		421	
SZMW-1	07/29/2010	Storage	0.17	10.5	3	4.3	28.7	7.05		399	
SZMW-1	10/14/2010	Storage	0.087	10.5	1.4	10.5	25.8	7.3	-152	431	1.07
SZMW-1	10/22/2010	Recovery	0.121	7.3	0.42						
SZMW-1	10/27/2010	Recovery	0.098	7.3	0.53	7.3	25.9		-71	432	1.22
SZMW-1	11/09/2010	Recovery	0.051								
SZMW-1	01/28/2011	Injection	0.24				23.1	7.29	-129	354	3.79

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Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	02/11/2011	Injection	2	<0.1	7640	3800	4	3700	990	47800	<1	1.5	0.4	<0.5	6.3	110	<0.005	0.4	1.8	32.3
SZMW-1	02/15/2011	Storage	1	<0.1	6980	3960	29	3900	930	51000	1	4.2	0.7	0.7	34.3	8650	0.118	1.5	6	190
SZMW-1	02/23/2011	Storage	2	<0.1	7520	5330	<2	5200	1150	61700	1	5.1	0.2	0.8	<0.1	<10	<0.005	<0.3	0.3	<0.5
SZMW-1	03/03/2011	Recovery	2	<0.1	7170	5250	3	5000	980	62500	1	3	0.2	<0.5	20.2	2240	<0.005	1.6	179	47.5
SZMW-1	03/15/2011	Recovery	4	<0.1	7890	3510	3	4400	1690	60300	1	1.2	0.5	<0.5	13.4	900	<0.005	0.8	24.3	79
SZMW-1	03/23/2011	Recovery	6	<0.1	6570	2470	<2	5700	3080	79100	1	1.4	0.5	<0.5	17.8	1320	<0.005	1.6	12.4	69.8
SZMW-2	05/27/2010	Recovery	2	<0.1	8570	5760	<2	7500	1220	76600	2	2.2	0.2	<0.5	12.8	480	<0.005	<0.3	2.4	25.3
SZMW-2	05/28/2010	Recovery	2	<0.1	8570	5900	6	7500	1210	76800	2	2.3	0.2	<0.5	14.4	890	<0.005	<0.3	48.8	245
SZMW-2	07/21/2010	Injection	2	<0.1	10300	6470	<2	7100	1260	65900	2	2.2	0.2	<0.5	13	560	<0.005	<0.3	1.4	17.7
SZMW-2	07/29/2010	Storage	2	<0.1	11900	6630	<2	6700	1310	62000	2	2.1	0.1	<0.5	11.7	500	<0.005	<0.3	19.6	50
SZMW-2	10/14/2010	Storage	2	<0.1	11600	7090	3	6900	1310	66700	2	3.6	0.2	<0.5	13.6	1790	<0.005	<0.3	0.2	2.8
SZMW-2	10/22/2010	Recovery	2	<0.1	11000	6580	<2	7600	1290	66100	2	2.5	0.2	<0.5	13.4	780	<0.005	<0.3	0.3	1.9
SZMW-2	10/27/2010	Recovery	2	<0.1	10600	6520	2	7700	1320	64300	2	2.3	0.2	<0.5	13.4	690	<0.005	<0.3	4.1	17.3
SZMW-2	11/09/2010	Recovery	2	<0.1	5300	3340	<2	4800	800	67700	1	1.4	0.1	<0.5	8.9	450	<0.005	<0.3	1.3	8.9
SZMW-2	01/28/2011	Injection	2	<0.1	6830	3790	<2	4700	910	59600	1	1.1	0.1	<0.5	9.3	220	<0.005	<0.3	2.2	26
SZMW-2	02/11/2011	Injection	2	<0.1	7570	4300	<2	4200	970	54500	<1	1	0.1	<0.5	8.7	100	<0.005	0.6	37.4	22
SZMW-2	02/15/2011	Storage	2	<0.1	7110	4240	<2	4000	940	55500	<1	0.9	0.1	<0.5	8.5	100	<0.005	0.4	3	26.3
SZMW-2	02/23/2011	Storage	2	<0.1	7390	4810	3	5200	1010	60900	1	3	0.3	<0.5	18.1	2230	<0.005	0.6	1.5	40.3
SZMW-2	03/03/2011	Recovery	2	<0.1	6850	4600	<2	5400	960	65300	1	2.8	0.3	<0.5	14.4	1880	<0.005	<0.3	1.4	2.1
SZMW-2	03/15/2011	Recovery	3	<0.1	8870	5610	<2	6900	2720	67600	<1	0.8	0.2	<0.5	0.4	60	<0.005	<0.3	0.4	5.7
SZMW-2	03/23/2011	Recovery	2	<0.1	6520	4230	<2	5900	990	67300	1	1.6	0.2	<0.5	12.6	620	<0.005	<0.3	<0.2	7.2

FLORIDA GEOLOGICAL SURVEY

Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ga	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	02/11/2011	Injection	0.03	0.02	1.58	0.2	48	2.33	200	0.03	0.05	<0.005	27.1	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.06
SZMW-1	02/15/2011	Storage	0.06	0.06	2.34	0.3	47	2.38	210	0.119	0.1	<0.005	23.6	<0.01	<0.01	<0.2	0.13	<0.001	0.2	0.46
SZMW-1	02/23/2011	Storage	0.03	0.03	3.19	0.3	55	2.89	240	<0.003	0.02	0.17	23.5	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	<0.01
SZMW-1	03/03/2011	Recovery	0.04	0.04	2.64	<0.2	57	2.86	240	0.017	0.06	0.013	20	<0.01	<0.01	<0.2	0.07	<0.001	6.6	0.11
SZMW-1	03/15/2011	Recovery	0.02	0.03	1.72	0.3	47	6.01	250	0.009	0.02	0.006	32.2	<0.01	<0.01	<0.2	0.1	<0.001	0.1	<0.01
SZMW-1	03/23/2011	Recovery	0.02	0.05	1.09	<0.2	46	10.1	360	0.012	0.02	0.007	17.9	<0.01	<0.01	<0.2	0.06	<0.001	0.4	<0.01
SZMW-2	05/27/2010	Recovery	0.02	0.07	1.21	<0.2	61	3.13	320	0.008	0.04	<0.005	2.5	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.07
SZMW-2	05/28/2010	Recovery	0.02	0.07	1.25	<0.2	59	3.15	320	0.01	0.03	<0.005	2.4	<0.01	<0.01	<0.2	0.02	<0.001	0.5	0.08
SZMW-2	07/21/2010	Injection	0.02	0.07	0.33	0.5	93	3.16	270	0.009	0.04	<0.005	1.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.02
SZMW-2	07/29/2010	Storage	0.02	0.06	0.39	0.3	103	2.9	240	0.008	0.03	<0.005	2.6	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.01
SZMW-2	10/14/2010	Storage	0.03	0.06	0.16	0.5	89	3.18	240	0.008	0.04	<0.005	2.6	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01
SZMW-2	10/22/2010	Recovery	0.02	0.07	0.17	0.5	94	3.14	260	0.005	0.04	<0.005	2.5	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01
SZMW-2	10/27/2010	Recovery	0.02	0.07	0.15	0.4	89	3.14	270	0.007	0.04	<0.005	2.1	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01
SZMW-2	11/09/2010	Recovery	0.01	0.05	0.12	<0.2	48	2.35	280	0.005	0.02	<0.005	1.2	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01
SZMW-2	01/28/2011	Injection	0.02	0.06	0.76	<0.2	49	2.48	240	0.005	0.02	<0.005	14	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	0.01
SZMW-2	02/11/2011	Injection	0.02	0.03	1.5	0.4	49	2.15	210	0.004	0.02	<0.005	33.3	<0.01	<0.01	<0.2	0.11	<0.001	0.7	0.09
SZMW-2	02/15/2011	Storage	0.02	0.03	1.47	0.3	44	1.98	220	0.003	0.01	<0.005	27.3	<0.01	<0.01	<0.2	0.09	<0.001	<0.1	0.03
SZMW-2	02/23/2011	Storage	0.03	0.04	1.67	0.3	56	2.78	240	0.009	0.04	<0.005	17.9	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	<0.01
SZMW-2	03/03/2011	Recovery	0.03	0.05	0.49	0.3	56	2.81	260	0.009	0.04	<0.005	10.7	<0.01	<0.01	<0.2	0.04	<0.001	0.1	<0.01
SZMW-2	03/15/2011	Recovery	0.01	0.05	0.54	<0.2	183	3.07	300	0.022	0.02	<0.005	3.5	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01
SZMW-2	03/23/2011	Recovery	0.01	0.06	0.19	<0.2	52	2.81	270	0.007	0.02	<0.005	7.8	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01

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Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Te	I	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	02/11/2011	Injection	<0.1	4	0.022	18	0.008	0.014	0.002	0.009	0.002	0.001	0.003	<0.001	0.003	<0.001	0.004
SZMW-1	02/15/2011	Storage	<0.1	4	0.03	33	0.045	0.078	0.013	0.05	0.013	0.004	0.011	0.002	0.013	0.003	0.011
SZMW-1	02/23/2011	Storage	<0.1	7	0.036	7.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/03/2011	Recovery	<0.1	11	0.03	27.8	0.003	0.004	<0.001	0.005	<0.001	0.002	<0.001	<0.001	0.002	<0.001	0.002
SZMW-1	03/15/2011	Recovery	<0.1	5	0.218	17.2	0.003	0.003	<0.001	0.003	0.001	0.001	0.001	<0.001	<0.001	<0.001	0.001
SZMW-1	03/23/2011	Recovery	<0.1	6	0.351	16.2	0.003	0.004	<0.001	0.005	<0.001	0.001	<0.001	<0.001	0.001	<0.001	0.001
SZMW-2	05/27/2010	Recovery	<0.1	8	0.027	24.9	<0.001	<0.001	<0.001	0.002	<0.001	0.002	0.001	<0.001	<0.001	<0.001	0.001
SZMW-2	05/28/2010	Recovery	<0.1	8	0.027	27.5	0.002	0.004	<0.001	0.004	<0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001
SZMW-2	07/21/2010	Injection	<0.1	15	0.022	26.3	0.002	0.004	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002
SZMW-2	07/29/2010	Storage	<0.1	16	0.02	24.5	0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002
SZMW-2	10/14/2010	Storage	<0.1	26	0.027	30.9	0.001	0.002	<0.001	0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	0.001
SZMW-2	10/22/2010	Recovery	<0.1	21	0.022	26.5	<0.001	0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	10/27/2010	Recovery	<0.1	20	0.022	26.4	0.003	0.006	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	11/09/2010	Recovery	<0.1	4	0.018	21.1	0.003	0.003	<0.001	0.001	0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001
SZMW-2	01/28/2011	Injection	<0.1	4	0.019	21.5	0.002	0.002	<0.001	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001
SZMW-2	02/11/2011	Injection	<0.1	4	0.012	17.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002
SZMW-2	02/15/2011	Storage	<0.1	4	0.011	16.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
SZMW-2	02/23/2011	Storage	<0.1	8	0.022	27.6	0.002	0.003	<0.001	0.003	<0.001	0.001	0.001	<0.001	<0.001	<0.001	0.001
SZMW-2	03/03/2011	Recovery	<0.1	10	0.027	27.7	0.001	0.002	<0.001	0.002	<0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001
SZMW-2	03/15/2011	Recovery	<0.1	5	0.027	17	0.003	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	03/23/2011	Recovery	<0.1	7	0.024	25	0.003	0.002	<0.001	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001

FLORIDA GEOLOGICAL SURVEY

Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Tm	Yb	Lu	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	02/11/2011	Injection	<0.001	0.006	0.002	0.001	<0.001	<0.02	0.094	<0.002	<0.3	<0.002	<0.2	0.002	0.05	<0.3	0.002
SZMW-1	02/15/2011	Storage	0.002	0.012	0.002	0.002	<0.001	<0.02	0.067	<0.002	<0.3	<0.002	<0.2	0.005	0.29	<0.3	0.01
SZMW-1	02/23/2011	Storage	<0.001	0.002	<0.001	0.001	0.002	3.15	0.049	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.002
SZMW-1	03/03/2011	Recovery	<0.001	0.004	<0.001	0.001	<0.001	<0.02	0.038	<0.002	<0.3	<0.002	<0.2	<0.001	14.1	<0.3	0.002
SZMW-1	03/15/2011	Recovery	<0.001	0.003	<0.001	<0.001	<0.001	<0.02	0.06	<0.002	<0.3	<0.002	<0.2	<0.001	0.63	<0.3	0.002
SZMW-1	03/23/2011	Recovery	<0.001	0.001	<0.001	0.001	<0.001	0.02	0.026	<0.002	<0.3	<0.002	<0.2	<0.001	0.67	<0.3	0.002
SZMW-2	05/27/2010	Recovery	<0.001	0.002	<0.001	0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001
SZMW-2	05/28/2010	Recovery	<0.001	0.001	<0.001	<0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	0.005	2.91	<0.3	0.002
SZMW-2	07/21/2010	Injection	<0.001	0.004	<0.001	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001
SZMW-2	07/29/2010	Storage	<0.001	0.005	0.001	0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	0.15	<0.3	<0.001
SZMW-2	10/14/2010	Storage	<0.001	0.003	<0.001	0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001
SZMW-2	10/22/2010	Recovery	<0.001	0.003	<0.001	0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001
SZMW-2	10/27/2010	Recovery	<0.001	0.002	<0.001	0.002	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.001
SZMW-2	11/09/2010	Recovery	<0.001	0.001	<0.001	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.001
SZMW-2	01/28/2011	Injection	<0.001	0.002	<0.001	<0.001	<0.001	<0.02	0.033	<0.002	<0.3	<0.002	<0.2	<0.001	0.08	<0.3	<0.001
SZMW-2	02/11/2011	Injection	<0.001	0.003	<0.001	<0.001	<0.001	<0.02	0.064	<0.002	<0.3	<0.002	<0.2	<0.001	2.74	<0.3	<0.001
SZMW-2	02/15/2011	Storage	<0.001	0.004	<0.001	<0.001	<0.001	<0.02	0.048	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001
SZMW-2	02/23/2011	Storage	<0.001	0.003	<0.001	0.001	<0.001	<0.02	0.036	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	0.002
SZMW-2	03/03/2011	Recovery	<0.001	0.002	<0.001	0.001	<0.001	<0.02	0.025	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	0.001
SZMW-2	03/15/2011	Recovery	<0.001	<0.001	<0.001	0.001	<0.001	0.04	0.014	<0.002	<0.3	0.023	<0.2	<0.001	0.06	<0.3	<0.001
SZMW-2	03/23/2011	Recovery	<0.001	0.002	<0.001	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	0.002

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Deland ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	U	Sulfate	Sulfide	Chloride	Temp	pH	ORP	Conductivity	DO
			µg/L	mg/L	mg/L	mg/L	°C	std. units	mV	µS/cm	mg/L
SZMW-1	02/11/2011	Injection	0.312		2.8		21.2	7.07	-137	402	5.44
SZMW-1	02/15/2011	Storage	0.273		1						
SZMW-1	02/23/2011	Storage	0.241				22.9	7.09	-210	410	0.78
SZMW-1	03/03/2011	Recovery	0.284		0.35		21.83	7.68	-215.7	414	0.3
SZMW-1	03/15/2011	Recovery	0.331		0.38		24.67	7.79	-156.9	403	1.03
SZMW-1	03/23/2011	Recovery	0.256		0.66		24.38	7.59	-107	481	1.43
SZMW-2	05/27/2010	Recovery	0.019								
SZMW-2	05/28/2010	Recovery	0.02	5.8							
SZMW-2	07/21/2010	Injection	0.032	10.4		14.6	23.9	7.21		435	
SZMW-2	07/29/2010	Storage	0.034	8.3	4.5	18	24.3	7.26		419	
SZMW-2	10/14/2010	Storage	0.05	8.3	0.59	16.6	25.1	7.18	-84	424	0.96
SZMW-2	10/22/2010	Recovery	0.022	5.9	0.4						
SZMW-2	10/27/2010	Recovery	0.019	5.9	0.55	14	24.4	7.39	-70	429	0.96
SZMW-2	11/09/2010	Recovery	0.013								
SZMW-2	01/28/2011	Injection	0.066				23.1	7.37	-81		0.91
SZMW-2	02/11/2011	Injection	0.09		1.6		21.3	7.07	-1	392	0.74
SZMW-2	02/15/2011	Storage	0.104		1						
SZMW-2	02/23/2011	Storage	0.163				23.6	7.47	-142	403	1.05
SZMW-2	03/03/2011	Recovery	0.097		0.33		21.8	7.62	-224	414	0.24
SZMW-2	03/15/2011	Recovery	1.02		0.36		22.72	7.41	-132	422	0.09
SZMW-2	03/23/2011	Recovery	0.03		0.26		22.69	7.42	-85.7	428	0.28

FLORIDA GEOLOGICAL SURVEY

Destin ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	03/04/2011	Injection	<1	<0.1	7650	727	51	4400	290	1500	<1	0.6	0.2	<0.5	12.3	370	0.037	<0.3	<0.2	0.7	0.01	<0.01
SZMW-1	03/15/2011	Recovery	<1	<0.1	7700	750	69	4600	310	1500	<1	1.3	0.1	<0.5	12.1	380	0.041	<0.3	0.2	0.7	0.02	0.01
SZMW-1	04/01/2011	Injection	<1	<0.1	7580	721	50	4500	290	1400	<1	0.8	0.2	<0.5	11.6	380	0.044	<0.3	<0.2	<0.5	0.02	<0.01
SZMW-1	04/11/2011	Injection	<1	<0.1	7870	778	44	4600	310	1600	<1	0.6	0.1	<0.5	12.5	410	0.042	<0.3	<0.2	<0.5	0.01	0.01
SZMW-1	04/19/2011	Storage	<1	<0.1	8010	805	52	4500	310	1600	<1	0.7	0.1	<0.5	12.7	420	0.034	<0.3	<0.2	<0.5	0.01	<0.01
SZMW-2	03/04/2011	Injection	<1	<0.1	11100	749	70	4500	360	1500	<1	0.7	0.3	<0.5	15.8	460	0.134	<0.3	0.2	1.7	0.04	0.02
SZMW-2	03/15/2011	Recovery	<1	<0.1	10700	735	87	4700	350	1500	<1	1.4	0.3	<0.5	15.8	450	0.157	<0.3	<0.2	0.7	0.03	0.01
SZMW-2	04/01/2011	Injection	<1	<0.1	12400	789	98	4700	370	1400	<1	1.2	0.4	<0.5	16.5	460	0.172	<0.3	<0.2	1.9	0.05	0.01
SZMW-2	04/11/2011	Injection	<1	<0.1	12900	818	73	4600	390	1600	<1	0.8	0.3	<0.5	17.4	480	0.158	<0.3	<0.2	1.4	0.05	0.01
SZMW-2	04/19/2011	Storage	<5	<0.5	8680	672	125	4200	280	<4000	<5	2.8	<0.5	<3	13.6	370	0.118	<2	<1	<3	0.05	<0.05

REPORT OF INVESTIGATION NO. 112

Destin ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I	Cs
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	03/04/2011	Injection	0.42	0.4	42	0.628	10.2	0.132	0.03	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	4	0.018
SZMW-1	03/15/2011	Recovery	0.25	<0.2	45	0.699	10.4	0.121	0.02	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	4	0.024
SZMW-1	04/01/2011	Injection	0.25	<0.2	43	0.644	9.98	0.126	0.01	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	4	0.02
SZMW-1	04/11/2011	Injection	1.07	<0.2	48	0.671	10.8	0.137	0.01	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	4	0.021
SZMW-1	04/19/2011	Storage	0.72	<0.2	47	0.644	11.2	0.122	0.03	0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	4	0.021
SZMW-2	03/04/2011	Injection	0.09	<0.2	53	0.644	9.48	0.045	0.04	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	4	0.019
SZMW-2	03/15/2011	Recovery	0.09	<0.2	48	0.605	9.13	0.062	0.03	0.006	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	4	0.023
SZMW-2	04/01/2011	Injection	0.1	<0.2	58	0.586	9.23	0.053	0.05	0.008	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	4	0.023
SZMW-2	04/11/2011	Injection	0.14	<0.2	59	0.662	9.87	0.056	0.03	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	4	0.021
SZMW-2	04/19/2011	Storage	<0.1	<1	49	0.512	7.9	0.047	0.05	<0.03	<0.5	<0.05	<0.05	<1	<0.05	<0.005	<0.5	<0.05	<0.5	5	0.02

FLORIDA GEOLOGICAL SURVEY

Destin ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf	Ta
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	03/04/2011	Injection	7.4	0.077	0.229	0.029	0.107	0.014	0.003	0.026	0.003	0.018	<0.001	0.015	<0.001	0.01	0.002	<0.001	<0.001
SZMW-1	03/15/2011	Recovery	7.5	0.087	0.248	0.026	0.112	0.015	0.003	0.018	0.002	0.019	<0.001	0.012	<0.001	0.007	0.001	<0.001	0.001
SZMW-1	04/01/2011	Injection	7.2	0.082	0.25	0.028	0.139	0.018	0.006	0.019	0.004	0.022	0.01	0.017	<0.001	0.007	0.001	<0.001	<0.001
SZMW-1	04/11/2011	Injection	7.6	0.077	0.229	0.021	0.166	0.026	0.002	0.023	0.005	0.025	<0.001	0.014	<0.001	0.014	0.002	<0.001	<0.001
SZMW-1	04/19/2011	Storage	7.8	0.076	0.247	0.022	0.112	0.016	0.007	0.024	0.004	0.021	<0.001	0.016	<0.001	0.013	0.002	<0.001	0.001
SZMW-2	03/04/2011	Injection	13.8	0.052	0.136	0.019	0.077	0.017	0.004	0.014	0.002	0.009	<0.001	0.005	<0.001	0.005	<0.001	<0.001	<0.001
SZMW-2	03/15/2011	Recovery	13	0.071	0.166	0.024	0.077	0.011	0.004	0.014	0.002	0.007	<0.001	0.005	<0.001	0.007	<0.001	0.003	<0.001
SZMW-2	04/01/2011	Injection	14.4	0.08	0.183	0.022	0.1	0.019	0.002	0.015	0.003	0.014	<0.001	0.004	<0.001	0.005	<0.001	<0.001	<0.001
SZMW-2	04/11/2011	Injection	15.2	0.061	0.148	0.017	0.066	0.011	0.001	0.017	0.003	0.013	<0.001	0.007	<0.001	0.006	<0.001	<0.001	<0.001
SZMW-2	04/19/2011	Storage	13	0.188	0.305	0.03	0.105	0.023	<0.005	0.015	<0.005	0.01	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005

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Destin ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Chloride	Temp	pH	ORP
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	°C	std. units	mV
SZMW-1	03/04/2011	Injection	0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.004	0.021	7	9.6	22.8	4.87	-68
SZMW-1	03/15/2011	Recovery	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	0.008	0.028			22.91	4.89	-18.2
SZMW-1	04/01/2011	Injection	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.003	0.023	<5	9.1	22.82	4.72	-131.6
SZMW-1	04/11/2011	Injection	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.003	0.023	<5	9.2	22.9	5.56	-237.5
SZMW-1	04/19/2011	Storage	<0.02	<0.001	<0.002	<0.3	0.003	<0.2	<0.001	0.02	<0.3	0.005	0.024			23.18	4.93	-58.3
SZMW-2	03/04/2011	Injection	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	0.003	0.022	8	12.8	22.7	4.86	-42
SZMW-2	03/15/2011	Recovery	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.008	0.029			22.89	4.85	-15.6
SZMW-2	04/01/2011	Injection	<0.02	<0.001	<0.002	<0.3	0.003	<0.2	<0.001	0.03	<0.3	0.007	0.027	6	14	22.82	4.73	
SZMW-2	04/11/2011	Injection	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.008	0.025	5.8	15	22.8	5.5	-232.9
SZMW-2	04/19/2011	Storage	<0.1	<0.005	<0.01	<2	<0.01	<1	<0.005	0.15	<2	0.02	0.025			23.19	4.98	-87.7

FLORIDA GEOLOGICAL SURVEY

Destin ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Conductivity	DO	Turbidity	
			µS/cm	mg/L	NTU	
SZMW-1	03/04/2011	Injection	54	0.3	1.21	
SZMW-1	03/15/2011	Recovery	53	4.2	3.1	
SZMW-1	04/01/2011	Injection	54	0.09	2.36	
SZMW-1	04/11/2011	Injection	46	2.87	1.57	
SZMW-1	04/19/2011	Storage	60	4.4	1.99	
SZMW-2	03/04/2011	Injection	70	0.3	1.14	
SZMW-2	03/15/2011	Recovery	61	4.9	1.32	
SZMW-2	04/01/2011	Injection	76	0.14	1.78	
SZMW-2	04/11/2011	Injection	66	3	1.57	
SZMW-2	04/19/2011	Storage	71	2.6	0.84	

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Hillsboro Plant #9 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
FAMW	08/06/2008	Storage	<10	<1	415000	81700	<20	7500	20400	112000	<10	<1	<1	<5	<1	<100	0.061	<3	<2	<5	<0.1
FAMW	10/01/2008	Storage	<10	<1	452000	80800	<20	7000	20000	104000	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW	12/03/2008	Storage	<10	<1	495000	85600	<20	7000	21700	105000	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW	04/21/2009	Recovery	<10	<1	345000	82700	<20	7600	20900	86100	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW	07/01/2009	Storage	<10	<1	582000	102000	<20	7100	26700	101000	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW	10/28/2009	Storage	26	<0.1	611000	90200	<2	7600	34700	95700	3	2.5	<0.1	<0.5	1.1	10	0.029	1.1	2.4	2.4	<0.01
FAMW	11/04/2009	Storage	28	<0.1	605000	86900	<2	7500	33900	91000	3	2.4	0.3	0.8	1	20	0.028	1	2.3	2.4	<0.01
FAMW	08/04/2010	Storage	26	<0.1	638000	86400	<2	7100	30100	97200	2	1.3	<0.1	<0.5	0.6	<10	<0.005	0.5	5	8	0.01
FAMW	09/01/2010	Storage	25	<0.1	597000	83800	5	7400	29300	94000	2	1.3	<0.1	<0.5	0.5	<10	<0.005	0.5	4.8	7.6	0.02
FAMW	11/02/2010	Storage	16	<0.1	620000	89900	<2	3800	13300	98500	<1	0.6	<0.1	<0.5	0.3	<10	<0.005	0.3	3.5	1.1	0.01
FAMW	02/02/2011	Storage	<1	<0.1	6860	4490	<2	6000	920	102000	<1	1.2	0.2	<0.5	10.5	570	<0.005	<0.3	0.6	5.9	0.01

FLORIDA GEOLOGICAL SURVEY

Hillsboro Plant #9 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
FAMW	08/06/2008	Storage	<0.1	<0.3	3.8	2470	7.88	6480	0.036	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	10
FAMW	10/01/2008	Storage	<0.1	0.81	3.8	2500	7.74	6650	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	10
FAMW	12/03/2008	Storage	<0.1	0.6	2.4	2750	8.14	6900	0.031	0.11	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	10
FAMW	04/21/2009	Recovery	<0.1	<0.3	<2	1750	8	5520	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
FAMW	07/01/2009	Storage	<0.1	0.37	4.8	3280	9.64	6800	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	12
FAMW	10/28/2009	Storage	0.01	1.2	4.9	3650	9.56	7190	0.018	0.01	<0.005	0.3	0.01	0.02	<0.2	0.02	<0.001	<0.1	0.01	0.3	15
FAMW	11/04/2009	Storage	0.01	1.34	4.4	3660	9.59	6950	0.017	0.01	<0.005	0.2	<0.01	0.01	<0.2	0.02	<0.001	<0.1	0.01	0.4	12
FAMW	08/04/2010	Storage	0.01	<0.03	<0.2	3150	9.56	7130	0.025	<0.01	<0.005	0.2	0.01	0.03	<0.2	0.09	<0.001	<0.1	0.13	0.2	6
FAMW	09/01/2010	Storage	0.05	<0.03	<0.2	3190	9.34	6790	0.024	<0.01	0.009	0.2	<0.01	0.03	<0.2	0.05	<0.001	<0.1	0.09	<0.1	6
FAMW	11/02/2010	Storage	0.14	0.44	1.4	3600	5.57	6930	0.017	0.01	<0.005	<0.1	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.03	0.2	6
FAMW	02/02/2011	Storage	0.05	0.23	<0.2	54	2.78	7610	0.005	0.03	<0.005	10.2	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	8

REPORT OF INVESTIGATION NO. 112

Hillsboro Plant #9 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
FAMW	08/06/2008	Storage	0.028	38	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW	10/01/2008	Storage	0.032	35.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW	12/03/2008	Storage	0.036	33.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW	04/21/2009	Recovery	0.032	22.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW	07/01/2009	Storage	0.034	15.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW	10/28/2009	Storage	0.039	19.1	0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW	11/04/2009	Storage	0.037	19.3	0.001	0.002	<0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW	08/04/2010	Storage	0.039	17.8	0.003	<0.001	0.001	<0.001	0.006	0.003	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001
FAMW	09/01/2010	Storage	0.033	17.6	0.003	<0.001	<0.001	0.019	0.016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW	11/02/2010	Storage	0.026	11.6	0.002	0.002	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW	02/02/2011	Storage	0.021	24.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001

FLORIDA GEOLOGICAL SURVEY

Hillsboro Plant #9 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
FAMW	08/06/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	0.024	<2	<0.01	<0.1	<3	<0.01	0.027
FAMW	10/01/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	0.034	<2	<0.01	<0.1	<3	<0.01	0.026
FAMW	12/03/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	0.038	<2	<0.01	<0.1	<3	<0.01	0.035
FAMW	04/21/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	0.024	<2	<0.01	<0.1	<3	<0.01	0.01
FAMW	07/01/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	0.034	<2	<0.01	<0.1	<3	<0.01	0.014
FAMW	10/28/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.001	0.02	<0.3	<0.001	0.014
FAMW	11/04/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.001	0.02	<0.3	<0.001	0.015
FAMW	08/04/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	0.3	0.018	0.08	<0.3	0.001	0.013
FAMW	09/01/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	0.3	0.019	0.07	<0.3	0.002	0.014
FAMW	11/02/2010	Storage	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.71	<0.3	<0.001	0.008
FAMW	02/02/2011	Storage	0.002	<0.001	<0.02	0.017	<0.002	<0.3	0.004	<0.2	<0.001	0.04	<0.3	0.001	0.034

REPORT OF INVESTIGATION NO. 112

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
CZMW-1	03/02/2010	Injection	3	<0.1	11900	9580	5	7400	1600	43700	3	1.9	0.3	<0.5	7.4	240	0.012	<0.3	<0.2	42.1	0.03	0.03
CZMW-1	03/16/2010	Injection	2	<0.1	11800	9500	6	7300	1600	43000	3	1.9	0.3	<0.5	7.2	240	0.013	<0.3	<0.2	43.4	0.01	0.02
CZMW-1	03/30/2010	Injection	2	<0.1	11600	9420	4	7300	1480	44500	3	1.9	0.3	<0.5	6.1	120	0.013	<0.3	<0.2	26.3	0.01	0.02
CZMW-1	04/06/2010	Injection	2	<0.1	11600	9350	4	7300	1480	43200	3	1.9	0.3	<0.5	5.9	110	0.01	<0.3	<0.2	15.1	<0.01	0.03
CZMW-1	04/13/2010	Storage	2	<0.1	11500	9530	4	7400	1510	42300	3	1.7	0.4	<0.5	6.4	160	0.018	<0.3	<0.2	34	0.02	0.01
CZMW-1	04/20/2010	Storage	2	<0.1	11800	9640	4	7300	1520	41500	3	1.9	0.4	<0.5	7.5	170	0.009	<0.3	<0.2	22.6	0.01	0.02
LF-ASR-1	04/08/2010	Storage	2	<0.1	20100	7990	<2	6100	1000	38400	2	1.9	1.8	<0.5	4.9	60	0.042	1.3	3	3.1	0.03	<0.01
LF-ASR-1	04/15/2010	Storage	2	<0.1	20000	9440	5	6100	1060	41600	2	2.4	2.4	<0.5	45.9	240	0.311	2.9	3.6	3.3	0.02	<0.01
LF-ASR-1	04/20/2010	Storage	2	<0.1	19400	9640	<2	6200	1040	42900	2	2.1	1.6	<0.5	108	480	0.234	2.3	1.6	3.2	0.02	0.01
LF-ASR-1	06/24/2010	Storage	1	<0.1	24700	11300	<2	6000	1330	41900	2	1.2	9.1	<0.5	4.6	190	0.024	13.4	0.6	4.4	0.08	0.02
LF-ASR-1	08/17/2010	Storage	2	<0.1	22000	10300	<2	5500	1000	43700	1	1.2	1.1	<0.5	83.3	50	0.243	2.9	2.2	9.3	0.03	0.01
LF-ASR-1	08/24/2010	Storage	2	<0.1	21300	10800	3	5700	970	44100	1	1.4	0.9	<0.5	70.2	1190	0.042	4.4	1	10.3	0.03	0.03
LF-ASR-1	08/31/2010	Storage	2	<0.1	20700	11600	<2	5500	1000	45500	1	1.7	2.1	<0.5	45.3	530	<0.005	1.9	0.8	6.9	0.03	0.03
LF-ASR-1	09/07/2010	Storage	1	<0.1	19600	11300	<2	5100	970	45900	<1	1.2	1.2	<0.5	29.5	410	<0.005	1.8	0.9	10	0.03	0.02
LF-ASR-1	09/09/2010	Storage	1	<0.1	20900	11500	<2	5100	1000	45000	<1	1.2	1.1	<0.5	24.7	340	<0.005	3.5	4.7	20.7	0.03	0.03
LF-ASR-1	09/21/2010	Recovery	2	<0.1	22700	11800	<2	6600	1130	44800	1	1	3.2	<0.5	7.9	160	<0.005	2.8	0.7	3	0.08	0.02
LF-ASR-1	09/28/2010	Recovery	2	<0.1	24600	12400	2	6900	1220	43100	1	1	5	<0.5	4.1	120	0.007	3.7	1.2	3.3	0.1	0.01
LF-ASR-1	10/05/2010	Recovery	2	<0.1	27200	12700	<2	7300	1380	41900	1	1.1	4.3	<0.5	3.2	100	0.009	4	1.4	3.9	0.1	0.02
LF-ASR-1	10/19/2010	Storage	2	<0.1	29400	13000	<2	7400	1440	42700	2	1	3.5	<0.5	2.7	80	0.011	5.3	0.5	3	0.1	0.02
LF-ASR-1	10/26/2010	Storage	2	<0.1	28800	12500	<2	7600	1370	40800	2	1.1	15.8	<0.5	4.5	60	0.112	13.9	0.6	1.7	0.08	0.02
LF-ASR-1	02/22/2011	Storage	<1	<0.1	14200	6040	<2	3800	630	38300	<1	0.8	0.5	<0.5	10.3	70	0.02	0.9	1.4	2.2	0.02	0.02
LF-ASR-1	03/08/2011	Storage	1	<0.1	22800	12800	<2	6100	1020	46200	1	1.4	1.2	<0.5	156	1040	0.259	4.1	0.7	2.8	0.04	0.06
LF-ASR-1	03/22/2011	Storage	1	<0.1	22000	15700	3	6300	990	52300	1	1.6	2.6	<0.5	52.6	360	0.024	1.8	0.3	0.6	0.02	0.04
LF-ASR-1	04/05/2011	Storage	2	<0.1	22700	14900	2	5900	1020	48100	1	1.9	1.4	<0.5	28.7	430	0.04	10.4	9.6	49.6	0.04	0.04
LF-ASR-1	04/12/2011	Recovery	3	<0.1	12700	11300	4	6900	1290	41700	1	0.7	0.2	<0.5	10.3	150	0.028	0.6	<0.2	4.5	0.01	0.05
LF-ASR-1	04/19/2011	Recovery	2	<0.1	23800	13400	5	5700	1140	43400	1	0.9	4	<0.5	5.4	190	0.098	3.8	3	7	0.09	0.01
LF-ASR-1	05/03/2011	Recovery	2	<0.1	27800	13300	<2	5900	1350	42000	1	0.9	3.1	<0.5	3.6	80	0.149	6.2	1.8	13	0.09	0.02
LF-ASR-1	05/17/2011	Recovery	2	<0.1	31200	13400	<2	5900	1460	41700	1	1	2.2	<0.5	3	100	0.11	5.3	0.5	5.6	0.1	0.02
LF-ASR-1	05/31/2011	Recovery	2	<0.1	35700	14100	4	6200	1640	41400	1	1.1	1.7	<0.5	2.7	110	0.128	22.4	12.8	182	0.1	0.03
LFMW-1	06/24/2010	Storage	1	<0.1	28900	11800	4	6200	1520	43800	2	1.1	1.8	<0.5	1.6	70	<0.005	8.4	<0.2	13.6	0.09	0.02
LFMW-1	06/29/2010	Injection	1	<0.1	22100	9810	3	5700	1130	39600	1	1	22.6	<0.5	1.6	20	0.574	23.8	0.5	55.1	0.08	0.03
LFMW-1	07/13/2010	Injection	<1	<0.1	19600	8980	3	6000	960	39900	2	1.1	6.4	<0.5	0.3	<10	0.07	7.6	0.3	46.1	0.06	0.03
LFMW-1	07/27/2010	Injection	1	<0.1	18100	8430	<2	5300	950	39100	1	0.7	6	<0.5	0.4	<10	0.017	7.1	0.5	58.3	0.05	0.02

FLORIDA GEOLOGICAL SURVEY

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I	Cs
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
CZMW-1	03/02/2010	Injection	0.69	<0.2	52	3.11	220	<0.003	<0.01	<0.005	13	<0.01	<0.01	<0.2	0.05	<0.001	<0.1	0.02	<0.1	3	0.043
CZMW-1	03/16/2010	Injection	0.5	<0.2	51	2.94	210	<0.003	<0.01	<0.005	7.1	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	3	0.034
CZMW-1	03/30/2010	Injection	0.4	0.4	49	2.69	200	<0.003	<0.01	<0.005	6.4	0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	3	0.028
CZMW-1	04/06/2010	Injection	0.36	0.2	48	2.68	200	<0.003	<0.01	<0.005	5.9	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	3	0.024
CZMW-1	04/13/2010	Storage	0.82	<0.2	50	2.65	200	<0.003	<0.01	<0.005	17.2	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.03	<0.1	3	0.023
CZMW-1	04/20/2010	Storage	1.25	<0.2	50	2.71	200	<0.003	<0.01	<0.005	21.2	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.04	<0.1	3	0.021
LF-ASR-1	04/08/2010	Storage	1.46	0.6	74	1.73	570	<0.003	0.06	<0.005	86.6	<0.01	<0.01	<0.2	0.31	<0.001	<0.1	0.81	<0.1	4	0.018
LF-ASR-1	04/15/2010	Storage	5.32	0.4	93	1.88	600	0.004	0.07	<0.005	148	<0.01	<0.01	<0.2	0.55	<0.001	0.1	1.06	<0.1	11	0.022
LF-ASR-1	04/20/2010	Storage	19.4	<0.2	86	1.84	580	0.003	0.06	<0.005	138	<0.01	<0.01	<0.2	0.51	<0.001	<0.1	0.62	<0.1	16	0.017
LF-ASR-1	06/24/2010	Storage	30.6	<0.2	85	1.97	610	0.005	0.03	<0.005	396	0.01	<0.01	<0.2	1.66	<0.001	<0.1	1.06	<0.1	9	0.021
LF-ASR-1	08/17/2010	Storage	3.17	<0.2	86	1.94	640	<0.003	<0.01	<0.005	151	<0.01	<0.01	<0.2	0.42	<0.001	<0.1	1.14	<0.1	2	0.025
LF-ASR-1	08/24/2010	Storage	25.5	<0.2	103	1.81	640	0.005	<0.01	<0.005	234	<0.01	<0.01	<0.2	0.58	<0.001	<0.1	0.96	<0.1	5	0.017
LF-ASR-1	08/31/2010	Storage	22.8	<0.2	94	1.77	640	0.006	<0.01	<0.005	271	0.01	<0.01	<0.2	0.58	<0.001	<0.1	0.34	0.1	4	0.015
LF-ASR-1	09/07/2010	Storage	15.1	<0.2	77	1.75	620	0.005	<0.01	<0.005	247	0.01	<0.01	<0.2	0.54	<0.001	<0.1	0.28	<0.1	3	0.016
LF-ASR-1	09/09/2010	Storage	20	<0.2	87	1.93	640	0.005	<0.01	<0.005	347	0.02	<0.01	<0.2	0.82	<0.001	<0.1	0.33	<0.1	5	0.014
LF-ASR-1	09/21/2010	Recovery	35.8	0.9	64	1.97	610	0.005	0.05	<0.005	433	0.01	<0.01	<0.2	1.66	<0.001	<0.1	1.61	<0.1	15	0.015
LF-ASR-1	09/28/2010	Recovery	41.9	0.9	66	1.94	570	0.005	0.03	<0.005	444	0.01	<0.01	<0.2	1.63	<0.001	<0.1	1.92	<0.1	11	0.015
LF-ASR-1	10/05/2010	Recovery	44.3	0.8	80	2.16	610	0.004	0.03	<0.005	404	0.01	<0.01	<0.2	1.59	<0.001	<0.1	0.97	<0.1	11	0.017
LF-ASR-1	10/19/2010	Storage	44.4	0.8	87	2.14	560	0.004	0.02	<0.005	372	0.01	<0.01	<0.2	1.48	<0.001	<0.1	0.57	<0.1	9	0.018
LF-ASR-1	10/26/2010	Storage	33.7	0.9	74	2.03	550	0.005	0.03	<0.005	325	0.01	<0.01	<0.2	1.29	<0.001	<0.1	1.82	<0.1	10	0.018
LF-ASR-1	02/22/2011	Storage	0.54	0.4	37	1.27	550	0.003	0.02	0.005	27.1	0.01	<0.01	<0.2	0.05	<0.001	<0.1	0.23	<0.1	5	0.012
LF-ASR-1	03/08/2011	Storage	16.6	<0.2	135	1.93	660	<0.003	0.05	<0.005	211	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	1.41	<0.1	17	0.015
LF-ASR-1	03/22/2011	Storage	21.5	0.4	125	1.75	700	0.01	0.16	<0.005	220	0.01	<0.01	<0.2	0.35	0.002	0.1	0.43	<0.1	20	0.013
LF-ASR-1	04/05/2011	Storage	19.9	<0.2	97	1.9	660	0.004	0.07	0.005	292	0.01	<0.01	<0.2	0.33	<0.001	0.3	0.21	<0.1	18	0.011
LF-ASR-1	04/12/2011	Recovery	2.56	<0.2	52	2.4	200	<0.003	0.01	<0.005	28.4	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	0.17	<0.1	10	0.014
LF-ASR-1	04/19/2011	Recovery	43.3	<0.2	68	2.03	620	0.003	0.02	<0.005	498	0.01	<0.01	<0.2	0.65	<0.001	<0.1	1.65	<0.1	9	0.016
LF-ASR-1	05/03/2011	Recovery	45.9	0.6	88	2.22	620	<0.003	<0.01	<0.005	431	<0.01	<0.01	<0.2	0.54	<0.001	<0.1	0.76	<0.1	8	0.011
LF-ASR-1	05/17/2011	Recovery	44.4	<0.2	110	2.22	630	<0.003	0.01	0.005	373	<0.01	<0.01	<0.2	0.53	<0.001	<0.1	0.31	<0.1	9	0.015
LF-ASR-1	05/31/2011	Recovery	43.8	<0.2	136	2.32	650	0.003	0.09	<0.005	343	0.01	<0.01	<0.2	0.4	<0.001	0.3	0.25	<0.1	9	0.02
LFMW-1	06/24/2010	Storage	85.4	<0.2	125	2.13	670	0.005	0.02	<0.005	686	0.01	<0.01	<0.2	2.67	<0.001	<0.1	0.5	<0.1	7	0.014
LFMW-1	06/29/2010	Injection	22.3	2.4	89	1.65	550	0.005	0.02	<0.005	200	<0.01	<0.01	<0.2	1	<0.001	<0.1	2.72	<0.1	3	0.01
LFMW-1	07/13/2010	Injection	6.37	1.1	52	1.56	520	0.004	0.03	<0.005	101	<0.01	<0.01	<0.2	0.61	<0.001	<0.1	0.86	<0.1	4	0.009
LFMW-1	07/27/2010	Injection	5.61	0.9	43	1.48	540	<0.003	<0.01	<0.005	107	<0.01	<0.01	<0.2	0.37	<0.001	<0.1	0.81	0.1	2	0.008

REPORT OF INVESTIGATION NO. 112

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
CZMW-1	03/02/2010	Injection	18.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
CZMW-1	03/16/2010	Injection	17.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
CZMW-1	03/30/2010	Injection	18.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
CZMW-1	04/06/2010	Injection	17.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
CZMW-1	04/13/2010	Storage	18.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
CZMW-1	04/20/2010	Storage	18.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	04/08/2010	Storage	18.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	04/15/2010	Storage	22.4	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
LF-ASR-1	04/20/2010	Storage	23.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	06/24/2010	Storage	22.1	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
LF-ASR-1	08/17/2010	Storage	24.8	0.006	0.003	<0.001	0.003	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	08/24/2010	Storage	27.3	0.009	0.008	<0.001	<0.001	<0.001	0.003	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
LF-ASR-1	08/31/2010	Storage	26.5	0.001	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	09/07/2010	Storage	23.4	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	09/09/2010	Storage	24	<0.001	<0.001	<0.001	0.004	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001
LF-ASR-1	09/21/2010	Recovery	23.5	0.001	0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
LF-ASR-1	09/28/2010	Recovery	24.3	0.003	0.003	<0.001	0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	10/05/2010	Recovery	24.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	10/19/2010	Storage	25.5	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
LF-ASR-1	10/26/2010	Storage	22.9	0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
LF-ASR-1	02/22/2011	Storage	13.9	0.002	0.002	<0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	03/08/2011	Storage	32.1	0.001	0.002	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
LF-ASR-1	03/22/2011	Storage	31.1	0.006	0.005	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	04/05/2011	Storage	26.6	<0.001	0.002	<0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003
LF-ASR-1	04/12/2011	Recovery	17.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	04/19/2011	Recovery	24.5	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	05/03/2011	Recovery	25.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LF-ASR-1	05/17/2011	Recovery	27.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LF-ASR-1	05/31/2011	Recovery	29.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
LFMW-1	06/24/2010	Storage	31.9	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	06/29/2010	Injection	25.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	07/13/2010	Injection	19.1	0.037	0.072	0.006	0.015	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	07/27/2010	Injection	20	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

FLORIDA GEOLOGICAL SURVEY

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Sulfide	Chloride	Temp
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	°C
CZMW-1	03/02/2010	Injection	<0.001	0.06	0.004	<0.002	<0.3	<0.002	<0.2	0.006	<0.01	<0.3	<0.001	0.141	8.55		13.3	23.8
CZMW-1	03/16/2010	Injection	<0.001	0.04	0.004	<0.002	<0.3	<0.002	<0.2	0.004	<0.01	<0.3	<0.001	0.123	7.90		13	24.3
CZMW-1	03/30/2010	Injection	<0.001	0.03	0.004	<0.002	<0.3	<0.002	<0.2	0.004	<0.01	<0.3	<0.001	0.099	8.65		12.9	24.2
CZMW-1	04/06/2010	Injection	<0.001	0.02	0.003	<0.002	<0.3	<0.002	<0.2	0.004	<0.01	<0.3	<0.001	0.093	8.29		13.3	24.8
CZMW-1	04/13/2010	Storage	<0.001	0.02	0.006	<0.002	<0.3	<0.002	<0.2	0.004	<0.01	<0.3	<0.001	0.112	9.23	2.00	18.00	25.3
CZMW-1	04/20/2010	Storage	<0.001	0.04	0.006	<0.002	<0.3	<0.002	<0.2	0.003	<0.01	<0.3	<0.001	0.113	7.43	1.40	13.1	24.8
LF-ASR-1	04/08/2010	Storage	<0.001	<0.02	0.037	<0.002	<0.3	<0.002	<0.2	0.043	0.24	<0.3	<0.001	0.303				24.7
LF-ASR-1	04/15/2010	Storage	<0.001	<0.02	0.055	<0.002	<0.3	<0.002	<0.2	0.123	0.82	<0.3	<0.001	0.532				24.3
LF-ASR-1	04/20/2010	Storage	<0.001	<0.02	0.047	<0.002	<0.3	<0.002	<0.2	0.084	0.26	<0.3	<0.001	0.487	23.30	<0.10	18.00	24.4
LF-ASR-1	06/24/2010	Storage	<0.001	<0.02	0.14	<0.002	<0.3	<0.002	<0.2	0.022	0.05	<0.3	<0.001	1.34	15.10		33.2	24.8
LF-ASR-1	08/17/2010	Storage	<0.001	<0.02	0.057	<0.002	<0.3	0.002	<0.2	0.04	0.09	<0.3	<0.001	0.425	22.20	<0.10	15.00	24.9
LF-ASR-1	08/24/2010	Storage	<0.001	<0.02	0.085	<0.002	<0.3	<0.002	<0.2	0.009	0.22	<0.3	<0.001	0.628	29.30	0.10	35.00	23.9
LF-ASR-1	08/31/2010	Storage	<0.001	<0.02	0.107	<0.002	<0.3	0.006	<0.2	0.003	0.07	<0.3	<0.001	0.707	33.10	0.30	30.00	25.7
LF-ASR-1	09/07/2010	Storage	<0.001	<0.02	0.093	<0.002	<0.3	0.004	<0.2	0.005	0.07	<0.3	<0.001	0.609	26.80	0.70	30.00	25.3
LF-ASR-1	09/09/2010	Storage	<0.001	<0.02	0.131	<0.002	<0.3	<0.002	<0.2	0.006	0.15	<0.3	0.002	0.913	24.90		29.3	25.5
LF-ASR-1	09/21/2010	Recovery	<0.001	<0.02	0.193	<0.002	<0.3	<0.002	<0.2	0.002	0.01	<0.3	<0.001	1.67	19.00	<0.10	10.00	25.2
LF-ASR-1	09/28/2010	Recovery	<0.001	<0.02	0.186	<0.002	<0.3	<0.002	<0.2	0.003	0.07	<0.3	<0.001	1.93	16.90	<0.10	10.00	25.7
LF-ASR-1	10/05/2010	Recovery	<0.001	<0.02	0.168	<0.002	<0.3	<0.002	<0.2	0.003	0.09	<0.3	<0.001	1.98	17.00	<0.10	8.00	25.4
LF-ASR-1	10/19/2010	Storage	<0.001	<0.02	0.157	<0.002	<0.3	<0.002	<0.2	0.003	0.02	<0.3	<0.001	1.9	16.10	<0.10	8.00	25.4
LF-ASR-1	10/26/2010	Storage	<0.001	<0.02	0.122	<0.002	<0.3	<0.002	<0.2	0.036	0.05	<0.3	<0.001	1.62	16.20	<0.10	12.00	25.4
LF-ASR-1	02/22/2011	Storage	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	0.024	0.12	<0.3	0.003	0.113	7.37	<0.1	25.8	25.3
LF-ASR-1	03/08/2011	Storage	<0.001	<0.02	0.077	<0.002	<0.3	<0.002	<0.2	0.013	0.23	<0.3	0.004	0.525	28	0.2	28.9	25.1
LF-ASR-1	03/22/2011	Storage	<0.001	<0.02	0.118	<0.002	<0.3	<0.002	<0.2	0.002	0.03	<0.3	0.002	0.574	37.7	2.7	28.6	24.8
LF-ASR-1	04/05/2011	Storage	<0.001	<0.02	0.122	<0.002	<0.3	<0.002	<0.2	0.001	0.55	<0.3	0.001	0.632	31.7	0.1	27.6	24.1
LF-ASR-1	04/12/2011	Recovery	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.082	17.8	0.1	27.4	24.7
LF-ASR-1	04/19/2011	Recovery	<0.001	<0.02	0.196	<0.002	<0.3	<0.002	<0.2	0.002	0.07	<0.3	0.002	1.78	16.40	<0.10	10.00	25.1
LF-ASR-1	05/03/2011	Recovery	<0.001	<0.02	0.153	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	1.74	16.10	<0.10	5.00	24.8
LF-ASR-1	05/17/2011	Recovery	<0.001	<0.02	0.132	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	1.62	16.40	<0.10	8.00	25.4
LF-ASR-1	05/31/2011	Recovery	<0.001	<0.02	0.127	<0.002	<0.3	<0.002	<0.2	<0.001	0.36	<0.3	0.001	1.55	16.90	<0.10	2.00	25.1
LFMW-1	06/24/2010	Storage	<0.001	<0.02	0.169	<0.002	<0.3	<0.002	<0.2	0.006	0.02	<0.3	<0.001	1.57	16.90		40	25.7
LFMW-1	06/29/2010	Injection	<0.001	<0.02	0.068	<0.002	<0.3	<0.002	<0.2	0.223	0.02	<0.3	<0.001	1.12	13.70	<0.10	8.00	25.7
LFMW-1	07/13/2010	Injection	<0.001	<0.02	0.043	<0.002	<0.3	<0.002	<0.2	0.118	<0.01	<0.3	<0.001	0.507	8.27	<0.10	2.00	26.4
LFMW-1	07/27/2010	Injection	<0.001	<0.02	0.037	<0.002	<0.3	<0.002	<0.2	0.085	0.02	<0.3	<0.001	0.426	9.25	<0.10	2.00	25.4

REPORT OF INVESTIGATION NO. 112

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	pH	ORP	Conductivity	DO	Turbidity
			std. units	mV	µS/cm	mg/L	NTU
CZMW-1	03/02/2010	Injection	8.08	-112.8	349.00	0.9	1.02
CZMW-1	03/16/2010	Injection	8.01	-57.1	337.00	1.63	1.41
CZMW-1	03/30/2010	Injection	8.04	-73	350.00	1.36	0.73
CZMW-1	04/06/2010	Injection	8	-49.8	346.00	1.22	0.71
CZMW-1	04/13/2010	Storage	7.93	-172.5	347.00	0.62	0.69
CZMW-1	04/20/2010	Storage	7.85	-99.8	341.00	1.08	0.37
LF-ASR-1	04/08/2010	Storage	7.56	301.6	356.00	4.5	1.38
LF-ASR-1	04/15/2010	Storage	7.42	28.1	380.00	2.67	4.11
LF-ASR-1	04/20/2010	Storage	7.34	17.9	378.00	2.97	2.08
LF-ASR-1	06/24/2010	Storage	7.6	23	410.00	1.88	0.57
LF-ASR-1	08/17/2010	Storage	7.41	10.4	397.00	2.57	0.85
LF-ASR-1	08/24/2010	Storage	7.26	30.9	419.00	1.56	0.91
LF-ASR-1	08/31/2010	Storage	7.3	4.9	416.00	2.08	1.13
LF-ASR-1	09/07/2010	Storage	7.47	-18.8	415.00	1.33	1.98
LF-ASR-1	09/09/2010	Storage	7.46	-2.2	389.00	1.57	0.92
LF-ASR-1	09/21/2010	Recovery	7.47	-14.9	403.00	1.71	0.2
LF-ASR-1	09/28/2010	Recovery	7.62	-69.2	398.00	1.81	0.16
LF-ASR-1	10/05/2010	Recovery	7.7		407.00	1.48	0.23
LF-ASR-1	10/19/2010	Storage	7.72	57.9	402.00	1.52	0.47
LF-ASR-1	10/26/2010	Storage	7.77	-98.9	401.00	2.32	0.69
LF-ASR-1	02/22/2011	Storage	7.68	-10.2	344	4.75	1.86
LF-ASR-1	03/08/2011	Storage	7.45	-137.5	422	2.03	1.12
LF-ASR-1	03/22/2011	Storage	7.38	-228.5	460	1.2	0.94
LF-ASR-1	04/05/2011	Storage	7.44	-205.5	428	0.6	2.69
LF-ASR-1	04/12/2011	Recovery	7.61	-164.3	400	1.48	0.22
LF-ASR-1	04/19/2011	Recovery	7.69	-108.8	401.00	1.66	0.4
LF-ASR-1	05/03/2011	Recovery	7.72	-33	419.00	1.57	0.14
LF-ASR-1	05/17/2011	Recovery	7.74	-48.2	434.00	2.1	0.12
LF-ASR-1	05/31/2011	Recovery	7.68	-112.2	456.00	1.19	0.24
LFMW-1	06/24/2010	Storage	7.33	-27.3	436.00	1.61	0.06
LFMW-1	06/29/2010	Injection	7.55	41	371.00	2.67	0.31
LFMW-1	07/13/2010	Injection	7.59	9.5	345.00	4.13	0.12
LFMW-1	07/27/2010	Injection	7.57	32.9	348.00	5.85	0.19

FLORIDA GEOLOGICAL SURVEY

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LFMW-1	08/10/2010	Injection	1	<0.1	20400	8840	<2	5500	940	37900	1	1	6.9	<0.5	0.4	<10	<0.005	6.9	0.5	48.5	0.06	0.01
LFMW-1	08/24/2010	Storage	2	<0.1	20500	10500	<2	5200	1060	43300	1	0.7	10.8	<0.5	4.2	<10	0.287	9.5	0.3	34.3	0.08	0.01
LFMW-1	09/07/2010	Storage	2	<0.1	21800	11400	<2	5000	1020	42800	1	0.8	9.4	<0.5	5	<10	0.282	9	<0.2	32.9	0.1	0.01
LFMW-1	09/14/2010	Storage	2	<0.1	21200	11700	<2	5500	1050	43900	1	0.8	7.9	<0.5	4.5	<10	0.222	9.3	<0.2	40.2	0.09	<0.01
LFMW-1	09/21/2010	Recovery	2	<0.1	28700	12800	2	7600	1380	41900	2	1.1	9.5	<0.5	5.5	80	0.067	12.1	3.4	19.1	0.08	0.02
LFMW-1	09/28/2010	Recovery	2	<0.1	25100	13400	4	7600	1200	42000	2	1	6.2	<0.5	3.1	<10	0.146	8.5	6.9	20.6	0.09	0.02
LFMW-1	10/05/2010	Recovery	2	<0.1	27700	13600	3	7900	1330	41000	2	1.1	5.1	<0.5	2.3	<10	0.07	7.9	22.2	13.4	0.09	0.02
LFMW-1	10/19/2010	Storage	2	<0.1	30900	13900	5	8100	1470	41500	2	1.1	3.6	<0.5	2.2	10	0.043	7	0.2	8.5	0.08	0.02
LFMW-1	10/26/2010	Storage	2	<0.1	34000	14500	4	8600	1580	41000	2	1.1	2.8	<0.5	1.8	10	0.032	7.3	<0.2	7	0.08	0.02
LFMW-1	11/02/2010	Injection	2	<0.1	29700	14700	4	8600	1640	41700	2	1.1	2.3	<0.5	2	20	0.026	7.4	<0.2	10.7	0.08	0.02
LFMW-1	11/16/2010	Injection	2	<0.1	27800	14700	4	8600	1620	40000	2	1.1	1.8	<0.5	2	30	0.012	7.4	0.3	12.5	0.07	0.02
LFMW-1	11/30/2010	Injection	<5	<0.5	15500	7690	<10	5400	850	34500	<5	1	4.3	<3	<0.5	<50	0.073	<2	<1	39.3	0.05	<0.05
LFMW-1	12/28/2010	Injection	1	<0.1	20300	10100	4	6000	970	38800	1	0.9	5.7	<0.5	0.2	20	0.074	6	0.4	178	0.05	0.02
LFMW-1	01/11/2011	Injection	1	<0.1	21100	10300	3	6000	960	38400	1	0.8	5.3	<0.5	0.2	20	0.063	5.6	0.6	53.3	0.03	0.02
LFMW-1	02/01/2011	Injection	1	<0.1	20600	10000	2	6000	960	38100	1	1.1	5.5	<0.5	0.2	20	0.071	5	0.3	49.7	0.05	0.02
LFMW-1	02/15/2011	Injection	<1	<0.1	22400	10400	3	6100	1010	38800	1	1.1	5.3	<0.5	0.2	20	0.053	5.6	0.4	50.5	0.03	0.02
LFMW-1	02/22/2011	Storage	1	<0.1	22300	10600	3	5900	980	39400	1	1.1	6.3	<0.5	0.8	20	0.093	5.5	0.3	41.6	0.05	0.02
LFMW-1	03/08/2011	Storage	1	<0.1	22800	12600	4	6000	1050	43300	1	1.1	8.9	<0.5	4.5	30	0.338	6.2	0.4	35.3	0.06	0.04
LFMW-1	03/22/2011	Storage	2	<0.1	23200	13300	3	5900	1090	43600	1	0.8	8.8	<0.5	7.5	30	0.555	7.6	4	33.6	0.07	0.03
LFMW-1	04/05/2011	Storage	2	<0.1	23600	13900	3	5900	1110	45000	1	1	8.2	<0.5	7.8	40	0.56	7.4	0.6	27.5	0.07	0.02
LFMW-1	04/12/2011	Recovery	2	<0.1	23600	13900	2	5800	1120	43000	1	0.6	7.4	<0.5	5.5	40	0.377	7.1	<0.2	23.3	0.11	0.02
LFMW-1	04/19/2011	Recovery	2	<0.1	24800	13800	3	6000	1200	42900	1	0.9	5.4	<0.5	4.2	50	0.286	7.3	<0.2	20.8	0.08	0.02
LFMW-1	05/03/2011	Recovery	2	<0.1	13700	12100	3	7200	1300	39100	1	0.9	<0.1	<0.5	16	270	0.028	<0.3	0.5	8.6	<0.01	0.04
LFMW-1	05/17/2011	Recovery	2	<0.1	34700	14500	2	6400	1600	41700	1	1.2	1.4	<0.5	2.2	130	0.091	7	<0.2	7.6	0.08	0.03
LFMW-1	06/03/2011	Recovery	2	<0.1	38500	15000	3	6700	1780	42400	1	1.3	1	<0.5	1.7	210	0.077	6	0.2	1.9	0.07	0.04
LFMW-2	03/02/2010	Injection	2	<0.1	22900	10200	3	6300	1490	38000	2	1.6	0.5	<0.5	0.9	<10	0.006	<0.3	<0.2	<0.5	0.04	<0.01
LFMW-2	03/16/2010	Injection	2	<0.1	22200	10200	3	6100	1450	40700	2	1.6	0.9	<0.5	0.9	<10	0.007	<0.3	<0.2	<0.5	0.04	<0.01
LFMW-2	03/30/2010	Injection	2	<0.1	22900	10400	3	6300	1430	41200	2	1.7	1.2	<0.5	1	<10	0.005	<0.3	0.2	<0.5	0.04	<0.01
LFMW-2	04/06/2010	Injection	2	<0.1	22900	10500	3	6200	1410	40900	2	1.7	1.5	<0.5	1	<10	0.018	0.5	0.2	<0.5	0.05	<0.01
LFMW-2	04/13/2010	Storage	2	<0.1	23300	10400	5	6300	1470	40000	2	1.8	0.7	<0.5	1	10	<0.005	<0.3	0.7	0.6	0.04	<0.01
LFMW-2	04/20/2010	Storage	2	<0.1	23300	10400	4	6200	1470	40600	2	1.5	0.5	<0.5	0.9	10	<0.005	<0.3	<0.2	<0.5	0.04	<0.01
LFMW-2	06/24/2010	Storage	2	<0.1	26500	11500	5	6700	1570	42700	2	1.2	0.2	<0.5	0.7	<10	<0.005	<0.3	<0.2	2.9	0.03	0.03
LFMW-2	06/29/2010	Injection	2	<0.1	26500	11500	5	6400	1550	41700	2	1.1	0.2	<0.5	0.7	<10	<0.005	<0.3	0.3	2.9	0.03	0.03

REPORT OF INVESTIGATION NO. 112

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I	Cs
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LFMW-1	08/10/2010	Injection	11	0.9	47	1.58	550	<0.003	<0.01	<0.005	194	<0.01	<0.01	<0.2	0.56	<0.001	<0.1	1.93	<0.1	2	0.012
LFMW-1	08/24/2010	Storage	32.8	0.5	49	1.66	620	<0.003	<0.01	<0.005	627	0.01	<0.01	<0.2	1.39	<0.001	<0.1	7.77	<0.1	2	0.011
LFMW-1	09/07/2010	Storage	47.4	<0.2	50	1.72	620	<0.003	<0.01	<0.005	736	0.01	<0.01	<0.2	1.82	<0.001	<0.1	9.04	0.1	4	0.009
LFMW-1	09/14/2010	Storage	62.2	0.4	54	1.7	630	<0.003	<0.01	<0.005	853	<0.01	<0.01	<0.2	1.82	<0.001	<0.1	8.93	<0.1	4	0.009
LFMW-1	09/21/2010	Recovery	31.5	0.8	78	2.03	560	0.005	0.03	<0.005	325	0.01	<0.01	<0.2	1.3	<0.001	<0.1	1.15	<0.1	12	0.018
LFMW-1	09/28/2010	Recovery	65.8	0.6	57	1.78	590	0.005	0.02	<0.005	684	0.01	<0.01	<0.2	2.87	0.001	0.3	5.15	<0.1	12	0.009
LFMW-1	10/05/2010	Recovery	64.7	0.6	63	1.83	570	0.005	0.01	<0.005	529	0.01	<0.01	<0.2	2.19	<0.001	0.8	1.63	<0.1	10	0.01
LFMW-1	10/19/2010	Storage	57.6	0.8	74	1.91	580	0.005	0.02	<0.005	476	0.01	<0.01	<0.2	2.01	<0.001	<0.1	0.66	<0.1	10	0.012
LFMW-1	10/26/2010	Storage	53.2	0.3	91	2.01	580	0.004	0.01	<0.005	438	0.01	<0.01	<0.2	1.86	<0.001	<0.1	0.4	<0.1	10	0.012
LFMW-1	11/02/2010	Injection	60.9	1	101	2.03	610	0.004	0.01	<0.005	437	0.01	<0.01	<0.2	1.87	<0.001	<0.1	0.39	<0.1	9	0.013
LFMW-1	11/16/2010	Injection	62.7	0.7	101	2.01	580	0.004	5.66	<0.005	421	0.01	<0.01	<0.2	1.81	<0.001	<0.1	0.35	<0.1	13	0.013
LFMW-1	11/30/2010	Injection	4.38	<1	38	1.49	530	<0.01	<0.05	<0.03	89.5	<0.05	<0.05	<1	0.39	<0.005	<0.5	0.6	<0.5	10	0.008
LFMW-1	12/28/2010	Injection	5.66	0.6	36	1.65	570	0.003	0.01	<0.005	98	0.01	<0.01	<0.2	0.28	<0.001	<0.1	0.68	<0.1	6	0.007
LFMW-1	01/11/2011	Injection	5.14	1.4	38	1.71	540	<0.003	0.01	<0.005	95.5	0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.69	<0.1	6	0.013
LFMW-1	02/01/2011	Injection	5.58	0.7	37	1.7	520	<0.003	0.03	<0.005	95.5	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.65	<0.1	6	0.015
LFMW-1	02/15/2011	Injection	5.63	0.9	40	1.74	580	<0.003	0.01	<0.005	94.1	<0.01	<0.01	<0.2	0.29	<0.001	<0.1	0.61	<0.1	7	0.012
LFMW-1	02/22/2011	Storage	10.8	1	44	1.72	590	0.003	0.03	<0.005	199	0.02	<0.01	<0.2	0.33	<0.001	<0.1	1.79	<0.1	7	0.01
LFMW-1	03/08/2011	Storage	25.6	1.4	54	1.77	630	<0.003	0.25	<0.005	523	0.01	<0.01	<0.2	0.68	<0.001	<0.1	5.82	<0.1	9	0.007
LFMW-1	03/22/2011	Storage	35.5	0.7	56	1.91	640	0.004	0.03	0.005	612	0.01	<0.01	<0.2	0.8	0.001	<0.1	7.78	<0.1	10	0.009
LFMW-1	04/05/2011	Storage	49.8	0.4	61	1.95	650	0.003	0.04	<0.005	740	0.01	<0.01	<0.2	0.86	<0.001	<0.1	9.84	<0.1	12	0.009
LFMW-1	04/12/2011	Recovery	78	0.7	59	1.93	620	0.003	0.03	<0.005	698	0.02	<0.01	<0.2	0.91	<0.001	<0.1	4.6	<0.1	10	0.011
LFMW-1	04/19/2011	Recovery	82.6	<0.2	66	1.98	610	<0.003	0.02	<0.005	618	<0.01	<0.01	<0.2	0.75	<0.001	<0.1	1.06	<0.1	8	0.012
LFMW-1	05/03/2011	Recovery	2.84	<0.2	58	2.26	200	<0.003	0.02	<0.005	19.7	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	9	0.005
LFMW-1	05/17/2011	Recovery	64.3	0.3	142	2.14	660	0.009	0.02	<0.005	380	0.02	<0.01	<0.2	0.35	<0.001	<0.1	0.25	<0.1	8	0.012
LFMW-1	06/03/2011	Recovery	47.3	<0.2	169	2.28	690	<0.003	0.02	<0.005	310	0.01	<0.01	<0.2	0.33	<0.001	<0.1	0.26	<0.1	8	0.011
LFMW-2	03/02/2010	Injection	9.12	0.2	71	1.56	740	<0.003	<0.01	<0.005	216	<0.01	<0.01	<0.2	0.69	<0.001	<0.1	1.38	<0.1	3	0.012
LFMW-2	03/16/2010	Injection	7.04	<0.2	64	1.47	740	<0.003	0.01	<0.005	210	<0.01	<0.01	<0.2	0.69	<0.001	<0.1	1.17	<0.1	3	0.01
LFMW-2	03/30/2010	Injection	5.86	<0.2	62	1.51	730	0.003	0.01	<0.005	197	<0.01	<0.01	<0.2	0.65	<0.001	<0.1	0.88	<0.1	2	0.01
LFMW-2	04/06/2010	Injection	6.02	<0.2	60	1.44	730	<0.003	0.01	<0.005	204	<0.01	<0.01	<0.2	0.64	<0.001	<0.1	0.93	<0.1	2	0.009
LFMW-2	04/13/2010	Storage	6.08	<0.2	59	1.51	720	<0.003	0.01	<0.005	210	<0.01	<0.01	<0.2	0.68	<0.001	<0.1	0.67	<0.1	2	0.011
LFMW-2	04/20/2010	Storage	5.79	<0.2	59	1.46	720	<0.003	0.01	<0.005	191	<0.01	<0.01	<0.2	0.63	<0.001	<0.1	0.45	<0.1	2	0.011
LFMW-2	06/24/2010	Storage	1.03	<0.2	105	1.82	780	0.006	0.01	<0.005	168	<0.01	<0.01	<0.2	0.69	<0.001	<0.1	0.01	<0.1	2	0.016
LFMW-2	06/29/2010	Injection	1.15	<0.2	101	1.7	770	0.006	0.04	<0.005	177	<0.01	<0.01	<0.2	0.71	<0.001	<0.1	0.03	<0.1	2	0.016

FLORIDA GEOLOGICAL SURVEY

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LFMW-1	08/10/2010	Injection	18.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	08/24/2010	Storage	23.2	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	09/07/2010	Storage	25.3	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	09/14/2010	Storage	24.9	<0.001	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	09/21/2010	Recovery	21.8	0.001	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	09/28/2010	Recovery	26.6	0.001	0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	10/05/2010	Recovery	27.7	<0.001	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
LFMW-1	10/19/2010	Storage	28.6	0.003	0.005	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	10/26/2010	Storage	30.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	11/02/2010	Injection	29.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	11/16/2010	Injection	30.3	0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.157
LFMW-1	11/30/2010	Injection	19.1	<0.005	0.008	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
LFMW-1	12/28/2010	Injection	19.4	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	01/11/2011	Injection	18.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
LFMW-1	02/01/2011	Injection	18.4	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	02/15/2011	Injection	19.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LFMW-1	02/22/2011	Storage	19.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	03/08/2011	Storage	23.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.006
LFMW-1	03/22/2011	Storage	25.5	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LFMW-1	04/05/2011	Storage	26.4	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	04/12/2011	Recovery	25.8	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LFMW-1	04/19/2011	Recovery	26.2	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LFMW-1	05/03/2011	Recovery	17.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	05/17/2011	Recovery	32.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-1	06/03/2011	Recovery	37.2	0.001	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LFMW-2	03/02/2010	Injection	54.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	03/16/2010	Injection	53.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	03/30/2010	Injection	51.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	04/06/2010	Injection	51.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	04/13/2010	Storage	52.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	04/20/2010	Storage	52.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	06/24/2010	Storage	63.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	06/29/2010	Injection	61.9	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Sulfide	Chloride	Temp
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	°C
LFMW-1	08/10/2010	Injection	<0.001	<0.02	0.057	<0.002	<0.3	0.003	<0.2	0.126	<0.01	<0.3	<0.001	0.539	9.65	<0.10	2.00	25.7
LFMW-1	08/24/2010	Storage	<0.001	<0.02	0.145	<0.002	<0.3	0.006	<0.2	0.145	<0.01	<0.3	<0.001	1.18	17.50	<0.10	2.00	24.2
LFMW-1	09/07/2010	Storage	<0.001	<0.02	0.183	<0.002	<0.3	<0.002	<0.2	0.104	<0.01	<0.3	<0.001	1.56	18.50	<0.10	5.00	25.4
LFMW-1	09/14/2010	Storage	<0.001	<0.02	0.186	<0.002	<0.3	<0.002	<0.2	0.077	<0.01	<0.3	0.001	1.65	18.90	<0.10	5.00	26
LFMW-1	09/21/2010	Recovery	<0.001	<0.02	0.122	<0.002	<0.3	<0.002	<0.2	0.035	0.12	<0.3	<0.001	1.44	18.30	<0.10	5.00	25.5
LFMW-1	09/28/2010	Recovery	<0.001	<0.02	0.211	<0.002	<0.3	<0.002	<0.2	0.085	0.47	<0.3	<0.001	1.74	16.80	<0.10	5.00	26
LFMW-1	10/05/2010	Recovery	<0.001	<0.02	0.157	<0.002	<0.3	<0.002	<0.2	0.074	1.77	<0.3	<0.001	1.67	17.20	<0.10	5.00	25.9
LFMW-1	10/19/2010	Storage	<0.001	<0.02	0.139	<0.002	<0.3	<0.002	<0.2	0.058	0.01	<0.3	<0.001	1.47	17.20	<0.10	5.00	25.2
LFMW-1	10/26/2010	Storage	<0.001	<0.02	0.124	<0.002	<0.3	<0.002	<0.2	0.054	<0.01	<0.3	<0.001	1.32	17.00	<0.10	5.00	25.1
LFMW-1	11/02/2010	Injection	<0.001	<0.02	0.124	<0.002	<0.3	<0.002	<0.2	0.044	<0.01	<0.3	<0.001	1.4	13.10	1.30	5.00	25.2
LFMW-1	11/16/2010	Injection	<0.001	<0.02	0.115	<0.002	<0.3	<0.002	<0.2	0.034	0.03	<0.3	<0.001	1.42	8.92	<0.10	2.00	25.3
LFMW-1	11/30/2010	Injection	<0.005	<0.1	0.032	<0.01	<2	<0.01	<1	0.11	<0.05	<2	<0.005	0.425	8.85	<0.10	5.00	25.2
LFMW-1	12/28/2010	Injection	<0.001	<0.02	0.034	<0.002	<0.3	<0.002	<0.2	0.096	0.01	<0.3	<0.001	0.351	8.14	<0.10	2.00	20.7
LFMW-1	01/11/2011	Injection	<0.001	<0.02	0.037	<0.002	<0.3	<0.002	<0.2	0.102	<0.01	<0.3	<0.001	0.341	8.05	<0.10	2.00	22.9
LFMW-1	02/01/2011	Injection	<0.001	<0.02	0.029	<0.002	<0.3	<0.002	<0.2	0.094	<0.01	<0.3	<0.001	0.322	8.03	<0.10	10.00	24.7
LFMW-1	02/15/2011	Injection	<0.001	<0.02	0.034	<0.002	<0.3	0.002	<0.2	0.106	<0.01	<0.3	<0.001	0.358	8.31	<0.10	2.00	23.6
LFMW-1	02/22/2011	Storage	<0.001	<0.02	0.06	<0.002	<0.3	<0.002	<0.2	0.154	<0.01	<0.3	<0.001	0.523	9.56	<0.10	2.00	25.3
LFMW-1	03/08/2011	Storage	<0.001	<0.02	0.134	<0.002	<0.3	<0.002	<0.2	0.165	0.07	<0.3	0.007	0.959	16.00	<0.10	8.00	24.7
LFMW-1	03/22/2011	Storage	<0.001	0.02	0.167	<0.002	<0.3	<0.002	<0.2	0.159	0.21	<0.3	0.006	1.25	18.20	<0.10	5.00	25.2
LFMW-1	04/05/2011	Storage	<0.001	<0.02	0.197	<0.002	<0.3	<0.002	<0.2	0.15	0.18	<0.3	0.005	1.43	18.10	<0.10	5.00	23.9
LFMW-1	04/12/2011	Recovery	<0.001	0.02	0.211	<0.002	<0.3	<0.002	<0.2	0.165	0.04	<0.3	0.004	1.73	17.50	<0.10	5.00	24.9
LFMW-1	04/19/2011	Recovery	<0.001	<0.02	0.203	<0.002	<0.3	<0.002	<0.2	0.143	0.09	<0.3	0.004	1.78	16.90	<0.10	8.00	25.7
LFMW-1	05/03/2011	Recovery	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	0.001	0.05	<0.3	0.002	0.067	15.60	0.10	2.00	24.9
LFMW-1	05/17/2011	Recovery	<0.001	<0.02	0.117	<0.002	<0.3	<0.002	<0.2	0.034	0.04	<0.3	0.003	1.17	15.50	<0.10	5.00	25.3
LFMW-1	06/03/2011	Recovery	<0.001	<0.02	0.074	<0.002	<0.3	<0.002	<0.2	0.018	0.02	<0.3	0.006	0.964	16.40	0.10	2.00	25.7
LFMW-2	03/02/2010	Injection	<0.001	0.02	0.137	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.574	16.50		31	25.4
LFMW-2	03/16/2010	Injection	<0.001	0.02	0.136	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.714	16.40		29.1	25.9
LFMW-2	03/30/2010	Injection	<0.001	0.03	0.113	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.659	16.30		29.8	25.6
LFMW-2	04/06/2010	Injection	<0.001	0.04	0.115	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.664	16.50		30.7	25.6
LFMW-2	04/13/2010	Storage	<0.001	0.07	0.112	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.574	17.20	0.20	5.00	26
LFMW-2	04/20/2010	Storage	<0.001	0.05	0.105	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.509	16.70	0.20	30.4	21.2
LFMW-2	06/24/2010	Storage	<0.001	0.02	0.095	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.161	15.90		38.3	26.3
LFMW-2	06/29/2010	Injection	<0.001	0.02	0.092	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.183	16.80	0.90	8.00	25.3

FLORIDA GEOLOGICAL SURVEY

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	pH	ORP	Conductivity	DO	Turbidity
			std. units	mV	µS/cm	mg/L	NTU
LFMW-1	08/10/2010	Injection	7.89	28.3	354.00	5.36	0.27
LFMW-1	08/24/2010	Storage	7.44	29.8	397.00	1.85	0.13
LFMW-1	09/07/2010	Storage	7.72	24.6	401.00	1.07	0.18
LFMW-1	09/14/2010	Storage	7.72	-22.1	405.00	2.47	0.1
LFMW-1	09/21/2010	Recovery	7.2	1.5	404.00	1.87	0.16
LFMW-1	09/28/2010	Recovery	7.52	-79.2	399.00	1.38	0.07
LFMW-1	10/05/2010	Recovery	7.72	-90.3	409.00	1.21	0.1
LFMW-1	10/19/2010	Storage	7.77	-80.8	429.00	1.42	0.12
LFMW-1	10/26/2010	Storage	7.87	67.4	433.00	2.02	0.22
LFMW-1	11/02/2010	Injection	7.68	-32.5	366.00	2.7	0.19
LFMW-1	11/16/2010	Injection	7.75	15.9	347.00	4.21	0.23
LFMW-1	11/30/2010	Injection	7.64	0.7	346.00	4.16	0.16
LFMW-1	12/28/2010	Injection	7.73	-29.6	347.00	5.76	0.25
LFMW-1	01/11/2011	Injection	7.86	94	340.00	4.69	0.38
LFMW-1	02/01/2011	Injection	7.59	70.3	337.00	4.92	0.04
LFMW-1	02/15/2011	Injection	7.81	92.4	351.00	5.21	0.2
LFMW-1	02/22/2011	Storage	7.69	28.7	357.00	3.39	0.18
LFMW-1	03/08/2011	Storage	7.83	-77.7	396.00	4.52	0.32
LFMW-1	03/22/2011	Storage	7.78	124.1	399.00	1.43	0.2
LFMW-1	04/05/2011	Storage	7.65	187.7	404.00	2.63	0.29
LFMW-1	04/12/2011	Recovery	7.66	16.7	398.00	1.28	0.31
LFMW-1	04/19/2011	Recovery	7.65	-69.5	397.00	1.35	0.12
LFMW-1	05/03/2011	Recovery	8.04	-95.9	424.00	1.69	0.53
LFMW-1	05/17/2011	Recovery	7.64	25.7	449.00	2.3	0.12
LFMW-1	06/03/2011	Recovery	7.82	-171.4	468.00	2.21	0.06
LFMW-2	03/02/2010	Injection	7.86	-63.3	398.00	1	0.15
LFMW-2	03/16/2010	Injection	7.77	-27.7	392.00	1.31	0.12
LFMW-2	03/30/2010	Injection	7.86	-13.5	399.00	1.92	0.08
LFMW-2	04/06/2010	Injection	7.77	-30.8	400.00	0.7	0.07
LFMW-2	04/13/2010	Storage	7.79	-83.1	392.00	0.2	0.24
LFMW-2	04/20/2010	Storage	7.8	-13.6	393.00	1.54	0.09
LFMW-2	06/24/2010	Storage	7.76	-42.3	424.00	1.89	0.11
LFMW-2	06/29/2010	Injection	7.95	25.6	422.00	1.03	0.15

REPORT OF INVESTIGATION NO. 112

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga	Ge
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LFMW-2	07/13/2010	Injection	1	<0.1	22700	11000	4	6400	1350	40600	2	1.1	0.3	<0.5	0.9	20	<0.005	<0.3	1.2	2.7	0.03	0.02
LFMW-2	07/20/2010	Injection	2	<0.1	21200	10800	<2	6200	1300	41100	1	1	0.7	18.9	1.3	80	0.051	19.1	0.4	6.5	0.04	0.02
LFMW-2	08/03/2010	Injection	2	<0.1	21200	11200	3	5900	1260	41500	1	1.1	2	113	5.1	470	0.647	78.1	1.4	7.7	0.07	0.01
LFMW-2	08/17/2010	Storage	2	<0.1	22100	11200	2	5900	1270	40300	1	0.9	0.7	<0.5	1	<10	<0.005	0.5	<0.2	7	0.05	0.02
LFMW-2	08/31/2010	Storage	2	<0.1	21300	11200	<2	6100	1300	40600	1	0.9	0.1	<0.5	0.9	<10	<0.005	<0.3	<0.2	7	0.05	0.02
LFMW-2	09/07/2010	Storage	2	<0.1	21500	11000	4	5900	1320	40200	1	0.9	<0.1	<0.5	0.9	<10	<0.005	<0.3	<0.2	6.9	0.04	0.01
LFMW-2	09/14/2010	Storage	2	<0.1	21100	10700	6	5800	1360	39300	1	0.7	<0.1	<0.5	0.8	<10	<0.005	<0.3	0.3	6.3	0.04	0.01
LFMW-2	09/21/2010	Recovery	2	<0.1	26400	12500	4	8300	1220	38800	2	1.1	23.6	<0.5	1.5	<10	0.503	15.9	0.4	43.2	0.06	0.02
LFMW-2	09/28/2010	Recovery	2	<0.1	23300	11400	3	8500	1080	37700	2	1.2	7.4	<0.5	0.3	<10	0.065	7.4	0.4	41.3	0.05	0.02
LFMW-2	10/05/2010	Recovery	2	<0.1	23900	12000	4	9000	1110	38100	2	1.2	6.1	<0.5	0.2	<10	0.033	6.4	0.8	39.8	0.05	0.02
LFMW-2	11/02/2010	Injection	2	<0.1	30300	14800	6	9300	1580	42000	2	1.2	0.3	<0.5	0.8	<10	<0.005	<0.3	2.3	<0.5	0.03	0.02
LFMW-2	11/09/2010	Injection	2	<0.1	32300	14700	6	9500	1590	42000	2	1.1	0.2	<0.5	0.7	<10	<0.005	<0.3	18.6	1.7	0.02	0.02
LFMW-2	11/16/2010	Injection	2	<0.1	33400	15000	8	9700	1620	42400	2	1.2	0.2	<0.5	0.8	<10	<0.005	<0.3	0.2	<0.5	0.02	0.02
LFMW-2	11/30/2010	Injection	2	<0.1	23600	13400	4	6300	1310	41500	1	1.1	2.2	12.4	1.4	90	0.109	10.2	28.1	2.5	0.05	0.03
LFMW-2	12/28/2010	Injection	4	<0.1	23300	13100	3	6200	1240	41500	1	0.9	4.1	<0.5	1.6	30	0.054	1.9	0.3	<0.5	0.03	<0.01
LFMW-2	01/11/2011	Injection	2	<0.1	23100	13200	4	6400	1240	41100	1	0.9	4.1	<0.5	1.5	30	0.09	2.6	<0.2	<0.5	0.05	0.01
LFMW-2	02/01/2011	Injection	2	<0.1	23000	13400	4	6300	1240	41700	1	1	3.7	<0.5	1.6	30	0.135	5	<0.2	0.5	0.05	0.02
LFMW-2	02/15/2011	Injection	2	<0.1	23100	13500	4	6300	1230	41800	1	0.9	3.6	<0.5	1.5	20	0.177	6.6	34.4	3.1	0.05	0.02
LFMW-2	02/22/2011	Storage	2	<0.1	23300	13500	4	6200	1220	42000	1	0.8	3.2	<0.5	1.6	40	0.052	4.1	7.8	0.9	0.05	<0.01
LFMW-2	03/08/2011	Storage	2	<0.1	23400	13600	4	6300	1270	41700	1	0.8	1.9	<0.5	1.3	50	0.032	1.8	<0.2	<0.5	0.04	0.01
LFMW-2	03/22/2011	Storage	1	<0.1	21700	12500	4	5900	1240	41900	1	0.7	1.2	<0.5	1.1	50	0.019	1.3	1.5	<0.5	0.04	0.02
LFMW-2	03/29/2011	Storage	2	<0.1	22300	12600	5	5900	1260	42100	1	0.9	1	<0.5	1.1	40	<0.005	1.3	1.3	<0.5	0.04	0.01
LFMW-2	04/05/2011	Storage	2	<0.1	22300	12500	4	5900	1270	41600	1	0.7	0.7	<0.5	1.1	40	0.006	0.7	0.2	2.1	0.04	0.01
LFMW-2	04/12/2011	Recovery	2	<0.1	23200	13000	4	6000	1300	41500	1	0.9	0.4	<0.5	1	40	0.022	0.6	<0.2	<0.5	0.03	0.01
LFMW-2	04/19/2011	Recovery	2	<0.1	24700	13000	4	6200	1340	42200	1	0.9	0.3	<0.5	0.9	40	0.014	<0.3	<0.2	<0.5	0.05	0.01
LFMW-2	05/03/2011	Recovery	2	<0.1	30100	13500	3	6400	1530	42400	1	0.9	0.2	<0.5	0.9	30	0.009	<0.3	<0.2	<0.5	0.03	0.04
LFMW-2	05/17/2011	Recovery	2	<0.1	32100	13500	3	6600	1610	42600	1	1	0.4	114	5.7	520	1.12	75.8	0.4	<0.5	0.05	0.04
LFMW-2	05/31/2011	Recovery	2	<0.1	33200	13600	4	6700	1660	42200	1	0.9	0.2	<0.5	0.8	30	0.013	<0.3	<0.2	<0.5	0.01	0.02

FLORIDA GEOLOGICAL SURVEY

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I	Cs
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LFMW-2	07/13/2010	Injection	3.15	<0.2	66	1.47	730	0.005	0.01	<0.005	141	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	0.56	<0.1	2	0.013
LFMW-2	07/20/2010	Injection	2.86	<0.2	92	1.38	720	<0.003	<0.01	0.005	143	0.01	<0.01	<0.2	0.32	<0.001	<0.1	0.71	<0.1	2	0.007
LFMW-2	08/03/2010	Injection	3.96	0.8	77	1.33	700	0.003	<0.01	0.013	178	<0.01	<0.01	<0.2	0.37	<0.001	<0.1	0.93	<0.1	2	0.012
LFMW-2	08/17/2010	Storage	4.99	0.5	63	1.43	710	0.003	<0.01	<0.005	167	<0.01	<0.01	<0.2	0.38	<0.001	<0.1	0.49	<0.1	2	0.01
LFMW-2	08/31/2010	Storage	4.07	<0.2	61	1.48	720	<0.003	<0.01	<0.005	157	0.03	<0.01	<0.2	0.34	<0.001	<0.1	0.19	<0.1	2	0.011
LFMW-2	09/07/2010	Storage	3.57	0.4	61	1.46	720	0.004	<0.01	<0.005	159	0.02	<0.01	<0.2	0.37	<0.001	<0.1	0.1	0.1	2	0.01
LFMW-2	09/14/2010	Storage	2.88	<0.2	63	1.45	730	<0.003	<0.01	<0.005	153	<0.01	<0.01	<0.2	0.36	<0.001	<0.1	0.08	0.1	2	0.012
LFMW-2	09/21/2010	Recovery	14.9	2.7	63	1.6	550	0.004	0.16	<0.005	150	<0.01	<0.01	<0.2	0.8	<0.001	<0.1	2.14	<0.1	4	0.009
LFMW-2	09/28/2010	Recovery	6.39	1.6	51	1.5	540	0.004	0.07	<0.005	62.7	<0.01	<0.01	<0.2	0.41	<0.001	<0.1	0.65	<0.1	5	0.009
LFMW-2	10/05/2010	Recovery	5.57	1.4	52	1.52	520	0.004	0.05	<0.005	75.9	<0.01	<0.01	<0.2	0.45	<0.001	<0.1	0.63	<0.1	5	0.009
LFMW-2	11/02/2010	Injection	2.31	0.5	61	1.53	690	0.005	0.01	<0.005	141	<0.01	0.01	<0.2	0.6	<0.001	0.1	0.02	<0.1	8	0.011
LFMW-2	11/09/2010	Injection	1.55	0.5	68	1.61	680	0.005	0.01	<0.005	136	<0.01	<0.01	<0.2	0.58	<0.001	0.4	0.02	<0.1	2	0.012
LFMW-2	11/16/2010	Injection	1.13	0.6	80	1.61	730	0.006	0.01	<0.005	127	<0.01	<0.01	<0.2	0.54	<0.001	<0.1	0.02	<0.1	2	0.013
LFMW-2	11/30/2010	Injection	3.67	<0.2	64	1.44	700	0.004	0.2	<0.005	141	0.01	<0.01	<0.2	0.13	<0.001	0.6	0.8	<0.1	7	0.008
LFMW-2	12/28/2010	Injection	7.56	0.7	56	1.42	680	0.003	0.01	<0.005	184	0.01	<0.01	<0.2	0.25	<0.001	<0.1	1.28	<0.1	8	0.022
LFMW-2	01/11/2011	Injection	7.79	<0.2	61	1.34	680	0.004	0.01	<0.005	186	<0.01	<0.01	<0.2	0.25	<0.001	<0.1	1.31	<0.1	7	0.006
LFMW-2	02/01/2011	Injection	7.52	0.6	60	1.35	680	0.003	0.01	<0.005	195	0.01	<0.01	<0.2	0.25	<0.001	<0.1	1.17	<0.1	7	0.007
LFMW-2	02/15/2011	Injection	7.86	0.3	57	1.37	670	0.003	0.02	<0.005	196	0.01	<0.01	<0.2	0.25	<0.001	0.4	1.19	<0.1	7	0.006
LFMW-2	02/22/2011	Storage	8.43	<0.2	58	1.3	670	<0.003	0.01	<0.005	202	0.02	<0.01	<0.2	0.22	<0.001	0.2	1.09	<0.1	6	0.004
LFMW-2	03/08/2011	Storage	9.12	<0.2	60	1.43	690	<0.003	0.01	<0.005	191	<0.01	<0.01	<0.2	0.23	<0.001	<0.1	0.76	<0.1	6	0.012
LFMW-2	03/22/2011	Storage	8.64	<0.2	60	1.47	700	<0.003	<0.01	0.007	184	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.53	<0.1	7	0.011
LFMW-2	03/29/2011	Storage	7.65	0.5	63	1.46	700	<0.003	0.2	<0.005	186	<0.01	<0.01	<0.2	0.18	<0.001	0.1	0.33	<0.1	6	0.012
LFMW-2	04/05/2011	Storage	7.73	<0.2	61	1.44	700	0.003	0.01	<0.005	187	<0.01	<0.01	<0.2	0.29	<0.001	<0.1	0.21	<0.1	7	0.012
LFMW-2	04/12/2011	Recovery	6.09	<0.2	67	1.47	700	0.003	<0.01	<0.005	189	0.02	<0.01	<0.2	0.22	<0.001	<0.1	0.09	<0.1	7	0.015
LFMW-2	04/19/2011	Recovery	3.94	<0.2	76	1.62	730	<0.003	<0.01	<0.005	186	<0.01	<0.01	<0.2	0.25	<0.001	<0.1	0.04	<0.1	6	0.01
LFMW-2	05/03/2011	Recovery	2.28	<0.2	116	1.78	730	<0.003	<0.01	<0.005	166	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.12	<0.1	7	0.01
LFMW-2	05/17/2011	Recovery	2.31	0.4	132	1.84	760	<0.003	<0.01	0.02	204	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.08	<0.1	8	0.015
LFMW-2	05/31/2011	Recovery	2.3	<0.2	144	1.77	760	0.003	<0.01	<0.005	190	<0.01	<0.01	<0.2	0.26	<0.001	<0.1	0.07	<0.1	8	0.012

REPORT OF INVESTIGATION NO. 112

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu	Hf
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
LFMW-2	07/13/2010	Injection	55.8	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	07/20/2010	Injection	49.4	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	08/03/2010	Injection	48.5	0.009	0.004	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	08/17/2010	Storage	50.4	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	08/31/2010	Storage	50.9	<0.001	<0.001	<0.001	<0.001	0.002	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	09/07/2010	Storage	50.6	<0.001	<0.001	<0.001	0.01	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	09/14/2010	Storage	51.2	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
LFMW-2	09/21/2010	Recovery	24.1	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004
LFMW-2	09/28/2010	Recovery	20.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003
LFMW-2	10/05/2010	Recovery	19.6	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
LFMW-2	11/02/2010	Injection	52.7	<0.001	<0.001	<0.001	0.001	0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	11/09/2010	Injection	53.4	<0.001	<0.001	<0.001	<0.001	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	11/16/2010	Injection	54.8	0.002	0.003	<0.001	0.001	0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	11/30/2010	Injection	50.3	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.003
LFMW-2	12/28/2010	Injection	48.7	0.003	0.006	0.001	<0.001	<0.001	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	01/11/2011	Injection	45.8	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	02/01/2011	Injection	45.2	0.002	0.002	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LFMW-2	02/15/2011	Injection	43.6	0.004	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	02/22/2011	Storage	45.2	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	03/08/2011	Storage	48.5	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	03/22/2011	Storage	50.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	03/29/2011	Storage	49.3	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003
LFMW-2	04/05/2011	Storage	50	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LFMW-2	04/12/2011	Recovery	51.5	<0.001	<0.001	<0.001	0.004	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
LFMW-2	04/19/2011	Recovery	52.5	0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.002
LFMW-2	05/03/2011	Recovery	56.8	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002
LFMW-2	05/17/2011	Recovery	59.7	0.002	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
LFMW-2	05/31/2011	Recovery	60.8	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002

FLORIDA GEOLOGICAL SURVEY

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Sulfide	Chloride	Temp
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	mg/L	°C
LFMW-2	07/13/2010	Injection	<0.001	0.07	0.072	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.374	16.70	1.00	2.00	26.3
LFMW-2	07/20/2010	Injection	<0.001	0.05	0.064	<0.002	<0.3	<0.002	<0.2	0.008	0.02	<0.3	0.001	0.413	15.60	0.50	5.00	26.4
LFMW-2	08/03/2010	Injection	<0.001	0.17	0.077	<0.002	<0.3	0.002	<0.2	<0.001	0.02	<0.3	0.001	0.492	18.10	0.30	2.00	26.5
LFMW-2	08/17/2010	Storage	<0.001	0.02	0.087	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.46	16.80	0.20	2.00	26.4
LFMW-2	08/31/2010	Storage	<0.001	<0.02	0.071	<0.002	<0.3	<0.002	<0.2	0.002	<0.01	<0.3	0.002	0.384	17.00	0.30	<1.00	26.8
LFMW-2	09/07/2010	Storage	<0.001	0.03	0.079	<0.002	<0.3	0.002	<0.2	0.001	0.01	<0.3	<0.001	0.32	17.20	0.30	2.00	25.4
LFMW-2	09/14/2010	Storage	<0.001	<0.02	0.069	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	0.002	0.307	17.00	0.40	2.00	26.7
LFMW-2	09/21/2010	Recovery	<0.001	<0.02	0.051	<0.002	<0.3	<0.002	<0.2	0.339	0.01	<0.3	<0.001	0.94	17.10	0.50	2.00	26.7
LFMW-2	09/28/2010	Recovery	<0.001	<0.02	0.026	<0.002	<0.3	<0.002	<0.2	0.144	0.03	<0.3	<0.001	0.533	16.70	0.80	2.00	26.6
LFMW-2	10/05/2010	Recovery	<0.001	<0.02	0.029	<0.002	<0.3	<0.002	<0.2	0.118	0.01	<0.3	<0.001	0.445	16.90	1.00	2.00	26.5
LFMW-2	11/02/2010	Injection	<0.001	0.02	0.075	<0.002	<0.3	<0.002	<0.2	<0.001	0.18	<0.3	<0.001	0.254	18.50	<0.10	5.00	25.7
LFMW-2	11/09/2010	Injection	<0.001	0.02	0.071	<0.002	<0.3	<0.002	<0.2	<0.001	1.44	<0.3	<0.001	0.201	16.10	0.80	2.00	25.6
LFMW-2	11/16/2010	Injection	<0.001	0.02	0.065	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.173	16.10	0.60	2.00	26.3
LFMW-2	11/30/2010	Injection	<0.001	0.04	0.054	<0.002	<0.3	<0.002	<0.2	<0.001	2.3	<0.3	0.002	0.425	17.30	0.30	2.00	26.2
LFMW-2	12/28/2010	Injection	<0.001	0.02	0.081	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	0.002	0.583	17.00	0.60	2.00	23.3
LFMW-2	01/11/2011	Injection	<0.001	0.02	0.083	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.591	16.30	0.30	5.00	24.7
LFMW-2	02/01/2011	Injection	<0.001	0.02	0.086	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.607	18.30	0.10	12.00	25.6
LFMW-2	02/15/2011	Injection	<0.001	0.02	0.084	<0.002	<0.3	<0.002	<0.2	0.002	2.58	<0.3	0.001	0.631	17.50	0.20	2.00	24.4
LFMW-2	02/22/2011	Storage	<0.001	0.02	0.084	<0.002	<0.3	<0.002	<0.2	<0.001	0.62	<0.3	0.001	0.656	16.70	0.30	2.00	27.2
LFMW-2	03/08/2011	Storage	<0.001	0.04	0.088	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.588	16.90	0.30	5.00	26.2
LFMW-2	03/22/2011	Storage	<0.001	0.03	0.083	<0.002	<0.3	<0.002	<0.2	<0.001	0.14	<0.3	0.004	0.526	16.30	0.20	3.00	26.4
LFMW-2	03/29/2011	Storage	<0.001	0.02	0.077	<0.002	<0.3	<0.002	<0.2	<0.001	0.11	<0.3	<0.001	0.5	16.70	0.30	2.00	25.9
LFMW-2	04/05/2011	Storage	<0.001	0.04	0.085	<0.002	<0.3	<0.002	<0.2	<0.001	0.06	<0.3	<0.001	0.474	17.00	<0.10	2.00	24.6
LFMW-2	04/12/2011	Recovery	<0.001	0.02	0.09	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.43	16.60	<0.10	2.00	26.3
LFMW-2	04/19/2011	Recovery	<0.001	<0.02	0.086	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.361	3.86	0.20	2.00	26.4
LFMW-2	05/03/2011	Recovery	<0.001	<0.02	0.059	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.259	18.40	1.30	2.00	25
LFMW-2	05/17/2011	Recovery	<0.001	0.28	0.056	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.211	15.80	1.80	2.00	26.8
LFMW-2	05/31/2011	Recovery	<0.001	<0.02	0.052	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.157	17.80	2.20	2.00	25.1

REPORT OF INVESTIGATION NO. 112

Orange County ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	pH	ORP	Conductivity	DO	Turbidity
			std. units	mV	µS/cm	mg/L	NTU
LFMW-2	07/13/2010	Injection	7.75	-2.9	44.00	2.14	0.15
LFMW-2	07/20/2010	Injection	7.83	32	392.00	1.8	0.24
LFMW-2	08/03/2010	Injection	7.65	-18.8	390.00	1.7	0.17
LFMW-2	08/17/2010	Storage	7.77	20.3	387.00	2.2	0.12
LFMW-2	08/31/2010	Storage	7.76	-6.3	378.00	2.14	0.13
LFMW-2	09/07/2010	Storage	7.87	-6.8	390.00	0.39	0.13
LFMW-2	09/14/2010	Storage	7.78	-0.6	393.00	1.96	0.13
LFMW-2	09/21/2010	Recovery	7.56	-9.1	395.00	1.77	0.15
LFMW-2	09/28/2010	Recovery	7.38	-105.5	399.00	2.14	0.14
LFMW-2	10/05/2010	Recovery	7.8	-175.5	413.00	1.13	0.11
LFMW-2	11/02/2010	Injection	7.92	-173.7	418.00	1.78	0.1
LFMW-2	11/09/2010	Injection	7.69	-185.7	394.00	0.98	0.16
LFMW-2	11/16/2010	Injection	7.74	-188.4	388.00	1.58	0.17
LFMW-2	11/30/2010	Injection	7.75	-29.8	385.00	1.34	0.13
LFMW-2	12/28/2010	Injection	8.01	-100.7	389.00	1.18	0.17
LFMW-2	01/11/2011	Injection	7.8	-79.2	378.00	1.52	0.31
LFMW-2	02/01/2011	Injection	7.72	-155.3	378.00	2.4	0.27
LFMW-2	02/15/2011	Injection	7.8	-117.9	379.00	1.17	0.18
LFMW-2	02/22/2011	Storage	7.8	-116.1	383.00	2.18	0.18
LFMW-2	03/08/2011	Storage	7.83	-144.4	392.00	2.14	0.24
LFMW-2	03/22/2011	Storage	7.83	-166.2	388.00	1.58	0.14
LFMW-2	03/29/2011	Storage	7.9	-127.8	387.00	1.89	0.16
LFMW-2	04/05/2011	Storage	7.74	-144.6	395.00	0.79	0.19
LFMW-2	04/12/2011	Recovery	7.79	-175.4	390.00	2.21	0.15
LFMW-2	04/19/2011	Recovery	7.75	-219	400.00	1.52	0.12
LFMW-2	05/03/2011	Recovery	7.79	-209.5	431.00	0.68	0.13
LFMW-2	05/17/2011	Recovery	7.75	-240.7	436.00	1.68	0.4
LFMW-2	05/31/2011	Recovery	7.66	-260	444.00	0.29	0.26

FLORIDA GEOLOGICAL SURVEY

Palm Beach System #3 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	04/07/2008	Recovery	2	<0.1	23100	4220	5	6800	1470	103000	<1	1	1.1	1.5	4	<10	0.016	0.3	<0.2	<0.5	0.01
ASR-1	04/14/2008	Recovery	5	<0.1	47000	8700	2	7200	2020	101000	1	1.5	1.1	1.6	3.2	<10	<0.005	<0.3	<0.2	<0.5	<0.01
ASR-1	04/22/2008	Recovery	4	<0.1	30000	4250	4	6600	2120	107000	1	1.5	1.8	2.5	4.1	<10	<0.005	0.3	<0.2	<0.5	0.01
ASR-1	04/29/2008	Injection	4	<0.1	28800	4050	3	6400	1900	109000	1	1.5	1.8	2.4	4	<10	0.015	0.4	0.4	4.9	0.01
ASR-1	05/28/2008	Storage	4	<0.1	77700	4310	36	6900	19700	114000	1	4.5	21.5	1.6	3.7	<10	0.123	2.6	11.7	13.7	0.11
ASR-1	09/01/2010	Recovery	5	<0.1	98600	19600	<2	6500	3970	90700	1	0.9	<0.1	<0.5	1.5	<10	<0.005	<0.3	0.3	16.7	0.01
ASR-1	09/02/2010	Recovery	5	<0.1	99900	19900	<2	6800	4120	90500	1	1.1	<0.1	<0.5	1.6	<10	<0.005	0.4	0.4	9.8	<0.01
ASR-1	09/09/2010	Recovery	5	<0.1	120000	23100	<2	7000	4870	93100	1	1	<0.1	<0.5	1.4	<10	<0.005	<0.3	6.9	6	0.01
ASR-1	09/20/2010	Recovery	12	<0.1	330000	44000	<2	7800	12700	105000	2	1.4	<0.1	<0.5	1	<10	<0.005	0.8	6	0.6	0.01
ASR-1	09/29/2010	Recovery	10	<0.1	267000	38500	<2	8100	9840	97900	2	1.4	<0.1	<0.5	1	<10	<0.005	0.8	4.8	<0.5	0.01
ASR-1	10/13/2010	Recovery	16	<0.1	516000	67000	<2	8100	19200	109000	2	1.4	<0.1	<0.5	0.9	<10	<0.005	1.6	11.8	1.2	0.01
ASR-1	10/22/2010	Recovery	17	<0.1	502000	62200	<2	7400	19000	98000	2	1.4	<0.1	<0.5	1	<10	<0.005	2.4	10.8	1.7	0.01
ASR-1	10/30/2010	Recovery	21	<0.1	759000	96600	6	7200	33900	102000	2	1.6	<0.1	<0.5	2.7	40	<0.005	5.7	78.7	6.8	0.01
ASR-1	11/03/2010	Recovery	11	<0.1	525000	69100	<2	5800	20700	104000	1	0.8	<0.1	<0.5	0.4	30	<0.005	0.3	3.5	0.7	0.01
ASR-1	11/12/2010	Recovery	25	<0.1	572000	75000	<2	7800	22800	104000	2	1.3	<0.1	<0.5	0.8	<10	<0.005	0.8	4.7	2.3	0.01
ASR-1	11/24/2010	Recovery	27	<0.1	610000	78200	<2	7600	24500	104000	2	1.2	<0.1	<0.5	0.8	<10	<0.005	2.5	209	15.8	0.01
ASR-1	12/15/2010	Storage	<1	<0.1	89100	12900	41	10900	17000	139000	2	3.7	14.9	1	438	<10	<0.005	3.2	11.5	28	0.14
FAMW-1	04/09/2008	Recovery	26	<0.1	579000	86500	3	8000	25700	92800	1	1.9	<0.1	<0.5	2.4	<10	<0.005	0.5	3.7	1.5	0.01
FAMW-1	04/22/2008	Recovery	25	<0.1	568000	82800	2	7800	26100	92200	1	1.8	<0.1	<0.5	1.5	<10	0.015	0.8	4.2	4	0.01
FAMW-1	04/29/2008	Injection	28	<0.1	682000	94600	2	7500	29400	99100	1	1.9	<0.1	<0.5	0.7	<10	<0.005	0.9	6.2	2.5	0.01
FAMW-1	05/07/2008	Injection	27	<0.1	661000	88900	<2	7400	29100	98800	1	1.9	<0.1	<0.5	0.7	<10	0.006	1.1	4.6	1.5	0.01
FAMW-1	05/28/2008	Storage	21	<0.1	474000	73200	<2	7800	19200	92800	1	2	<0.1	<0.5	0.6	<10	<0.005	1.3	2.2	1.4	0.01
FAMW-1	06/11/2008	Storage	19	<0.1	490000	75500	<2	7100	27500	91800	<1	1.5	<0.1	<0.5	1.1	<10	<0.005	1	2.5	1.8	<0.01
FAMW-1	07/03/2008	Storage	24	<0.1	393000	68800	2	8100	19600	101000	1	1.9	<0.1	<0.5	2.8	<10	<0.005	0.4	1.2	1.2	<0.01
FAMW-1	08/06/2008	Storage	23	<1	490000	74900	<20	6600	19100	88900	<10	1.3	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW-1	09/10/2008	Storage	22	<1	536000	75000	<20	6200	19700	88200	<10	1.1	<1	<5	1.1	<100	<0.05	<3	<2	<5	<0.1
FAMW-1	10/15/2008	Storage	23	<1	550000	74800	<20	6000	20200	86500	<10	1.2	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW-1	11/19/2008	Storage	23	<1	564000	77500	<20	6300	20100	87100	<10	1.3	<1	<5	1	<100	<0.05	<3	<2	<5	<0.1
FAMW-1	01/07/2009	Storage	23	<1	585000	76300	<20	6100	21500	88300	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW-1	02/18/2009	Storage	22	<1	576000	73400	<20	6000	20000	84000	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW-1	03/18/2009	Storage	23	<1	599000	78800	<20	6200	22000	90000	<10	1.1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW-1	05/20/2009	Storage	23	<1	612000	76500	<20	5900	21200	84400	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
FAMW-1	07/01/2009	Storage	24	<1	621000	76300	<20	6000	22400	88500	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	6.3	<0.1

REPORT OF INVESTIGATION NO. 112

Palm Beach System #3 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	04/07/2008	Recovery	0.04	0.19	0.4	205	2.84	1130	0.032	0.06	<0.005	0.2	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	113
ASR-1	04/14/2008	Recovery	0.03	0.25	<0.2	355	3.03	1630	0.023	0.05	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	307
ASR-1	04/22/2008	Recovery	0.02	0.22	<0.2	504	3.2	1200	0.04	0.07	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	431
ASR-1	04/29/2008	Injection	0.02	0.2	<0.2	495	3.01	1200	0.084	0.07	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	424
ASR-1	05/28/2008	Storage	0.07	4.26	<0.2	183	67.1	1270	0.109	0.06	0.014	2.5	<0.01	<0.01	<0.2	0.41	0.002	<0.1	0.59	<0.1	351
ASR-1	09/01/2010	Recovery	0.02	<0.03	<0.2	733	3.81	1900	0.023	<0.01	<0.005	1.5	<0.01	0.01	<0.2	0.01	<0.001	<0.1	0.04	0.1	4
ASR-1	09/02/2010	Recovery	0.02	<0.03	<0.2	746	3.9	1930	0.021	<0.01	<0.005	0.6	<0.01	0.02	<0.2	<0.01	<0.001	<0.1	0.02	<0.1	4
ASR-1	09/09/2010	Recovery	0.03	<0.03	<0.2	951	4.38	2050	0.039	0.07	<0.005	<0.1	<0.01	0.01	<0.2	<0.01	<0.001	0.3	0.01	<0.1	13
ASR-1	09/20/2010	Recovery	0.04	<0.03	10.2	1960	6.97	4320	0.027	0.03	<0.005	0.3	<0.01	0.03	<0.2	<0.01	<0.001	<0.1	0.01	0.2	6
ASR-1	09/29/2010	Recovery	0.04	0.94	7.9	1880	6.32	3720	0.025	0.03	<0.005	0.3	<0.01	0.02	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	5
ASR-1	10/13/2010	Recovery	0.05	1.87	15.3	3380	9.15	5670	0.038	0.03	<0.005	0.2	<0.01	0.02	<0.2	<0.01	<0.001	0.1	0.01	0.2	6
ASR-1	10/22/2010	Recovery	0.05	1.96	17.5	3110	9.48	5460	0.038	0.03	<0.005	0.2	<0.01	0.02	<0.2	<0.01	<0.001	<0.1	0.01	0.2	6
ASR-1	10/30/2010	Recovery	0.06	2.55	22.7	4160	12	9320	0.056	0.04	<0.005	0.4	<0.01	0.02	<0.2	0.01	<0.001	2.8	0.03	0.6	6
ASR-1	11/03/2010	Recovery	0.03	<0.03	<0.2	3480	9.71	5920	0.02	0.03	<0.005	<0.1	<0.01	0.06	<0.2	<0.01	<0.001	<0.1	0.01	0.2	12
ASR-1	11/12/2010	Recovery	0.1	0.51	5.3	3690	10.6	6320	0.04	0.03	0.006	<0.1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.03	0.4	17
ASR-1	11/24/2010	Recovery	0.1	0.15	3.6	3980	10.9	6610	0.039	0.02	0.009	<0.1	<0.01	<0.01	<0.2	0.02	0.003	4.6	0.08	0.4	16
ASR-1	12/15/2010	Storage	0.07	3.8	1.9	343	21.7	1820	0.235	0.12	0.017	4.6	<0.01	<0.01	<0.2	0.89	0.007	<0.1	0.38	<0.1	9
FAMW-1	04/09/2008	Recovery	0.07	<0.03	<0.2	3630	10	9120	0.026	0.01	<0.005	<0.1	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.5	520
FAMW-1	04/22/2008	Recovery	0.06	<0.03	<0.2	3520	9.52	8970	0.024	0.01	<0.005	<0.1	<0.01	0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.3	507
FAMW-1	04/29/2008	Injection	0.06	<0.03	<0.2	4390	10.8	9690	0.029	0.01	<0.005	<0.1	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	0.6	556
FAMW-1	05/07/2008	Injection	0.05	<0.03	<0.2	4330	10.4	9340	0.027	0.01	<0.005	<0.1	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.6	552
FAMW-1	05/28/2008	Storage	0.05	<0.03	<0.2	2740	8.1	8540	0.024	0.01	<0.005	<0.1	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.3	488
FAMW-1	06/11/2008	Storage	0.05	<0.03	<0.2	2980	8.17	8620	0.027	0.01	<0.005	0.1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.3	180
FAMW-1	07/03/2008	Storage	0.04	<0.03	<0.2	2370	7.59	6960	0.019	0.01	<0.005	<0.1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.2	491
FAMW-1	08/06/2008	Storage	<0.1	<0.3	<2	3070	8.59	8890	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	20
FAMW-1	09/10/2008	Storage	<0.1	<0.3	<2	3300	8.71	9150	0.038	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	19
FAMW-1	10/15/2008	Storage	<0.1	<0.3	<2	3320	9.02	9320	<0.03	0.11	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	19
FAMW-1	11/19/2008	Storage	<0.1	<0.3	<2	3450	9.26	9430	<0.03	0.12	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	19
FAMW-1	01/07/2009	Storage	<0.1	<0.3	<2	3630	9.59	9390	<0.03	0.11	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	20
FAMW-1	02/18/2009	Storage	<0.1	<0.3	<2	3470	9.34	9330	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	20
FAMW-1	03/18/2009	Storage	<0.1	<0.3	<2	3680	10	9620	<0.03	0.11	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	21
FAMW-1	05/20/2009	Storage	<0.1	<0.3	<2	3810	9.86	9490	<0.03	0.12	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	21
FAMW-1	07/01/2009	Storage	<0.1	<0.3	<2	3830	10	9650	<0.03	0.12	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	21

FLORIDA GEOLOGICAL SURVEY

Palm Beach System #3 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	04/07/2008	Recovery	0.038	32.6	0.004	0.006	0.001	0.005	0.002	<0.001	0.004	<0.001	0.004	<0.001	0.004	<0.001	0.004	<0.001
ASR-1	04/14/2008	Recovery	0.036	30.7	0.001	0.003	<0.001	0.003	0.002	<0.001	0.001	<0.001	0.004	0.001	0.004	<0.001	0.003	<0.001
ASR-1	04/22/2008	Recovery	0.049	38	0.005	0.008	0.002	0.006	0.003	0.001	0.005	0.001	0.006	0.001	0.006	<0.001	0.006	0.001
ASR-1	04/29/2008	Injection	0.046	36.8	0.003	0.008	0.002	0.013	0.008	0.002	0.01	0.002	0.016	0.004	0.012	0.001	0.011	0.002
ASR-1	05/28/2008	Storage	0.875	13.9	0.046	0.098	0.019	0.1	0.032	0.007	0.185	0.005	0.027	0.005	0.012	0.002	0.013	0.002
ASR-1	09/01/2010	Recovery	0.039	29.5	0.001	<0.001	<0.001	<0.001	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.001	<0.001	<0.001
ASR-1	09/02/2010	Recovery	0.039	29.8	0.03	<0.001	<0.001	0.005	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001
ASR-1	09/09/2010	Recovery	0.043	30.6	0.006	0.009	<0.001	0.004	<0.001	0.003	0.002	<0.001	0.004	<0.001	0.003	<0.001	0.002	<0.001
ASR-1	09/20/2010	Recovery	0.045	27.3	0.001	0.002	<0.001	0.002	<0.001	0.003	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	09/29/2010	Recovery	0.041	28.6	0.002	0.002	<0.001	0.001	0.001	0.003	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	10/13/2010	Recovery	0.042	23.6	0.001	0.001	<0.001	0.002	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	10/22/2010	Recovery	0.042	23.4	0.001	0.002	<0.001	0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	10/30/2010	Recovery	0.035	12.9	0.006	0.009	0.001	0.004	0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	11/03/2010	Recovery	0.046	21.6	0.004	0.004	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	11/12/2010	Recovery	0.051	25.3	0.003	0.003	<0.001	0.002	<0.001	0.003	0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001
ASR-1	11/24/2010	Recovery	0.051	24.1	0.002	0.001	<0.001	0.002	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	12/15/2010	Storage	0.444	19.6	0.029	0.076	0.019	0.131	0.072	0.019	0.184	0.013	0.072	0.014	0.039	0.006	0.054	0.009
FAMW-1	04/09/2008	Recovery	0.038	12.3	0.003	0.003	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	04/22/2008	Recovery	0.034	12.5	0.003	0.003	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	04/29/2008	Injection	0.04	12.6	0.004	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
FAMW-1	05/07/2008	Injection	0.038	12.5	0.003	0.003	<0.001	0.002	0.002	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001	0.001	<0.001
FAMW-1	05/28/2008	Storage	0.028	11.3	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001
FAMW-1	06/11/2008	Storage	0.03	11.9	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	07/03/2008	Storage	0.03	40.3	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	08/06/2008	Storage	0.029	11	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW-1	09/10/2008	Storage	0.032	11.1	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW-1	10/15/2008	Storage	0.033	11.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW-1	11/19/2008	Storage	0.034	11.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW-1	01/07/2009	Storage	0.034	11.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW-1	02/18/2009	Storage	0.039	11.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW-1	03/18/2009	Storage	0.036	12.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW-1	05/20/2009	Storage	0.034	12.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
FAMW-1	07/01/2009	Storage	0.035	12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

REPORT OF INVESTIGATION NO. 112

Palm Beach System #3 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	04/07/2008	Recovery	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.004	0.044
ASR-1	04/14/2008	Recovery	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	0.003	0.027
ASR-1	04/22/2008	Recovery	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.004	0.03
ASR-1	04/29/2008	Injection	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.004	0.031
ASR-1	05/28/2008	Storage	0.002	<0.001	0.02	0.005	<0.002	<0.3	<0.002	<0.2	0.015	0.1	<0.3	0.006	2.6
ASR-1	09/01/2010	Recovery	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	0.002	<0.2	0.001	0.03	<0.3	0.002	0.021
ASR-1	09/02/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.004	0.07	<0.3	0.002	0.019
ASR-1	09/09/2010	Recovery	0.002	<0.001	0.03	<0.001	<0.002	0.5	<0.002	<0.2	<0.001	0.66	<0.3	<0.001	0.016
ASR-1	09/20/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.013
ASR-1	09/29/2010	Recovery	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	0.001	0.013
ASR-1	10/13/2010	Recovery	0.002	<0.001	0.4	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.24	<0.3	<0.001	0.013
ASR-1	10/22/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.014
ASR-1	10/30/2010	Recovery	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	4.67	<0.3	0.002	0.03
ASR-1	11/03/2010	Recovery	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	0.085	<0.2	<0.001	0.02	<0.3	<0.001	0.013
ASR-1	11/12/2010	Recovery	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.01
ASR-1	11/24/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	16.1	<0.3	0.001	0.01
ASR-1	12/15/2010	Storage	0.005	<0.001	0.05	0.003	<0.002	<0.3	<0.002	<0.2	0.023	0.1	<0.3	0.006	2.47
FAMW-1	04/09/2008	Recovery	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.011	<0.2	<0.001	<0.01	<0.3	<0.001	0.043
FAMW-1	04/22/2008	Recovery	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	0.009	<0.2	<0.001	0.2	<0.3	<0.001	0.038
FAMW-1	04/29/2008	Injection	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.009	<0.2	<0.001	0.1	<0.3	<0.001	0.036
FAMW-1	05/07/2008	Injection	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.008	<0.2	<0.001	<0.01	<0.3	0.001	0.034
FAMW-1	05/28/2008	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.003	<0.2	<0.001	<0.01	<0.3	<0.001	0.043
FAMW-1	06/11/2008	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.019	<0.2	<0.001	<0.01	<0.3	<0.001	0.047
FAMW-1	07/03/2008	Storage	0.001	<0.001	0.04	<0.001	<0.002	<0.3	0.003	<0.2	<0.001	<0.01	<0.3	<0.001	0.024
FAMW-1	08/06/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.038
FAMW-1	09/10/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.044
FAMW-1	10/15/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.038
FAMW-1	11/19/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.9	<3	<0.01	0.041
FAMW-1	01/07/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.04
FAMW-1	02/18/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.036
FAMW-1	03/18/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.037
FAMW-1	05/20/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.038
FAMW-1	07/01/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.041

FLORIDA GEOLOGICAL SURVEY

Palm Beach System #3 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
FAMW-1	08/05/2009	Storage	21	<0.1	770000	107000	2	7000	31900	138000	2	1.5	<0.1	<0.5	0.9	20	0.024	3	6.3	1.5	<0.01
FAMW-1	08/19/2009	Storage	21	<0.1	706000	89200	3	6800	29000	97100	2	0.6	<0.1	<0.5	1.8	70	0.021	2.1	5.7	1.1	<0.01
FAMW-1	09/02/2009	Storage	28	<0.1	718000	96000	<2	7200	33800	103000	2	0.5	<0.1	<0.5	0.6	50	0.019	1.5	5.6	2.3	0.02
FAMW-1	09/15/2009	Storage	22	<0.1	693000	89000	3	7200	29800	100000	2	0.1	<0.1	<0.5	0.9	40	0.019	1.1	5.3	1.1	0.01
FAMW-1	10/07/2009	Storage	19	<0.1	502000	71200	<2	7600	24500	87100	3	2.5	0.6	1.4	0.8	40	0.025	0.9	2	1.6	<0.01
FAMW-1	10/22/2009	Storage	21	<0.1	523000	74200	<2	7600	25600	88400	3	2.3	0.7	1.9	0.8	30	0.025	0.7	2.5	1.8	<0.01
FAMW-1	11/18/2009	Storage	21	<0.1	541000	78200	<2	7300	26600	88900	3	2.3	0.7	2.1	1.4	50	0.035	0.8	2.4	2.1	<0.01
FAMW-1	12/02/2009	Storage	21	<0.1	544000	77400	<2	7300	26700	88800	3	2	0.7	1.7	1.1	30	0.027	0.7	1.9	1.7	0.01
FAMW-1	12/23/2009	Storage	23	<0.1	589000	80200	<2	7400	28600	86700	3	2.3	0.8	2	1.4	50	0.041	1.5	2.2	1.9	<0.01
FAMW-1	01/06/2010	Storage	23	<0.1	590000	81500	<2	7300	28800	89600	3	2.3	1	2.6	1.4	40	0.025	0.8	2	1.9	<0.01
FAMW-1	01/20/2010	Storage	19	<0.1	600000	80500	<2	7200	29000	87700	3	2.4	<0.1	<0.5	1.4	30	0.017	0.9	2.7	1.9	0.03
FAMW-1	02/03/2010	Storage	19	<0.1	610000	84300	<2	7300	30100	89900	3	2.4	<0.1	<0.5	1.4	60	0.03	1.5	2.5	1.8	0.01
FAMW-1	02/17/2010	Storage	20	<0.1	626000	83700	<2	7300	30400	89300	3	2.6	<0.1	<0.5	1.5	30	0.048	0.9	2.4	2.2	<0.01
FAMW-1	07/07/2010	Storage	22	<0.1	617000	75200	<2	7500	19400	84000	2	1.2	<0.1	<0.5	1	<10	<0.005	0.5	5.3	7.7	0.02
FAMW-1	08/04/2010	Storage	22	<0.1	660000	80800	<2	7100	18600	88800	1	1.1	<0.1	<0.5	1.1	<10	<0.005	0.5	5.1	7.9	0.01
FAMW-1	09/01/2010	Recovery	23	<0.1	731000	84300	<2	6800	19800	87600	2	1.2	<0.1	<0.5	2.1	60	<0.005	0.6	6	7.6	0.01
FAMW-1	09/02/2010	Recovery	23	<0.1	744000	83400	2	7300	19300	87100	2	1.1	<0.1	<0.5	2.1	<10	<0.005	0.6	5.5	7.7	0.01
FAMW-1	09/09/2010	Recovery	21	<0.1	659000	87200	2	6900	28800	95900	2	1.4	<0.1	<0.5	2.8	<10	<0.005	5.9	13.8	3.9	0.01
FAMW-1	09/20/2010	Recovery	20	<0.1	681000	85300	5	6500	28700	96300	2	1.4	<0.1	<0.5	2.6	50	<0.005	6.3	17	1.4	0.01
FAMW-1	09/29/2010	Recovery	21	<0.1	718000	91200	2	6300	31300	101000	2	1.4	<0.1	<0.5	2.5	<10	<0.005	7.2	15.7	6.1	0.01
FAMW-1	10/13/2010	Recovery	22	<0.1	754000	92000	2	6000	32200	101000	2	1.3	<0.1	<0.5	2.6	<10	<0.005	9.7	15.8	1.3	0.01
FAMW-1	10/22/2010	Recovery	24	<0.1	831000	99500	<2	5900	35400	108000	2	1.5	<0.1	<0.5	2.6	<10	<0.005	14.8	21.9	1.6	0.02
FAMW-1	10/30/2010	Recovery	24	<0.1	845000	105000	<2	5800	36000	108000	2	1.5	<0.1	<0.5	3	20	<0.005	23.9	21	1.6	0.01
FAMW-1	11/03/2010	Recovery	41	<0.1	837000	100000	5	7800	36700	99900	2	1.3	<0.1	<0.5	2.6	<10	<0.005	1.2	9.2	2.1	0.02
FAMW-1	11/12/2010	Recovery	46	<0.1	868000	104000	5	8800	38300	102000	2	1.4	<0.1	<0.5	2.7	<10	<0.005	1.8	12.9	2.2	0.02
FAMW-1	11/24/2010	Recovery	56	<0.1	916000	107000	16	9200	40000	104000	2	1.5	<0.1	<0.5	3.4	<10	<0.005	2	17.5	3.3	0.02
FAMW-1	12/15/2010	Storage	59	<0.1	791000	94000	7	9600	34900	95700	2	1.5	<0.1	<0.5	2	<10	<0.005	2.1	18.8	3.3	0.02
FAMW-1	01/05/2011	Storage	59	<0.1	674000	84600	5	9900	31400	89300	2	1.4	<0.1	<0.5	1.8	<10	<0.005	1.3	16.7	2.9	0.02
FAMW-1	02/02/2011	Storage	61	<0.1	632000	82500	6	10200	30100	87500	2	1.4	<0.1	<0.5	2.3	<10	<0.005	2	16.6	4.3	0.02

REPORT OF INVESTIGATION NO. 112

Palm Beach System #3 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
FAMW-1	08/05/2009	Storage	0.06	1.61	1.4	4360	10.4	13200	0.039	0.05	<0.005	0.1	<0.01	0.01	<0.2	0.02	0.001	<0.1	<0.01	0.7	15
FAMW-1	08/19/2009	Storage	0.05	1.19	<0.2	4250	10.3	9550	0.039	0.04	<0.005	<0.1	<0.01	<0.01	<0.2	0.01	0.001	<0.1	<0.01	0.6	15
FAMW-1	09/02/2009	Storage	0.05	1.23	<0.2	4170	10.5	7730	0.033	0.03	<0.005	<0.1	<0.01	<0.01	<0.2	0.01	0.002	<0.1	<0.01	0.4	17
FAMW-1	09/15/2009	Storage	0.04	1.06	<0.2	4200	10.1	9650	0.037	0.04	<0.005	<0.1	<0.01	<0.01	<0.2	<0.01	0.001	<0.1	<0.01	0.4	15
FAMW-1	10/07/2009	Storage	0.02	1.01	4	3230	8.36	8200	0.018	0.02	<0.005	0.2	0.01	0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.5	13
FAMW-1	10/22/2009	Storage	0.02	0.98	4.5	3260	8.76	7950	0.02	0.01	<0.005	0.1	<0.01	0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.4	8
FAMW-1	11/18/2009	Storage	0.03	1.02	4	3360	8.6	8190	0.019	0.01	<0.005	0.1	<0.01	0.02	<0.2	0.02	<0.001	<0.1	<0.01	0.5	6
FAMW-1	12/02/2009	Storage	0.03	1.09	4.7	3400	8.52	8120	0.018	0.01	<0.005	<0.1	0.01	0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.5	12
FAMW-1	12/23/2009	Storage	0.03	1.3	4.3	3670	9.27	8600	0.019	0.01	<0.005	<0.1	<0.01	0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.5	6
FAMW-1	01/06/2010	Storage	0.02	1.09	4.6	3700	9.08	8520	0.018	0.01	<0.005	<0.1	<0.01	0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.6	6
FAMW-1	01/20/2010	Storage	0.06	1.34	4.8	3800	9.2	8500	0.018	0.04	<0.005	<0.1	<0.01	0.03	<0.2	0.03	<0.001	<0.1	<0.01	0.5	4
FAMW-1	02/03/2010	Storage	0.06	1.3	4.1	4120	9.4	8780	0.017	0.02	<0.005	<0.1	<0.01	0.02	<0.2	0.02	<0.001	<0.1	<0.01	0.4	4
FAMW-1	02/17/2010	Storage	0.06	1.12	3.9	4220	9.84	8630	0.019	0.02	<0.005	<0.1	<0.01	0.02	<0.2	0.02	<0.001	<0.1	<0.01	0.5	4
FAMW-1	07/07/2010	Storage	0.06	<0.03	<0.2	3610	10	7830	0.032	<0.01	<0.005	0.6	0.02	0.01	<0.2	0.05	<0.001	<0.1	0.04	0.1	5
FAMW-1	08/04/2010	Storage	0.01	<0.03	<0.2	3670	9.64	8230	0.032	<0.01	<0.005	0.3	<0.01	0.02	<0.2	0.02	<0.001	<0.1	0.03	<0.1	5
FAMW-1	09/01/2010	Recovery	0.07	<0.03	<0.2	4030	10.4	8370	0.025	<0.01	<0.005	0.2	<0.01	0.01	<0.2	0.06	<0.001	<0.1	0.02	0.2	5
FAMW-1	09/02/2010	Recovery	0.04	<0.03	<0.2	4180	10.4	8350	0.028	<0.01	<0.005	0.4	<0.01	0.03	<0.2	0.05	<0.001	<0.1	0.02	0.1	5
FAMW-1	09/09/2010	Recovery	0.05	2.52	21	3940	11	8350	0.05	0.03	<0.005	0.2	<0.01	0.02	<0.2	<0.01	<0.001	<0.1	0.01	0.4	6
FAMW-1	09/20/2010	Recovery	0.06	2.48	20.4	3940	11.1	8740	0.051	0.03	<0.005	0.2	<0.01	0.03	<0.2	<0.01	<0.001	0.2	0.01	0.5	5
FAMW-1	09/29/2010	Recovery	0.05	2.51	21.9	4220	11.6	9240	0.051	0.03	<0.005	0.2	<0.01	0.03	<0.2	<0.01	<0.001	0.1	0.01	0.5	6
FAMW-1	10/13/2010	Recovery	0.05	2.8	22.9	4490	12.1	9400	0.05	0.02	<0.005	0.2	<0.01	0.02	<0.2	<0.01	<0.001	<0.1	0.01	0.6	6
FAMW-1	10/22/2010	Recovery	0.06	3.1	24.9	5050	12.6	9980	0.053	0.02	<0.005	0.2	<0.01	0.02	<0.2	<0.01	<0.001	0.2	0.01	0.7	6
FAMW-1	10/30/2010	Recovery	0.06	3.3	26.6	5100	12.8	9160	0.053	0.02	<0.005	0.2	<0.01	0.01	<0.2	<0.01	<0.001	<0.1	0.02	0.6	26
FAMW-1	11/03/2010	Recovery	0.11	<0.03	<0.2	5340	14.4	8480	0.051	0.03	0.009	<0.1	0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.07	0.7	18
FAMW-1	11/12/2010	Recovery	0.11	<0.03	<0.2	5490	15.6	8540	0.052	0.03	0.008	<0.1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.05	0.7	17
FAMW-1	11/24/2010	Recovery	0.11	<0.03	<0.2	5990	17.3	8620	0.053	0.03	0.009	<0.1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	0.04	0.6	18
FAMW-1	12/15/2010	Storage	0.11	<0.03	<0.2	5230	16.8	7930	0.052	0.04	0.009	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	0.5	17
FAMW-1	01/05/2011	Storage	0.08	<0.03	<0.2	4160	15.4	7980	0.048	0.03	0.007	<0.1	0.01	0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.4	15
FAMW-1	02/02/2011	Storage	0.09	<0.03	<0.2	3930	15.6	7830	0.046	0.04	0.007	<0.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.3	15

FLORIDA GEOLOGICAL SURVEY

Palm Beach System #3 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
FAMW-1	08/05/2009	Storage	0.035	12.3	0.003	<0.001	<0.001	0.038	0.006	<0.001	0.004	<0.001	0.017	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	08/19/2009	Storage	0.036	11.9	0.003	0.002	0.001	0.025	0.003	<0.001	0.004	<0.001	0.015	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	09/02/2009	Storage	0.042	18.8	0.002	0.002	<0.001	0.032	0.004	<0.001	0.003	<0.001	0.013	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	09/15/2009	Storage	0.035	11.9	0.004	0.003	<0.001	0.025	0.002	<0.001	0.004	<0.001	0.012	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	10/07/2009	Storage	0.028	11.7	0.003	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	10/22/2009	Storage	0.029	11.4	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	11/18/2009	Storage	0.03	11.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	12/02/2009	Storage	0.03	11.3	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	12/23/2009	Storage	0.031	11.9	0.001	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	01/06/2010	Storage	0.031	11.6	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	01/20/2010	Storage	0.034	12.4	0.002	0.001	<0.001	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	02/03/2010	Storage	0.034	12.1	0.002	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	02/17/2010	Storage	0.034	12.3	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	07/07/2010	Storage	0.036	12.1	<0.001	<0.001	<0.001	0.013	0.015	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001
FAMW-1	08/04/2010	Storage	0.034	11.9	0.01	0.014	0.001	0.023	0.023	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
FAMW-1	09/01/2010	Recovery	0.039	12.5	0.001	<0.001	0.001	0.018	0.022	0.002	<0.001	<0.001	0.003	<0.001	0.002	<0.001	<0.001	<0.001
FAMW-1	09/02/2010	Recovery	0.04	12.2	<0.001	<0.001	0.001	0.046	0.016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	09/09/2010	Recovery	0.033	12.5	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	09/20/2010	Recovery	0.034	12.5	0.005	0.007	0.001	0.004	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	09/29/2010	Recovery	0.031	12.9	0.003	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	10/13/2010	Recovery	0.033	13.2	0.003	0.003	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	10/22/2010	Recovery	0.035	13.4	0.003	0.002	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	10/30/2010	Recovery	0.035	13.9	0.003	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	11/03/2010	Recovery	0.043	15.2	0.006	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	11/12/2010	Recovery	0.044	14.5	0.012	0.012	<0.001	0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	11/24/2010	Recovery	0.046	14.8	0.005	0.005	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	12/15/2010	Storage	0.04	14	0.004	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
FAMW-1	01/05/2011	Storage	0.035	12.6	0.003	0.003	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001
FAMW-1	02/02/2011	Storage	0.034	12.4	0.003	0.003	0.001	0.004	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Palm Beach System #3 ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
FAMW-1	08/05/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.038
FAMW-1	08/19/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.035
FAMW-1	09/02/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.003	<0.2	<0.001	<0.01	<0.3	<0.001	0.02
FAMW-1	09/15/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.039
FAMW-1	10/07/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.002	<0.01	<0.3	<0.001	0.029
FAMW-1	10/22/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.001	<0.01	<0.3	<0.001	0.032
FAMW-1	11/18/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.001	0.02	<0.3	<0.001	0.032
FAMW-1	12/02/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.002	<0.01	<0.3	<0.001	0.03
FAMW-1	12/23/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.002	<0.01	<0.3	<0.001	0.031
FAMW-1	01/06/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.002	<0.01	<0.3	<0.001	0.033
FAMW-1	01/20/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.001	0.01	<0.3	<0.001	0.03
FAMW-1	02/03/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.032
FAMW-1	02/17/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.031
FAMW-1	07/07/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.004	<0.2	0.004	0.05	<0.3	0.001	0.036
FAMW-1	08/04/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	0.002	0.06	<0.3	<0.001	0.032
FAMW-1	09/01/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.009	<0.2	0.006	0.07	<0.3	0.001	0.036
FAMW-1	09/02/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	0.006	0.06	<0.3	<0.001	0.032
FAMW-1	09/09/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.032
FAMW-1	09/20/2010	Recovery	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	0.34	<0.3	0.002	0.03
FAMW-1	09/29/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	0.1	<0.3	<0.001	0.033
FAMW-1	10/13/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.033
FAMW-1	10/22/2010	Recovery	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.3	<0.3	<0.001	0.035
FAMW-1	10/30/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.032
FAMW-1	11/03/2010	Recovery	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	0.001	0.026
FAMW-1	11/12/2010	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.001	0.026
FAMW-1	11/24/2010	Recovery	<0.001	<0.001	0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.027
FAMW-1	12/15/2010	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.025
FAMW-1	01/05/2011	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.019
FAMW-1	02/02/2011	Storage	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.027

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-8	09/03/2008	Injection	14	<1	65200	42300	<20	10800	4760	69700	<10	2.2	<1	<5	23.2	1280	<0.05	5	4.2	23.6	<0.1
M-8	11/03/2008	Injection	14	<1	63700	41400	<20	10300	4800	67300	<10	1.8	<1	<5	22.9	1380	<0.05	29.2	26.2	89.4	<0.1
M-8	01/02/2009	Recovery	14	<1	62800	41800	<20	8800	4900	62400	<10	1.3	<1	<5	25.3	490	0.11	<3	<2	11.6	<0.1
M-8	02/26/2009	Recovery	14	<1	67000	43600	<20	10600	4920	67500	<10	2	<1	<5	1.9	<100	<0.05	3.7	<2	14.5	<0.1
M-8	04/01/2009	Recovery	14	<1	69800	46300	25	12200	4900	82500	<10	2.5	<1	<5	3.4	<100	<0.05	12	27.8	28.1	<0.1
M-8	06/19/2009	Storage	12	<1	67200	46400	<20	9200	4930	69000	<10	<1	<1	<5	23.1	900	<0.05	<3	<2	<5	<0.1
M-8	07/30/2009	Injection	12	<0.1	76900	44700	7	9600	4960	65100	3	1.8	<0.1	<0.5	27.6	2530	<0.005	9.6	9.5	14.3	<0.01
M-8	08/27/2009	Injection	12	<0.1	74600	43200	<2	9000	4910	60600	3	1.5	<0.1	<0.5	25.1	1530	<0.005	4.8	2.2	13.8	<0.01
M-8	09/18/2009	Storage	12	<0.1	73300	43500	<2	9400	4980	63200	3	1.5	<0.1	<0.5	24.9	1350	<0.005	1	0.6	6.6	<0.01
M-8	10/29/2009	Storage	12	<0.1	71700	42400	<2	8600	4910	60200	2	1.5	<0.1	<0.5	23.9	1090	<0.005	0.8	<0.2	6.8	<0.01
M-8	11/24/2009	Storage	12	<0.1	71200	41700	<2	8500	5100	58000	3	1.5	<0.1	<0.5	24.1	1140	<0.005	1.8	0.9	7.4	<0.01
M-8	12/11/2009	Storage	12	<0.1	69200	40800	<2	8000	5040	55300	2	1.4	<0.1	<0.5	24.8	1270	<0.005	<0.3	<0.2	3.8	<0.01
M-8	08/02/2010	Injection	14	<0.1	65000	40900	<2	9100	6890	52300	2	1.3	<0.1	<0.5	21.4	1330	0.035	2.9	0.9	4.6	<0.01
M-8	08/18/2010	Injection	14	<0.1	65300	40600	<2	8800	6850	51300	2	1	<0.1	<0.5	21.6	1200	0.043	7.3	3.5	9.8	<0.01
M-8	10/04/2010	Storage	11	<0.1	65400	40500	<2	8500	5310	49700	2	1.4	<0.1	<0.5	17.9	1000	0.016	15.5	4.3	18.2	<0.01
M-8	11/02/2010	Storage	14	<0.1	66500	41000	<2	8100	6800	49200	2	0.9	<0.1	<0.5	20.1	1150	0.099	42.1	10.9	44.1	<0.01
M-8	12/10/2010	Storage	9	<0.1	66300	39100	<2	5300	3900	47100	1	0.7	<0.1	0.6	14.2	650	0.043	24.3	4.7	21.4	<0.01
M-8	12/30/2010	Storage	15	<0.1	65100	40300	4	6800	6560	48600	2	1.1	<0.1	<0.5	19.5	840	0.01	1.6	24.3	20	<0.01
M-8	04/06/2011	Storage	17	<0.1	62600	37600	<2	6000	7000	42000	1	1	<0.1	<0.5	19.4	560	0.038	43.8	8.1	34.1	<0.01
M-8	05/18/2011	Storage	15	<0.1	64000	38000	<2	5500	6320	42200	1	1.1	<0.1	<0.5	3.1	40	0.008	7.7	2.4	27	<0.01
M-8	06/13/2011	Storage	17	<0.1	63000	37400	<2	5400	7020	39600	1	0.9	<0.1	<0.5	18.8	520	0.006	1.2	0.2	5.5	<0.01
M-11	05/09/2008	Storage	13	<1	67500	44900	<20	11400	5190	70800	<10	1.8	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
M-11	07/11/2008	Injection	15	<1	70400	45700	31	12000	5590	73200	<10	1.9	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
M-11	08/08/2008	Injection	15	<1	73600	46800	41	12000	5370	72900	<10	2.3	<1	<5	<1	<100	<0.05	5.3	<2	6.1	<0.1
M-11	09/11/2008	Injection	13	<1	64800	43600	<20	10700	5120	66500	<10	2	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
M-11	10/17/2008	Injection	13	<1	65200	44700	23	10900	5070	68000	<10	2	<1	<5	<1	<100	<0.05	<3	<2	29.9	<0.1
M-11	11/14/2008	Injection	13	<1	64000	42800	21	10500	4970	65300	<10	1.8	<1	<5	<1	<100	0.055	28.6	<2	6.3	<0.1
M-11	01/02/2009	Recovery	13	<1	63900	43000	112	9800	4940	65100	<10	2.3	<1	<5	<1	<100	<0.05	<3	3.2	37.1	<0.1
M-11	02/26/2009	Recovery	14	<1	66300	44500	21	10700	5240	68100	<10	1.9	<1	<5	<1	<100	0.09	<3	4.2	39.3	<0.1
M-11	06/15/2009	Storage	13	<1	60400	43200	26	11100	5050	68600	<10	2.5	<1	<5	<1	<100	<0.05	<3	<2	6.5	<0.1
M-11	07/27/2009	Injection	13	<0.1	65300	41700	37	12700	5580	70700	4	2.3	<0.1	<0.5	0.2	<10	<0.005	0.6	4.8	5	0.01
M-11	08/27/2009	Injection	13	<0.1	68800	42900	<2	11700	4880	65000	4	2.2	<0.1	<0.5	<0.1	20	<0.005	<0.3	<0.2	3.5	0.01
M-11	09/18/2009	Storage	13	<0.1	69100	42600	<2	12000	4930	67000	4	2.2	<0.1	<0.5	<0.1	20	<0.005	<0.3	<0.2	3.3	<0.01

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-8	09/03/2008	Injection	0.18	<0.3	<2	433	2.94	5060	0.046	<0.1	<0.05	1.9	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
M-8	11/03/2008	Injection	0.14	<0.3	<2	407	2.93	5060	0.04	<0.1	<0.05	2.3	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	22
M-8	01/02/2009	Recovery	<0.1	<0.3	<2	401	2.93	5060	0.075	<0.1	<0.05	7.8	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	14
M-8	02/26/2009	Recovery	0.14	<0.3	<2	420	3	5060	0.045	<0.1	<0.05	3.7	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	37
M-8	04/01/2009	Recovery	0.17	<0.3	<2	445	3.01	5050	0.05	<0.1	<0.05	2.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	83
M-8	06/19/2009	Storage	0.23	<0.3	<2	429	2.97	5060	0.059	<0.1	<0.05	2.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	18
M-8	07/30/2009	Injection	0.14	0.05	<0.2	555	3.03	16400	0.101	0.03	<0.005	2.8	<0.01	<0.01	<0.2	0.01	<0.001	0.1	0.01	0.2	7
M-8	08/27/2009	Injection	0.12	<0.03	<0.2	563	2.91	9070	0.1	0.02	<0.005	1.9	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.1	6
M-8	09/18/2009	Storage	0.12	<0.03	<0.2	579	2.98	9080	0.098	0.02	<0.005	1.9	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.1	7
M-8	10/29/2009	Storage	0.13	<0.03	<0.2	520	2.88	9070	0.098	0.02	<0.005	1.9	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.1	11
M-8	11/24/2009	Storage	0.11	<0.03	<0.2	527	2.84	9060	0.094	0.01	<0.005	2.3	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.2	12
M-8	12/11/2009	Storage	0.1	<0.03	<0.2	526	2.87	9070	0.092	0.01	<0.005	2.5	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.1	11
M-8	08/02/2010	Injection	0.11	0.14	<0.2	460	3.28	11100	0.04	0.01	<0.005	2.8	0.03	<0.01	<0.2	0.01	<0.001	<0.1	0.01	<0.1	16
M-8	08/18/2010	Injection	0.14	0.32	0.3	475	3.3	11100	0.039	<0.01	<0.005	2.7	0.05	<0.01	<0.2	0.02	<0.001	0.2	<0.01	<0.1	16
M-8	10/04/2010	Storage	0.12	0.03	<0.2	482	3.21	11100	0.064	<0.01	<0.005	3.1	0.1	<0.01	<0.2	0.03	<0.001	0.1	<0.01	<0.1	5
M-8	11/02/2010	Storage	0.07	0.22	<0.2	474	3.41	11100	0.044	<0.01	<0.005	3.4	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	18
M-8	12/10/2010	Storage	0.09	0.09	<0.2	348	2.45	5690	0.035	0.02	<0.005	3.3	0.05	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	<0.1	10
M-8	12/30/2010	Storage	0.09	0.15	<0.2	466	3.26	11100	0.043	0.01	<0.005	4.4	0.04	9.99	<0.2	<0.01	<0.001	<0.1	<0.01	9.9	23
M-8	04/06/2011	Storage	0.1	0.14	<0.2	440	3.18	11100	0.044	0.01	<0.005	5.5	0.08	10	<0.2	0.02	<0.001	0.1	<0.01	9.9	28
M-8	05/18/2011	Storage	0.04	0.2	<0.2	392	2.87	11100	0.037	<0.01	<0.005	5.5	0.02	9.99	<0.2	0.02	<0.001	0.1	<0.01	9.9	31
M-8	06/13/2011	Storage	0.08	0.25	<0.2	438	3.16	11100	0.04	0.01	<0.005	5.8	0.05	10	<0.2	<0.01	<0.001	<0.1	<0.01	10	34
M-11	05/09/2008	Storage	0.22	<0.3	<2	404	3.01	5100	<0.03	<0.1	<0.05	4.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	14
M-11	07/11/2008	Injection	0.22	<0.3	<2	430	4.08	5090	0.033	0.12	<0.05	3.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	14
M-11	08/08/2008	Injection	0.23	<0.3	<2	431	3.13	5100	0.043	0.25	<0.05	3.1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	14
M-11	09/11/2008	Injection	0.26	<0.3	<2	407	2.95	5100	0.038	<0.1	<0.05	3.7	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	16
M-11	10/17/2008	Injection	0.29	<0.3	<2	434	3.05	5110	0.037	<0.1	<0.05	2.4	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
M-11	11/14/2008	Injection	0.2	<0.3	<2	417	2.84	5090	0.034	<0.1	<0.05	2.4	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
M-11	01/02/2009	Recovery	0.2	<0.3	<2	403	2.91	5100	0.033	0.29	<0.05	2.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
M-11	02/26/2009	Recovery	0.15	<0.3	<2	417	3.66	5100	0.033	<0.1	<0.05	2.3	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	72
M-11	06/15/2009	Storage	0.19	<0.3	<2	392	3.06	5090	0.033	0.11	<0.05	3	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	20
M-11	07/27/2009	Injection	0.2	0.12	<0.2	486	3.02	9000	0.087	0.03	<0.005	3.2	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	0.08	0.1	19
M-11	08/27/2009	Injection	0.21	0.19	0.5	459	3.27	8950	0.078	0.04	<0.005	2.3	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.1	10
M-11	09/18/2009	Storage	0.2	0.1	0.3	467	3.31	8990	0.079	0.02	<0.005	2.4	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	10

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-8	09/03/2008	Injection	0.023	31	0.539	0.494	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-8	11/03/2008	Injection	0.011	31.3	0.26	0.262	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-8	01/02/2009	Recovery	0.018	30.9	0.568	0.548	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-8	02/26/2009	Recovery	0.013	29.3	0.169	0.164	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-8	04/01/2009	Recovery	0.017	29	0.18	0.179	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-8	06/19/2009	Storage	<0.01	33.5	0.018	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-8	07/30/2009	Injection	0.009	33.7	0.002	0.004	<0.001	0.003	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	08/27/2009	Injection	0.008	32.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	09/18/2009	Storage	0.007	32.9	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	10/29/2009	Storage	0.008	31.9	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	11/24/2009	Storage	0.007	33.1	<0.001	<0.001	<0.001	0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	12/11/2009	Storage	0.008	33.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	08/02/2010	Injection	0.006	38.9	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	08/18/2010	Injection	0.005	39.3	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	10/04/2010	Storage	0.006	39.9	<0.001	<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	11/02/2010	Storage	0.007	40.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	12/10/2010	Storage	0.004	31.6	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	12/30/2010	Storage	0.005	42.3	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	04/06/2011	Storage	0.005	40.8	0.003	0.002	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	05/18/2011	Storage	0.01	33.5	0.002	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-8	06/13/2011	Storage	0.005	44.9	0.002	0.003	<0.001	0.004	<0.001	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	05/09/2008	Storage	0.012	31.3	0.104	0.095	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	07/11/2008	Injection	0.11	31.9	0.2	0.19	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	08/08/2008	Injection	0.039	32.7	0.314	0.305	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	09/11/2008	Injection	0.018	31.8	0.058	0.055	<0.01	<0.01	0.014	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	10/17/2008	Injection	0.028	33.3	0.282	0.278	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	11/14/2008	Injection	0.022	33.9	0.345	0.316	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	01/02/2009	Recovery	0.018	31.6	0.168	0.161	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	02/26/2009	Recovery	0.073	32.8	0.244	0.227	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	06/15/2009	Storage	0.046	31.5	0.53	0.514	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-11	07/27/2009	Injection	0.033	30.5	0.02	0.031	0.004	0.014	0.004	0.003	0.004	<0.001	0.003	<0.001	0.001	<0.001	<0.001	<0.001
M-11	08/27/2009	Injection	0.012	33.6	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	09/18/2009	Storage	0.013	33.4	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-8	09/03/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.23	<3	<0.01	<0.01
M-8	11/03/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.67	<3	<0.01	<0.01
M-8	01/02/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.23	<3	<0.01	<0.01
M-8	02/26/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.18	<3	<0.01	<0.01
M-8	04/01/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	5.02	<3	<0.01	0.021
M-8	06/19/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	<0.01
M-8	07/30/2009	Injection	<0.001	<0.001	0.03	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	0.47	<0.3	0.001	0.002
M-8	08/27/2009	Injection	<0.001	<0.001	0.03	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	<0.001	<0.001
M-8	09/18/2009	Storage	<0.001	<0.001	0.03	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	<0.001
M-8	10/29/2009	Storage	<0.001	<0.001	0.04	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	<0.001
M-8	11/24/2009	Storage	<0.001	<0.001	0.03	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	<0.001
M-8	12/11/2009	Storage	<0.001	<0.001	0.03	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	<0.001
M-8	08/02/2010	Injection	<0.001	<0.001	0.03	0.005	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	<0.001	<0.001
M-8	08/18/2010	Injection	<0.001	<0.001	0.05	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	0.3	<0.3	0.002	<0.001
M-8	10/04/2010	Storage	<0.001	<0.001	0.04	0.003	<0.002	<0.3	0.004	<0.2	<0.001	0.4	<0.3	0.009	<0.001
M-8	11/02/2010	Storage	<0.001	<0.001	0.04	0.005	<0.002	<0.3	0.002	<0.2	<0.001	0.2	<0.3	0.001	<0.001
M-8	12/10/2010	Storage	<0.001	<0.001	0.03	0.004	<0.002	<0.3	0.003	<0.2	<0.001	0.2	<0.3	0.003	<0.001
M-8	12/30/2010	Storage	0.002	<0.001	0.03	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.2	<0.3	<0.001	<0.001
M-8	04/06/2011	Storage	0.003	<0.001	0.05	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	0.6	<0.3	<0.001	<0.001
M-8	05/18/2011	Storage	0.002	<0.001	0.04	0.005	<0.002	<0.3	<0.002	<0.2	<0.001	0.4	<0.3	<0.001	<0.001
M-8	06/13/2011	Storage	<0.001	<0.001	0.05	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	<0.001
M-11	05/09/2008	Storage	<0.01	0.032	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.11	<3	<0.01	0.015
M-11	07/11/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.2	<3	<0.01	0.019
M-11	08/08/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.2	<3	<0.01	0.018
M-11	09/11/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.29	<3	0.012	0.014
M-11	10/17/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.27	<3	0.01	0.016
M-11	11/14/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.36	<3	<0.01	0.01
M-11	01/02/2009	Recovery	0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.19	<3	<0.01	0.013
M-11	02/26/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.11	<3	<0.01	0.014
M-11	06/15/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.29	<3	<0.01	0.016
M-11	07/27/2009	Injection	0.001	<0.001	0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	0.09	<0.3	0.005	0.021
M-11	08/27/2009	Injection	<0.001	<0.001	0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
M-11	09/18/2009	Storage	<0.001	<0.001	0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.009

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-11	10/29/2009	Storage	13	<0.1	68900	43100	<2	11900	4880	66000	4	2.2	<0.1	<0.5	0.1	20	<0.005	<0.3	<0.2	3.4	<0.01
M-11	11/24/2009	Storage	12	<0.1	65400	40600	<2	11700	4910	64200	4	2	<0.1	<0.5	0.1	20	<0.005	<0.3	<0.2	3.9	<0.01
M-11	12/11/2009	Storage	13	<0.1	66900	40400	<2	11700	4860	65400	4	2.1	<0.1	<0.5	0.1	20	<0.005	<0.3	<0.2	3.3	<0.01
M-11	08/04/2010	Injection	15	<0.1	64400	41600	<2	14000	7220	64400	3	1.7	<0.1	<0.5	0.3	40	<0.005	<0.3	<0.2	0.5	<0.01
M-11	08/18/2010	Injection	14	<0.1	66200	42400	<2	13200	6820	66200	2	1.4	<0.1	<0.5	0.2	40	<0.005	<0.3	0.7	0.9	<0.01
M-11	10/06/2010	Storage	14	<0.1	66000	42700	<2	13800	6920	65200	2	1.3	<0.1	<0.5	<0.1	40	<0.005	<0.3	<0.2	0.5	0.01
M-11	11/17/2010	Storage	13	<0.1	66300	42500	2	13500	6820	65900	2	1.5	<0.1	<0.5	0.1	40	0.006	<0.3	0.2	0.7	<0.01
M-11	12/30/2010	Storage	14	<0.1	65900	42100	<2	13600	6920	64800	2	1.4	<0.1	<0.5	0.2	40	<0.005	<0.3	<0.2	0.6	<0.01
M-11	04/21/2011	Storage	13	<0.1	65000	41200	<2	13400	6960	64300	3	1.5	<0.1	<0.5	0.1	40	<0.005	<0.3	0.2	0.9	<0.01
M-11	05/18/2011	Storage	12	<0.1	64800	41300	<2	13500	5940	65100	4	2.2	<0.1	<0.5	2	<10	<0.005	0.7	3.2	49.2	<0.01
M-11	06/13/2011	Storage	11	<0.1	65700	41900	<2	13400	5840	65900	4	2.2	<0.1	<0.5	0.7	<10	<0.005	<0.3	<0.2	<0.5	<0.01
M-13	05/09/2008	Storage	15	<1	71900	49100	<20	11300	5150	72800	<10	2.2	<1	<5	<1	<100	<0.05	<3	<2	6.4	<0.1
M-13	07/11/2008	Injection	14	<1	74800	50600	33	11000	4970	71700	<10	2.8	<1	<5	<1	<100	<0.05	<3	<2	33.9	<0.1
M-13	08/08/2008	Injection	16	<1	77000	51300	<20	11500	5180	76100	<10	2.9	<1	<5	<1	<100	<0.05	<3	<2	6.4	<0.1
M-13	09/11/2008	Injection	15	<1	76400	51000	<20	11300	5160	73800	<10	2.4	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
M-13	10/17/2008	Injection	14	<1	74200	48400	<20	10700	4950	71000	<10	2.1	<1	<5	<1	<100	<0.05	<3	<2	9.8	<0.1
M-13	11/14/2008	Injection	14	<1	76500	50400	<20	11000	5120	72900	<10	2	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
M-13	01/02/2009	Recovery	17	<1	79500	52700	23	11900	5420	77100	<10	2.4	<1	<5	<1	<100	<0.05	<3	<2	77.4	<0.1
M-13	02/26/2009	Recovery	14	<1	73600	48700	<20	11000	5120	72000	<10	1.9	<1	<5	1.7	<100	<0.05	<3	<2	67.3	<0.1
M-13	06/15/2009	Storage	14	<1	69200	47200	677	11300	5180	73100	<10	2.7	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
M-13	07/27/2009	Injection	13	<0.1	78800	46800	<2	12100	4950	71600	4	2.3	<0.1	<0.5	1.2	20	<0.005	<0.3	<0.2	5.1	0.01
M-13	08/27/2009	Injection	14	<0.1	82500	49600	<2	12300	4920	71400	4	2.2	<0.1	<0.5	0.3	20	<0.005	<0.3	<0.2	3.3	0.01
M-13	09/18/2009	Storage	13	<0.1	81900	48100	<2	11900	4850	69900	4	2.1	<0.1	<0.5	0.4	20	<0.005	<0.3	<0.2	3.3	<0.01
M-13	10/29/2009	Storage	13	<0.1	80400	48100	<2	11700	4720	70300	4	2.1	<0.1	<0.5	0.3	20	<0.005	<0.3	<0.2	3.4	<0.01
M-13	11/24/2009	Storage	14	<0.1	81700	48300	<2	11900	4840	68200	4	2.2	<0.1	<0.5	0.2	20	<0.005	<0.3	<0.2	6.2	<0.01
M-13	12/11/2009	Storage	14	<0.1	81300	47700	<2	11900	4890	70900	4	2.2	<0.1	<0.5	0.2	30	<0.005	<0.3	<0.2	3.3	0.01
M-13	08/04/2010	Injection	13	<0.1	73900	46000	11	14800	5990	68200	4	2.4	<0.1	<0.5	0.2	<10	<0.005	<0.3	<0.2	<0.5	0.01
M-13	08/18/2010	Injection	11	<0.1	73200	45900	<2	13700	5580	68700	4	2.2	0.1	<0.5	0.2	<10	<0.005	<0.3	<0.2	<0.5	<0.01
M-13	10/06/2010	Storage	12	<0.1	74900	45800	<2	14200	5810	68100	4	2.3	0.2	0.6	0.2	<10	<0.005	<0.3	<0.2	<0.5	0.01
M-13	11/02/2010	Storage	12	<0.1	75000	45800	<2	15000	5960	68000	4	2.3	0.3	0.7	0.3	<10	0.006	<0.3	<0.2	<0.5	0.01
M-13	12/09/2010	Storage	11	<0.1	75300	46100	<2	13800	5530	68300	4	2.2	0.3	0.9	0.4	<10	0.01	<0.3	<0.2	<0.5	<0.01
M-13	12/30/2010	Storage	11	<0.1	91100	54600	<2	14600	5730	81800	4	2.3	0.3	0.9	0.4	<10	<0.005	<0.3	<0.2	<0.5	0.01
M-13	04/21/2011	Storage	13	<0.1	77100	48200	4	15100	6950	70100	3	1.7	<0.1	<0.5	0.4	40	<0.005	<0.3	<0.2	9.7	<0.01

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-11	10/29/2009	Storage	0.22	0.15	0.8	472	3.31	9000	0.079	0.02	<0.005	2.5	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	5
M-11	11/24/2009	Storage	0.12	0.09	0.3	474	3.31	8930	0.079	0.02	<0.005	2.1	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	<0.1	7
M-11	12/11/2009	Storage	0.22	0.1	0.4	469	3.3	8960	0.079	0.02	<0.005	2.5	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	0.1	8
M-11	08/04/2010	Injection	0.21	0.14	<0.2	462	3.37	10500	0.033	<0.01	<0.005	3.8	0.03	10	<0.2	<0.01	<0.001	<0.1	<0.01	10	30
M-11	08/18/2010	Injection	0.21	0.17	<0.2	450	3.27	10800	0.035	0.01	<0.005	3.7	0.03	10	<0.2	<0.01	<0.001	<0.1	<0.01	10	31
M-11	10/06/2010	Storage	0.2	0.25	<0.2	457	3.23	10500	0.032	0.01	<0.005	4.1	0.05	10	<0.2	<0.01	<0.001	<0.1	<0.01	9.9	33
M-11	11/17/2010	Storage	0.19	<0.03	<0.2	454	3.27	10500	0.034	<0.01	<0.005	4.9	0.05	10	<0.2	<0.01	<0.001	<0.1	<0.01	10	32
M-11	12/30/2010	Storage	0.22	0.14	<0.2	449	3.21	10400	0.037	<0.01	<0.005	4.1	<0.01	10	<0.2	<0.01	<0.001	<0.1	<0.01	9.9	32
M-11	04/21/2011	Storage	0.19	0.14	<0.2	448	3.37	10600	0.03	<0.01	<0.005	5.9	0.03	10	<0.2	<0.01	<0.001	<0.1	<0.01	9.9	29
M-11	05/18/2011	Storage	0.15	0.1	<0.2	435	3.23	10400	0.053	<0.01	<0.005	4.7	0.07	<0.01	<0.2	0.02	<0.001	<0.1	0.01	<0.1	4
M-11	06/13/2011	Storage	0.17	0.17	<0.2	422	3.15	10700	0.053	<0.01	<0.005	4.9	0.06	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	4
M-13	05/09/2008	Storage	0.15	<0.3	<2	475	3.24	5080	0.039	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	18
M-13	07/11/2008	Injection	0.19	<0.3	<2	474	3	5080	0.046	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
M-13	08/08/2008	Injection	0.22	<0.3	<2	510	3.2	5080	0.037	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	19
M-13	09/11/2008	Injection	0.23	<0.3	<2	512	3.3	5080	0.039	0.12	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	18
M-13	10/17/2008	Injection	0.2	<0.3	<2	491	3.06	5090	0.037	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	17
M-13	11/14/2008	Injection	0.2	<0.3	<2	489	3.25	5070	0.037	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	19
M-13	01/02/2009	Recovery	0.23	<0.3	<2	513	3.45	5090	<0.03	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	18
M-13	02/26/2009	Recovery	0.15	<0.3	<2	476	3.16	5080	0.039	<0.1	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	81
M-13	06/15/2009	Storage	0.23	<0.3	<2	448	3.23	5070	0.048	0.11	<0.05	<1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	21
M-13	07/27/2009	Injection	0.21	0.11	0.2	516	3.49	13600	0.081	0.01	<0.005	0.8	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	12
M-13	08/27/2009	Injection	0.21	0.07	0.3	543	3.47	13400	0.088	0.02	<0.005	0.7	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	11
M-13	09/18/2009	Storage	0.22	0.11	0.4	531	3.39	13000	0.082	0.02	<0.005	0.7	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	8
M-13	10/29/2009	Storage	0.22	0.07	0.3	533	3.4	12600	0.08	0.02	<0.005	0.8	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	5
M-13	11/24/2009	Storage	0.15	0.13	<0.2	540	3.47	12800	0.082	0.01	<0.005	0.8	<0.01	<0.01	<0.2	<0.01	<0.001	0.2	<0.01	0.1	8
M-13	12/11/2009	Storage	0.22	0.08	<0.2	545	3.53	12700	0.081	0.01	<0.005	0.9	<0.01	0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	8
M-13	08/04/2010	Injection	0.25	0.14	<0.2	509	3.31	11000	0.056	<0.01	<0.005	0.8	0.08	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	9
M-13	08/18/2010	Injection	0.21	0.22	0.3	472	3.15	11000	0.053	<0.01	<0.005	0.9	0.07	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	9
M-13	10/06/2010	Storage	0.24	0.21	0.2	488	3.22	11000	0.051	<0.01	<0.005	0.9	0.08	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	9
M-13	11/02/2010	Storage	0.24	0.26	0.4	491	3.34	10900	0.052	<0.01	<0.005	1.1	0.07	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	9
M-13	12/09/2010	Storage	0.22	0.29	0.5	478	3.28	10900	0.05	<0.01	<0.005	1	0.08	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	9
M-13	12/30/2010	Storage	0.23	0.23	0.4	486	3.3	11100	0.054	<0.01	<0.005	1.3	0.07	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	9
M-13	04/21/2011	Storage	0.21	<0.03	<0.2	507	3.46	11900	0.042	<0.01	<0.005	1.6	0.06	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	24

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-11	10/29/2009	Storage	0.014	34	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	11/24/2009	Storage	0.014	33.9	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	12/11/2009	Storage	0.016	34.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	08/04/2010	Injection	0.022	34.2	0.002	0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	08/18/2010	Injection	0.019	33.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	10/06/2010	Storage	0.011	34.7	0.002	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	11/17/2010	Storage	0.014	33.6	0.011	0.029	0.002	0.004	<0.001	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	12/30/2010	Storage	0.015	34	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	04/21/2011	Storage	0.013	33.2	0.003	0.003	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	05/18/2011	Storage	0.014	31.3	0.002	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-11	06/13/2011	Storage	0.017	30.6	0.002	0.001	<0.001	0.002	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	05/09/2008	Storage	0.033	33.1	0.249	0.253	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	07/11/2008	Injection	0.058	33.2	2.04	1.95	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	08/08/2008	Injection	0.022	33.5	0.163	0.162	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	09/11/2008	Injection	0.093	33.2	0.11	0.105	<0.01	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	10/17/2008	Injection	0.035	33.2	0.05	0.048	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	11/14/2008	Injection	0.028	33.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	01/02/2009	Recovery	0.058	36.1	0.057	0.055	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	02/26/2009	Recovery	0.025	33.1	0.018	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	06/15/2009	Storage	0.041	31.5	0.046	0.075	<0.01	0.029	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-13	07/27/2009	Injection	0.021	32.3	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	08/27/2009	Injection	0.019	34.1	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	09/18/2009	Storage	0.017	33.4	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	10/29/2009	Storage	0.018	33.3	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	11/24/2009	Storage	0.018	33.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	12/11/2009	Storage	0.019	33.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	08/04/2010	Injection	0.016	32.3	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	08/18/2010	Injection	0.016	31	0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	10/06/2010	Storage	0.018	31.7	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	11/02/2010	Storage	0.018	31.7	0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	12/09/2010	Storage	0.021	32.4	0.001	<0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	12/30/2010	Storage	0.021	32.7	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-13	04/21/2011	Storage	0.019	33.4	0.004	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-11	10/29/2009	Storage	<0.001	<0.001	0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.009
M-11	11/24/2009	Storage	<0.001	<0.001	0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.009
M-11	12/11/2009	Storage	<0.001	<0.001	0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
M-11	08/04/2010	Injection	0.002	<0.001	0.03	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	<0.001
M-11	08/18/2010	Injection	<0.001	<0.001	0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.006
M-11	10/06/2010	Storage	<0.001	<0.001	<0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	<0.001
M-11	11/17/2010	Storage	0.002	<0.001	0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.001
M-11	12/30/2010	Storage	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.001
M-11	04/21/2011	Storage	<0.001	<0.001	0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	<0.001
M-11	05/18/2011	Storage	<0.001	<0.001	<0.02	0.005	<0.002	<0.3	0.004	<0.2	0.002	0.2	<0.3	0.006	0.008
M-11	06/13/2011	Storage	<0.001	<0.001	<0.02	0.005	<0.002	<0.3	0.003	<0.2	<0.001	<0.01	<0.3	0.007	0.009
M-13	05/09/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.53	<3	<0.01	0.014
M-13	07/11/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.26	<3	<0.01	0.015
M-13	08/08/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.26	<3	<0.01	0.017
M-13	09/11/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.016
M-13	10/17/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.1	<3	<0.01	0.015
M-13	11/14/2008	Injection	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.1	<3	<0.01	0.011
M-13	01/02/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.38	<3	<0.01	0.013
M-13	02/26/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.13	<3	<0.01	0.013
M-13	06/15/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.26	<3	0.013	0.024
M-13	07/27/2009	Injection	<0.001	<0.001	0.03	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.012
M-13	08/27/2009	Injection	<0.001	<0.001	0.03	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.014
M-13	09/18/2009	Storage	<0.001	<0.001	0.02	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.013
M-13	10/29/2009	Storage	<0.001	<0.001	0.03	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.012
M-13	11/24/2009	Storage	<0.001	<0.001	0.05	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.012
M-13	12/11/2009	Storage	<0.001	<0.001	0.07	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.014
M-13	08/04/2010	Injection	<0.001	<0.001	0.09	0.001	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	0.004	0.012
M-13	08/18/2010	Injection	<0.001	<0.001	0.08	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.004	0.014
M-13	10/06/2010	Storage	<0.001	<0.001	0.04	0.001	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	0.003	0.016
M-13	11/02/2010	Storage	<0.001	<0.001	0.06	0.002	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	0.002	0.016
M-13	12/09/2010	Storage	<0.001	<0.001	0.06	0.003	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	0.002	0.016
M-13	12/30/2010	Storage	<0.001	<0.001	0.07	0.003	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	0.002	0.014
M-13	04/21/2011	Storage	<0.001	<0.001	0.08	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.002	0.013

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-13	05/18/2011	Storage	11	<0.1	74500	45100	<2	12100	5820	67500	2	1.3	<0.1	<0.5	4.6	60	0.049	2.6	10.7	405	<0.01
M-13	06/13/2011	Storage	14	<0.1	71600	44200	3	15700	7200	66900	3	1.6	<0.1	<0.5	1.9	50	0.006	0.7	0.6	19.1	<0.01
M-14	05/09/2008	Storage	11	<1	73200	23800	22	3900	8580	55900	<10	<1	5.3	<5	7.3	<100	0.123	<3	<2	<5	<0.1
M-14	07/11/2008	Injection	<10	<1	105000	42000	<20	6800	6250	88900	<10	1.4	<1	<5	5.7	210	<0.05	<3	<2	20.9	<0.1
M-14	08/08/2008	Injection	<10	<1	63300	14100	62	2500	7720	37900	<10	1	7.7	<5	6.1	<100	0.169	<3	<2	6.5	<0.1
M-14	09/11/2008	Injection	<10	<1	55000	11500	76	3500	6780	31700	<10	1.3	5.1	<5	17.9	<100	0.176	<3	2.8	29.6	<0.1
M-14	10/17/2008	Injection	<10	<1	59200	10200	58	3400	6590	30800	<10	1	3.7	<5	5.7	<100	0.117	<3	<2	<5	<0.1
M-14	11/19/2008	Injection	<10	<1	79000	14200	40	3600	7320	38900	<10	1.1	3.5	<5	5.1	<100	0.101	<3	<2	5.8	<0.1
M-14	01/02/2009	Recovery	<10	<1	67300	21000	27	4600	6430	53300	<10	1.3	2.5	<5	33.5	<100	0.274	<3	<2	15.8	<0.1
M-14	02/04/2009	Recovery	<10	<1	76400	29800	21	6500	6640	65900	<10	1.7	1.6	<5	13.3	<100	0.137	<3	<2	12.5	<0.1
M-14	02/26/2009	Recovery	<10	<1	108000	40800	<20	7100	6150	86600	<10	1.5	<1	<5	8.1	290	0.084	3	<2	20.3	<0.1
M-14	03/26/2009	Recovery	<10	<1	107000	41300	32	7600	6300	87700	<10	1.9	<1	<5	6	210	<0.05	<3	<2	5.7	<0.1
M-14	06/19/2009	Storage	10	<1	139000	51000	<20	8800	6020	105000	<10	2.2	<1	<5	3.5	120	<0.05	<3	<2	<5	<0.1
M-14	07/27/2009	Injection	7	<0.1	86500	27800	31	4400	7070	63400	2	0.9	1.8	<0.5	2.2	120	<0.005	1.1	0.6	12.7	0.02
M-14	08/27/2009	Injection	5	<0.1	52000	14600	296	4300	6350	37000	2	1.9	2.2	0.7	3.7	70	0.024	1.1	1.1	6.3	0.07
M-14	09/18/2009	Storage	4	<0.1	47600	12600	54	3500	6000	30300	1	0.7	1.3	<0.5	6.9	20	0.015	0.7	1	6.8	0.02
M-14	10/30/2009	Storage	4	<0.1	50300	16000	42	3900	6240	38200	1	0.8	0.9	<0.5	17.2	100	0.046	1.6	<0.2	4.9	0.02
M-14	11/24/2009	Storage	4	<0.1	57900	19000	76	3600	6020	45900	1	0.7	0.8	<0.5	17.5	50	<0.005	1.8	<0.2	14	0.02
M-14	12/11/2009	Storage	4	<0.1	59700	18500	20	3700	6180	46200	1	0.7	0.7	<0.5	22.1	60	<0.005	1.9	<0.2	3.5	0.02
M-14	07/28/2010	Injection	6	<0.1	96000	34000	12	6100	7760	71600	1	0.7	<0.1	<0.5	5.2	260	0.033	0.4	<0.2	0.8	0.01
M-14	08/18/2010	Injection	3	<0.1	49500	14800	49	1400	7970	31700	<1	0.3	1.1	<0.5	1.2	20	0.03	0.5	4	1.5	0.01
M-14	09/01/2010	Injection	3	<0.1	47900	12700	49	1800	6880	30100	<1	0.4	1.3	<0.5	1.4	10	0.033	0.8	3.8	0.9	0.01
M-14	09/22/2010	Injection	3	<0.1	47500	11900	33	1700	6500	29300	<1	0.5	1.3	<0.5	1.6	20	0.036	0.7	3.4	1	0.02
M-14	10/06/2010	Storage	2	<0.1	49200	10900	22	1300	5140	35800	<1	0.2	0.6	<0.5	4	10	0.025	0.8	4	1.2	0.01
M-14	11/17/2010	Storage	3	<0.1	48600	18400	40	2100	8510	35700	<1	0.2	1	<0.5	10.9	30	0.106	0.8	3.3	1.7	0.02
M-14	12/30/2010	Storage	4	<0.1	54800	20100	41	2600	9160	42700	<1	0.3	0.4	<0.5	23.8	110	0.097	1.9	0.6	1.9	0.01
M-14	01/13/2011	Recovery	3	<0.1	55700	18100	22	2400	6510	45800	1	0.6	0.7	0.6	19.6	110	0.084	3.5	249	19.5	0.02
M-14	02/02/2011	Recovery	4	<0.1	55500	16400	18	2500	5900	44200	1	0.6	0.5	0.8	10.8	50	0.041	1.5	<0.2	<0.5	0.02
M-14	04/21/2011	Storage	5	<0.1	87600	32100	10	5900	5950	69000	2	1.4	0.6	1.1	3.2	220	0.027	0.8	29.3	2.8	0.03
M-14	06/13/2011	Storage	5	<0.1	86300	32200	13	5300	5200	68000	2	1.1	0.5	1	3.2	280	0.027	0.4	<0.2	1.7	0.03
M-17	05/09/2008	Storage	11	<1	70200	31900	<20	7200	5050	62800	<10	1.8	<1	<5	<1	<100	<0.05	<3	<2	9.4	<0.1
M-17	02/26/2009	Recovery	10	<1	71300	30600	<20	7500	5790	60300	<10	1.4	<1	<5	<1	<100	<0.05	<3	9.3	106	<0.1
M-17	06/15/2009	Storage	12	<1	82900	39700	<20	9200	5300	72600	<10	2.1	<1	<5	<1	<100	<0.05	<3	<2	5.5	<0.1

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-13	05/18/2011	Storage	0.15	<0.03	<0.2	429	2.97	10900	0.034	<0.01	<0.005	1.3	0.02	<0.01	<0.2	0.18	<0.001	<0.1	<0.01	0.2	22
M-13	06/13/2011	Storage	0.22	0.04	<0.2	507	3.58	10800	0.045	<0.01	<0.005	1.3	0.07	<0.01	<0.2	<0.01	<0.001	<0.1	0.01	<0.1	24
M-14	05/09/2008	Storage	<0.1	2.26	<2	215	14.4	4550	<0.03	<0.1	<0.05	29.7	<0.1	<0.1	<2	0.13	<0.01	<1	0.99	<1	23
M-14	07/11/2008	Injection	<0.1	20.9	<2	714	6.46	5050	0.052	<0.1	<0.05	31	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	18
M-14	08/08/2008	Injection	<0.1	<0.3	<2	142	11.4	1860	0.058	<0.1	<0.05	5.1	<0.1	<0.1	<2	<0.1	<0.01	<1	0.43	<1	12
M-14	09/11/2008	Injection	<0.1	0.69	<2	128	6.83	1650	0.039	<0.1	<0.05	3.7	<0.1	<0.1	<2	<0.1	<0.01	<1	0.31	<1	13
M-14	10/17/2008	Injection	<0.1	0.34	<2	131	7.01	1130	0.034	<0.1	<0.05	2	<0.1	<0.1	<2	<0.1	<0.01	<1	0.29	<1	13
M-14	11/19/2008	Injection	<0.1	0.45	<2	216	9.91	1760	0.033	<0.1	<0.05	4.1	<0.1	<0.1	<2	<0.1	<0.01	<1	0.36	<1	14
M-14	01/02/2009	Recovery	<0.1	5.74	<2	262	6.89	5110	0.037	<0.1	<0.05	36.7	<0.1	<0.1	<2	0.16	<0.01	<1	0.51	<1	28
M-14	02/04/2009	Recovery	<0.1	9.54	<2	378	6.88	5140	0.045	0.1	<0.05	28.3	<0.1	<0.1	<2	<0.1	<0.01	<1	0.26	<1	29
M-14	02/26/2009	Recovery	<0.1	9.57	<2	741	5.87	5040	0.063	<0.1	<0.05	26.7	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	38
M-14	03/26/2009	Recovery	<0.1	8.85	<2	704	5.94	5050	0.153	0.11	<0.05	26.1	<0.1	<0.1	<2	<0.1	<0.01	1.8	<0.1	<1	59
M-14	06/19/2009	Storage	<0.1	1.64	<2	1020	5.1	5040	0.068	<0.1	<0.05	15.4	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	118
M-14	07/27/2009	Injection	0.06	1.21	0.2	540	7.92	8730	0.09	0.02	<0.005	8.6	<0.01	<0.01	<0.2	0.06	0.004	<0.1	0.46	<0.1	5
M-14	08/27/2009	Injection	0.03	0.56	<0.2	188	7.75	2090	0.101	0.22	<0.005	2.7	<0.01	<0.01	<0.2	0.04	0.005	<0.1	0.21	<0.1	3
M-14	09/18/2009	Storage	0.02	0.4	0.2	142	7.59	1120	0.032	0.01	<0.005	1.6	<0.01	<0.01	<0.2	0.02	0.005	<0.1	0.13	<0.1	3
M-14	10/30/2009	Storage	0.03	9.52	0.5	196	7.25	2300	0.028	0.01	<0.005	20.1	<0.01	<0.01	<0.2	0.11	0.003	<0.1	0.17	<0.1	61
M-14	11/24/2009	Storage	0.03	11.5	0.4	255	7.05	3660	0.039	0.01	<0.005	58.6	<0.01	<0.01	<0.2	0.23	0.001	<0.1	0.13	<0.1	29
M-14	12/11/2009	Storage	0.03	13	0.2	267	7.22	3900	0.038	0.01	<0.005	66.8	<0.01	<0.01	<0.2	0.27	0.001	<0.1	0.06	<0.1	55
M-14	07/28/2010	Injection	0.05	16.4	1	569	5.31	11100	0.045	<0.01	<0.005	39.8	0.04	<0.01	<0.2	0.07	<0.001	<0.1	0.02	0.1	14
M-14	08/18/2010	Injection	0.01	0.37	0.4	95	6.73	1030	0.015	<0.01	<0.005	2.8	0.01	<0.01	<0.2	0.02	0.003	<0.1	0.17	<0.1	6
M-14	09/01/2010	Injection	0.01	0.34	0.4	115	7.16	980	0.011	0.01	<0.005	2.5	0.01	<0.01	<0.2	0.02	0.004	<0.1	0.19	<0.1	3
M-14	09/22/2010	Injection	0.01	0.42	0.6	113	7.09	950	0.009	0.01	<0.005	2.6	0.01	<0.01	<0.2	0.03	0.002	<0.1	0.18	<0.1	3
M-14	10/06/2010	Storage	0.01	0.46	0.5	79	4.31	1510	0.013	<0.01	<0.005	8.4	0.02	<0.01	<0.2	<0.01	0.002	<0.1	0.2	<0.1	16
M-14	11/17/2010	Storage	<0.01	0.94	0.4	136	6.79	1550	0.012	<0.01	<0.005	13	0.01	<0.01	<0.2	0.04	0.003	<0.1	0.37	<0.1	20
M-14	12/30/2010	Storage	0.03	5.11	<0.2	207	7.01	2630	0.014	<0.01	<0.005	59	0.02	<0.01	<0.2	0.11	0.001	0.1	0.19	<0.1	31
M-14	01/13/2011	Recovery	0.02	5.84	0.7	208	6.82	3350	0.024	<0.01	<0.005	73.1	0.02	0.02	<0.2	0.29	0.002	1.8	0.22	<0.1	26
M-14	02/02/2011	Recovery	0.02	5.81	0.8	192	6.24	3160	0.022	<0.01	<0.005	79.7	0.01	0.03	<0.2	0.31	<0.001	<0.1	0.12	<0.1	23
M-14	04/21/2011	Storage	0.05	10.2	1.4	557	5.68	11100	0.063	<0.01	<0.005	61.3	0.08	0.02	<0.2	0.27	<0.001	0.7	0.03	<0.1	11
M-14	06/13/2011	Storage	0.05	10.4	1.3	485	4.95	11100	0.058	<0.01	<0.005	49.3	0.07	0.01	<0.2	0.2	<0.001	<0.1	0.02	<0.1	13
M-17	05/09/2008	Storage	<0.1	1.04	<2	339	3.25	5080	0.049	0.12	<0.05	25.6	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
M-17	02/26/2009	Recovery	0.13	0.63	<2	332	4.15	5100	0.039	0.12	<0.05	16.8	<0.1	<0.1	<2	<0.1	<0.01	<1	0.29	<1	28
M-17	06/15/2009	Storage	0.3	<0.3	<2	485	3.43	5060	0.047	0.12	<0.05	3.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	16

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-13	05/18/2011	Storage	0.02	30.1	0.003	0.004	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
M-13	06/13/2011	Storage	0.017	33.6	0.002	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-14	05/09/2008	Storage	0.312	22.5	0.016	0.015	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	07/11/2008	Injection	0.131	60	0.022	0.023	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	08/08/2008	Injection	0.225	24.6	0.109	0.129	0.01	0.033	0.011	<0.01	0.016	<0.01	0.011	<0.01	<0.01	<0.01	0.011	<0.01
M-14	09/11/2008	Injection	0.17	18.2	0.033	0.05	<0.01	0.029	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	10/17/2008	Injection	0.19	18	0.059	0.064	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.012	<0.01
M-14	11/19/2008	Injection	0.205	21.5	0.121	0.132	<0.01	0.046	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	01/02/2009	Recovery	0.123	27.7	0.236	0.245	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	02/04/2009	Recovery	0.128	33.5	0.181	0.185	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	02/26/2009	Recovery	0.119	68.5	0.409	0.396	<0.01	0.019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	03/26/2009	Recovery	0.12	65.6	0.285	0.279	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	0.018	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	06/19/2009	Storage	0.081	75.5	0.055	0.055	<0.01	0.026	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-14	07/27/2009	Injection	0.159	38.2	0.027	0.041	0.005	0.018	0.004	0.004	0.006	<0.001	0.003	0.001	0.003	<0.001	0.007	0.002
M-14	08/27/2009	Injection	0.202	15	0.109	0.173	0.026	0.1	0.018	0.005	0.022	0.002	0.014	0.003	0.009	0.002	0.015	0.003
M-14	09/18/2009	Storage	0.197	11.5	0.017	0.023	0.004	0.018	0.004	0.002	0.005	<0.001	0.003	<0.001	0.003	<0.001	0.009	0.002
M-14	10/30/2009	Storage	0.154	17	0.008	0.018	0.002	0.007	0.001	0.001	0.003	<0.001	0.002	<0.001	0.001	<0.001	0.005	0.001
M-14	11/24/2009	Storage	0.156	21.4	0.011	0.019	0.002	0.01	0.002	0.003	0.002	<0.001	0.002	<0.001	0.002	<0.001	0.003	0.001
M-14	12/11/2009	Storage	0.155	23	0.008	0.014	0.002	0.006	0.001	0.002	0.002	<0.001	0.002	<0.001	0.001	<0.001	0.003	<0.001
M-14	07/28/2010	Injection	0.089	53	0.005	0.004	<0.001	0.004	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-14	08/18/2010	Injection	0.156	10.5	0.005	0.008	<0.001	0.004	0.002	<0.001	0.005	<0.001	0.002	<0.001	<0.001	<0.001	0.004	0.001
M-14	09/01/2010	Injection	0.178	11.4	0.003	0.002	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.004	0.001
M-14	09/22/2010	Injection	0.173	11.2	0.002	0.003	<0.001	0.003	0.002	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	<0.001
M-14	10/06/2010	Storage	0.086	8.8	0.004	0.003	<0.001	0.004	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001
M-14	11/17/2010	Storage	0.152	14.5	0.003	0.003	<0.001	<0.001	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001
M-14	12/30/2010	Storage	0.163	19.6	0.004	0.006	<0.001	0.004	0.002	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	0.001	<0.001
M-14	01/13/2011	Recovery	0.148	20.9	0.011	0.018	0.002	0.008	0.002	0.002	<0.001	<0.001	0.002	<0.001	0.001	<0.001	0.002	<0.001
M-14	02/02/2011	Recovery	0.126	21	0.005	0.007	<0.001	0.005	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-14	04/21/2011	Storage	0.09	63.5	0.005	0.005	<0.001	0.002	<0.001	0.007	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
M-14	06/13/2011	Storage	0.079	61.9	0.007	0.007	0.001	0.002	0.002	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-17	05/09/2008	Storage	0.035	30.6	0.487	0.458	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-17	02/26/2009	Recovery	0.064	28	0.197	0.187	<0.01	0.019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-17	06/15/2009	Storage	0.031	32.3	0.09	0.079	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-13	05/18/2011	Storage	<0.001	<0.001	0.08	0.006	<0.002	<0.3	<0.002	<0.2	0.003	0.6	<0.3	0.001	0.013
M-13	06/13/2011	Storage	<0.001	<0.001	0.08	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	0.002	0.013
M-14	05/09/2008	Storage	<0.01	<0.01	<0.2	0.09	<0.02	<3	<0.02	<2	0.036	0.21	<3	<0.01	2.85
M-14	07/11/2008	Injection	<0.01	<0.01	<0.2	0.012	<0.02	<3	<0.02	<2	<0.01	0.1	<3	<0.01	3.37
M-14	08/08/2008	Injection	<0.01	<0.01	<0.2	0.039	<0.02	<3	<0.02	<2	0.056	<0.1	<3	<0.01	0.155
M-14	09/11/2008	Injection	<0.01	<0.01	0.22	0.018	<0.02	<3	<0.02	<2	0.042	0.2	<3	<0.01	0.407
M-14	10/17/2008	Injection	<0.01	<0.01	<0.2	0.017	<0.02	<3	<0.02	<2	0.041	0.26	<3	<0.01	0.207
M-14	11/19/2008	Injection	<0.01	<0.01	<0.2	0.032	<0.02	<3	<0.02	<2	0.051	0.31	<3	<0.01	0.379
M-14	01/02/2009	Recovery	<0.01	<0.01	<0.2	0.061	<0.02	<3	<0.02	<2	0.023	0.32	<3	<0.01	2.15
M-14	02/04/2009	Recovery	<0.01	<0.01	<0.2	0.044	<0.02	<3	<0.02	<2	<0.01	0.21	<3	<0.01	2.42
M-14	02/26/2009	Recovery	<0.01	<0.01	<0.2	0.017	<0.02	<3	<0.02	<2	<0.01	1.04	<3	<0.01	1.39
M-14	03/26/2009	Recovery	<0.01	<0.01	<0.2	0.013	<0.02	<3	<0.02	<2	<0.01	0.22	<3	0.02	1.36
M-14	06/19/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.13	<3	<0.01	0.57
M-14	07/27/2009	Injection	<0.001	<0.001	<0.02	0.028	<0.002	<0.3	<0.002	<0.2	0.06	0.21	<0.3	0.001	0.427
M-14	08/27/2009	Injection	0.008	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	0.037	0.14	<0.3	0.022	0.133
M-14	09/18/2009	Storage	<0.001	<0.001	<0.02	0.017	<0.002	<0.3	<0.002	<0.2	0.038	0.01	<0.3	0.001	0.038
M-14	10/30/2009	Storage	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	0.003	0.09	<0.3	<0.001	0.668
M-14	11/24/2009	Storage	<0.001	<0.001	<0.02	0.034	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	<0.001	1.29
M-14	12/11/2009	Storage	<0.001	<0.001	<0.02	0.035	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	1.29
M-14	07/28/2010	Injection	0.003	<0.001	<0.02	0.023	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.002	0.415
M-14	08/18/2010	Injection	<0.001	<0.001	<0.02	0.029	<0.002	<0.3	<0.002	<0.2	0.04	<0.01	<0.3	<0.001	0.034
M-14	09/01/2010	Injection	<0.001	<0.001	<0.02	0.028	<0.002	<0.3	<0.002	<0.2	0.035	<0.01	<0.3	<0.001	0.019
M-14	09/22/2010	Injection	<0.001	<0.001	<0.02	0.028	<0.002	<0.3	<0.002	<0.2	0.035	<0.01	<0.3	<0.001	0.019
M-14	10/06/2010	Storage	<0.001	<0.001	<0.02	0.039	<0.002	<0.3	<0.002	<0.2	0.026	<0.01	<0.3	<0.001	0.319
M-14	11/17/2010	Storage	<0.001	<0.001	<0.02	0.046	<0.002	<0.3	<0.002	<0.2	0.034	0.1	<0.3	<0.001	0.586
M-14	12/30/2010	Storage	<0.001	<0.001	<0.02	0.053	<0.002	<0.3	<0.002	<0.2	0.005	0.1	<0.3	0.001	0.783
M-14	01/13/2011	Recovery	<0.001	<0.001	<0.02	0.054	<0.002	<0.3	<0.002	<0.2	0.004	20	<0.3	<0.001	0.84
M-14	02/02/2011	Recovery	<0.001	<0.001	<0.02	0.093	<0.002	<0.3	<0.002	<0.2	0.004	<0.01	<0.3	<0.001	0.721
M-14	04/21/2011	Storage	<0.001	<0.001	<0.02	0.032	<0.002	<0.3	<0.002	<0.2	<0.001	2.1	<0.3	0.001	1.3
M-14	06/13/2011	Storage	<0.001	<0.001	<0.02	0.029	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	0.001	1.25
M-17	05/09/2008	Storage	<0.01	<0.01	<0.2	0.037	<0.02	<3	<0.02	<2	<0.01	2.36	<3	<0.01	0.352
M-17	02/26/2009	Recovery	<0.01	<0.01	<0.2	0.031	<0.02	<3	<0.02	<2	<0.01	1.18	<3	<0.01	0.461
M-17	06/15/2009	Storage	<0.01	<0.01	<0.2	0.01	<0.02	<3	<0.02	<2	<0.01	3.58	<3	<0.01	0.195

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-17	10/30/2009	Storage	6	<0.1	59400	22400	<2	6100	5450	46100	2	1.1	0.4	<0.5	0.1	30	<0.005	0.5	0.9	3.8	0.02
M-17	11/24/2009	Storage	6	<0.1	58100	22100	5	6000	5530	45400	2	1.1	0.3	<0.5	0.2	30	<0.005	0.6	3.6	11.3	0.03
M-17	12/11/2009	Storage	6	<0.1	57900	21500	<2	6000	5590	47300	2	1.1	0.3	<0.5	0.2	40	<0.005	0.4	<0.2	3.2	0.02
M-17	10/19/2010	Storage	6	<0.1	64600	26200	<2	5900	5410	53600	2	1.3	0.6	0.9	0.2	40	0.02	1.3	<0.2	<0.5	0.02
M-17	11/17/2010	Storage	5	<0.1	61200	23600	2	5300	5570	49500	2	1.1	0.5	0.9	0.2	50	0.022	0.4	0.3	<0.5	0.03
M-17	12/30/2010	Storage	5	<0.1	61300	22700	<2	5200	5630	47500	2	1.1	0.5	0.7	0.1	40	0.015	0.3	<0.2	<0.5	0.03
M-17	02/02/2011	Recovery	5	<0.1	62200	23900	3	5500	5560	49200	2	1.2	0.4	0.8	0.1	40	0.02	0.3	<0.2	<0.5	0.03
M-17	04/21/2011	Storage	7	<0.1	66500	26600	2	6600	5620	51200	3	1.4	0.5	1	0.2	50	0.011	0.4	3.5	0.9	0.02
M-17	05/18/2011	Storage	8	<0.1	73500	31100	<2	7800	5320	58100	3	1.7	0.4	1	0.8	40	0.022	0.6	4.2	28.2	0.01
M-17	06/13/2011	Storage	6	<0.1	75100	32600	<2	7200	4770	64000	3	1.5	0.5	1.3	0.2	50	0.025	<0.3	<0.2	<0.5	0.02
M-18	05/09/2008	Storage	14	<1	85600	46700	53	10400	6510	81100	<10	2.1	<1	<5	<1	<100	<0.05	<3	<2	6.6	<0.1
M-18	01/02/2009	Recovery	13	<1	85100	44300	189	9900	6010	76700	<10	2.1	<1	<5	<1	<100	<0.05	<3	<2	98.6	<0.1
M-18	02/26/2009	Recovery	19	<1	85500	44900	<20	9700	6030	75800	<10	2.3	<1	<5	1.1	<100	<0.05	<3	<2	72.4	<0.1
M-18	06/15/2009	Storage	24	<1	85300	46100	<20	10000	6530	82200	<10	2.1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
M-18	10/30/2009	Storage	13	<0.1	84700	40500	<2	10800	5960	68400	4	2	<0.1	<0.5	0.6	40	<0.005	<0.3	<0.2	3.7	0.01
M-18	11/24/2009	Storage	14	<0.1	86300	40700	<2	10900	6060	71100	4	2	<0.1	<0.5	1	50	<0.005	<0.3	<0.2	4.2	<0.01
M-18	12/11/2009	Storage	14	<0.1	86400	40500	<2	11300	6230	69100	4	1.9	<0.1	<0.5	0.1	40	<0.005	<0.3	<0.2	3.4	0.01
M-18	10/19/2010	Storage	9	<0.1	80500	38400	<2	8400	5330	64700	4	1.9	0.3	1.2	0.1	50	0.02	<0.3	<0.2	<0.5	0.01
M-18	11/17/2010	Storage	11	<0.1	83100	38000	<2	9600	6070	62300	4	2	0.4	1.3	0.1	50	0.019	<0.3	<0.2	<0.5	0.01
M-18	12/30/2010	Storage	10	<0.1	79800	37500	<2	8800	5480	62900	4	1.8	0.5	1.5	0.3	40	0.014	<0.3	<0.2	<0.5	<0.01
M-18	02/02/2011	Recovery	10	<0.1	78100	36900	<2	9000	5590	60800	4	2	0.5	1.4	<0.1	40	0.025	0.4	<0.2	<0.5	0.01
M-18	04/21/2011	Storage	15	<0.1	83700	41400	<2	10000	6230	71700	4	2.1	0.5	2.7	0.2	50	0.023	<0.3	<0.2	<0.5	0.01
M-18	05/18/2011	Storage	14	<0.1	87200	43000	2	9600	5980	75300	4	2.1	0.5	1.6	0.3	50	0.026	<0.3	<0.2	<0.5	<0.01
M-18	06/13/2011	Storage	10	<0.1	84600	42400	<2	8100	4990	74100	3	1.6	0.4	1.5	<0.1	50	0.02	<0.3	<0.2	<0.5	<0.01
S-10	12/04/2008	Recovery	<10	<1	75100	18300	31	3900	6580	50300	<10	1.3	4.4	<5	11.2	<100	0.107	<3	7.9	11.4	<0.1
S-10	12/19/2008	Recovery	<10	<1	76200	22000	25	4500	6350	57200	<10	1.2	3.1	<5	25.4	<100	0.401	4.2	<2	14	<0.1
S-10	01/02/2009	Recovery	<10	<1	82400	25700	40	4800	6240	62000	<10	1.2	1.7	<5	20.8	<100	0.219	<3	<2	8.2	<0.1
S-10	01/23/2009	Recovery	<10	<1	95400	33700	<20	6300	6080	76100	<10	1.6	1.8	<5	6.2	150	0.09	<3	<2	12.9	<0.1
S-10	03/12/2009	Recovery	<10	<1	113000	41700	<20	7700	5650	89700	<10	1.8	<1	<5	2.8	110	<0.05	<3	<2	5.7	<0.1
S-10	03/19/2009	Recovery	12	<1	132000	46300	<20	8400	5930	98100	<10	2	1	<5	2.5	110	0.064	<3	<2	10.8	<0.1
S-10	07/27/2009	Injection	4	<0.1	54300	16900	117	2800	8250	32200	<1	0.5	1.7	<0.5	6	<10	0.031	2.3	2.6	11.9	0.03
S-10	09/04/2009	Injection	4	<0.1	51600	14700	89	3800	7150	30900	1	0.7	1.3	<0.5	6	<10	0.015	1.5	1.9	12.4	0.02
S-10	01/12/2011	Recovery	3	<0.1	60000	20200	17	3000	8060	44200	<1	0.2	0.2	<0.5	6.4	70	0.053	2.4	1.2	18.5	0.02

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-17	10/30/2009	Storage	0.05	5.45	<0.2	271	3.86	8700	0.069	0.02	<0.005	18.7	<0.01	<0.01	<0.2	0.07	0.002	<0.1	0.03	<0.1	5
M-17	11/24/2009	Storage	0.06	5.82	0.4	274	3.93	8670	0.066	0.02	<0.005	18.9	<0.01	<0.01	<0.2	0.08	0.001	<0.1	0.08	<0.1	4
M-17	12/11/2009	Storage	0.05	6.6	<0.2	271	3.94	8590	0.066	0.04	<0.005	19	<0.01	<0.01	<0.2	0.08	0.001	<0.1	<0.01	<0.1	5
M-17	10/19/2010	Storage	0.06	2.19	1	323	3.74	9590	0.045	<0.01	<0.005	15	0.06	<0.01	<0.2	0.06	0.001	<0.1	0.22	<0.1	6
M-17	11/17/2010	Storage	0.05	3.2	0.6	277	3.77	8660	0.041	<0.01	<0.005	17.8	0.05	<0.01	<0.2	0.06	0.001	0.1	0.09	<0.1	4
M-17	12/30/2010	Storage	0.04	3.1	0.9	274	3.81	5590	0.041	<0.01	<0.005	21.6	0.06	0.01	<0.2	0.09	0.001	<0.1	0.05	<0.1	4
M-17	02/02/2011	Recovery	0.05	2.96	0.9	279	3.86	8480	0.041	<0.01	<0.005	26.3	0.05	0.01	<0.2	0.1	<0.001	<0.1	0.04	<0.1	4
M-17	04/21/2011	Storage	0.17	2.19	1	324	4.17	9000	0.04	0.01	<0.005	19.4	0.05	<0.01	<0.2	0.07	<0.001	<0.1	0.09	<0.1	5
M-17	05/18/2011	Storage	0.18	0.95	1.3	402	3.64	10500	0.05	<0.01	<0.005	11.6	0.07	0.01	<0.2	0.05	<0.001	<0.1	0.01	<0.1	5
M-17	06/13/2011	Storage	0.11	0.74	1.3	410	3.6	11100	0.057	<0.01	<0.005	7.9	0.07	<0.01	<0.2	0.03	<0.001	<0.1	0.01	<0.1	4
M-18	05/09/2008	Storage	0.29	<0.3	<2	581	3.76	5070	0.119	0.19	<0.05	7.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	16
M-18	01/02/2009	Recovery	0.26	<0.3	<2	545	3.61	5080	0.417	0.2	<0.05	12.8	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	23
M-18	02/26/2009	Recovery	0.23	<0.3	<2	551	4.31	5080	0.045	<0.1	<0.05	9.4	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	25
M-18	06/15/2009	Storage	0.27	<0.3	<2	587	5.03	5070	0.047	<0.1	<0.05	1.4	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	33
M-18	10/30/2009	Storage	0.27	0.14	0.4	620	3.92	8980	0.089	0.02	<0.005	10	<0.01	0.01	<0.2	0.04	<0.001	<0.1	<0.01	0.1	10
M-18	11/24/2009	Storage	0.25	0.12	0.3	620	4	8980	0.091	0.07	<0.005	9.2	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01	0.1	5
M-18	12/11/2009	Storage	0.27	0.09	0.7	622	4.44	8960	0.091	0.02	<0.005	10.5	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01	0.1	6
M-18	10/19/2010	Storage	0.16	0.48	1.1	459	3.25	10000	0.051	0.01	<0.005	51.7	0.07	0.01	<0.2	0.2	<0.001	<0.1	0.02	<0.1	12
M-18	11/17/2010	Storage	0.27	0.55	1.3	465	3.82	9860	0.047	<0.01	<0.005	38.1	0.06	0.01	<0.2	0.13	<0.001	<0.1	<0.01	<0.1	14
M-18	12/30/2010	Storage	0.21	0.5	1.3	414	3.36	9820	0.046	<0.01	<0.005	33.1	0.07	0.01	<0.2	0.12	<0.001	<0.1	<0.01	<0.1	13
M-18	02/02/2011	Recovery	0.23	0.56	1.3	428	3.62	9580	0.045	<0.01	<0.005	36.3	0.06	0.01	<0.2	0.14	<0.001	<0.1	<0.01	<0.1	7
M-18	04/21/2011	Storage	0.22	0.66	1.9	576	3.95	11000	0.057	<0.01	<0.005	19.8	0.08	0.01	<0.2	0.08	<0.001	<0.1	0.01	0.1	8
M-18	05/18/2011	Storage	0.21	0.69	2.1	581	3.85	11100	0.051	<0.01	<0.005	14.5	0.08	0.01	<0.2	0.05	<0.001	0.1	0.01	<0.1	7
M-18	06/13/2011	Storage	0.18	0.56	1.2	499	3.14	11000	0.047	<0.01	<0.005	10.5	0.06	0.01	<0.2	0.04	<0.001	<0.1	0.01	<0.1	7
S-10	12/04/2008	Recovery	<0.1	5.64	<2	275	7.71	4950	0.038	<0.1	<0.05	71.7	<0.1	<0.1	<2	0.25	<0.01	<1	1.68	<1	12
S-10	12/19/2008	Recovery	<0.1	15.2	2.7	344	6.78	5180	0.051	<0.1	<0.05	68	<0.1	<0.1	<2	0.21	<0.01	<1	0.83	<1	15
S-10	01/02/2009	Recovery	<0.1	17.8	<2	403	6.39	5130	0.051	<0.1	<0.05	66	<0.1	<0.1	<2	0.13	<0.01	<1	0.41	<1	15
S-10	01/23/2009	Recovery	<0.1	17.9	<2	571	6.24	5070	0.061	<0.1	<0.05	46.5	<0.1	<0.1	<2	0.15	<0.01	<1	0.26	<1	18
S-10	03/12/2009	Recovery	<0.1	14.4	<2	785	5.19	5050	0.064	<0.1	<0.05	32.5	<0.1	<0.1	<2	<0.1	<0.01	<1	0.13	<1	36
S-10	03/19/2009	Recovery	0.16	15.4	<2	926	4.95	5040	0.064	<0.1	<0.05	27.9	<0.1	<0.1	<2	0.14	<0.01	<1	0.14	<1	49
S-10	07/27/2009	Injection	0.03	0.5	<0.2	143	7.51	1980	0.027	0.01	<0.005	3.3	<0.01	<0.01	<0.2	0.04	0.006	<0.1	0.2	<0.1	4
S-10	09/04/2009	Injection	0.03	0.38	<0.2	124	7.07	1130	0.026	0.01	<0.005	1.7	<0.01	<0.01	<0.2	0.03	0.005	<0.1	0.18	<0.1	3
S-10	01/12/2011	Recovery	0.03	11	<0.2	240	6.11	4660	0.02	<0.01	<0.005	126	0.04	<0.01	<0.2	0.16	<0.001	0.1	0.35	<0.1	10

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-17	10/30/2009	Storage	0.013	24	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
M-17	11/24/2009	Storage	0.013	23.9	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
M-17	12/11/2009	Storage	0.013	23.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
M-17	10/19/2010	Storage	0.016	25.8	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-17	11/17/2010	Storage	0.014	23.9	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-17	12/30/2010	Storage	0.015	23.4	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-17	02/02/2011	Recovery	0.017	24.2	0.001	0.002	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-17	04/21/2011	Storage	0.035	25.1	0.002	0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-17	05/18/2011	Storage	0.016	28.6	0.002	0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-17	06/13/2011	Storage	0.015	30.5	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	05/09/2008	Storage	0.047	32.5	0.076	0.083	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-18	01/02/2009	Recovery	0.042	32.2	0.073	0.08	<0.01	0.022	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-18	02/26/2009	Recovery	0.065	31.7	0.199	0.182	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-18	06/15/2009	Storage	0.115	38.5	0.057	0.05	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
M-18	10/30/2009	Storage	0.029	31.6	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	11/24/2009	Storage	0.034	31.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	12/11/2009	Storage	0.053	32.8	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	10/19/2010	Storage	0.017	27.8	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	11/17/2010	Storage	0.035	28.6	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	12/30/2010	Storage	0.03	28.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	02/02/2011	Recovery	0.032	28.3	0.004	0.004	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	04/21/2011	Storage	0.043	32.5	0.003	0.003	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	05/18/2011	Storage	0.047	31.2	0.002	0.003	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
M-18	06/13/2011	Storage	0.034	27.7	0.003	0.002	<0.001	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
S-10	12/04/2008	Recovery	0.157	40.7	0.743	0.703	<0.01	0.017	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-10	12/19/2008	Recovery	0.137	44.9	2.08	1.98	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-10	01/02/2009	Recovery	0.112	49.9	0.082	0.079	<0.01	0.029	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-10	01/23/2009	Recovery	0.121	56.3	0.214	0.22	<0.01	0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-10	03/12/2009	Recovery	0.091	59.8	0.721	0.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-10	03/19/2009	Recovery	0.073	65.5	0.237	0.221	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-10	07/27/2009	Injection	0.228	13.9	0.01	0.012	0.002	0.007	0.003	0.001	0.003	<0.001	0.002	<0.001	0.002	<0.001	0.009	0.002
S-10	09/04/2009	Injection	0.218	11.1	0.011	0.015	0.002	0.009	0.001	0.002	0.003	<0.001	0.002	<0.001	0.003	<0.001	0.008	0.002
S-10	01/12/2011	Recovery	0.11	39.1	0.005	0.008	<0.001	<0.001	0.002	<0.001	0.002	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
M-17	10/30/2009	Storage	<0.001	<0.001	<0.02	0.033	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.474
M-17	11/24/2009	Storage	<0.001	<0.001	<0.02	0.032	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.419
M-17	12/11/2009	Storage	<0.001	<0.001	<0.02	0.034	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.312
M-17	10/19/2010	Storage	<0.001	<0.001	<0.02	0.031	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.001	0.558
M-17	11/17/2010	Storage	<0.001	<0.001	<0.02	0.038	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	<0.001	0.506
M-17	12/30/2010	Storage	<0.001	<0.001	<0.02	0.038	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.305
M-17	02/02/2011	Recovery	<0.001	<0.001	0.02	0.039	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.18
M-17	04/21/2011	Storage	<0.001	<0.001	0.02	0.032	<0.002	<0.3	<0.002	<0.2	<0.001	0.2	<0.3	<0.001	0.289
M-17	05/18/2011	Storage	<0.001	<0.001	0.02	0.026	<0.002	<0.3	0.002	<0.2	<0.001	0.3	<0.3	<0.001	0.258
M-17	06/13/2011	Storage	<0.001	<0.001	<0.02	0.026	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.271
M-18	05/09/2008	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.28	<3	<0.01	0.011
M-18	01/02/2009	Recovery	0.01	<0.01	0.28	<0.01	<0.02	<3	<0.02	<2	<0.01	0.3	<3	0.013	0.016
M-18	02/26/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.25	<3	<0.01	0.011
M-18	06/15/2009	Storage	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.13	<3	<0.01	0.014
M-18	10/30/2009	Storage	<0.001	<0.001	0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.006
M-18	11/24/2009	Storage	<0.001	<0.001	0.03	0.011	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.008
M-18	12/11/2009	Storage	<0.001	<0.001	0.04	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.014
M-18	10/19/2010	Storage	<0.001	<0.001	0.04	0.051	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	0.008	0.008
M-18	11/17/2010	Storage	<0.001	<0.001	0.05	0.037	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.004	0.012
M-18	12/30/2010	Storage	<0.001	<0.001	0.03	0.033	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.001	0.01
M-18	02/02/2011	Recovery	<0.001	<0.001	0.02	0.026	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.009
M-18	04/21/2011	Storage	<0.001	<0.001	0.03	0.017	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	<0.001	0.009
M-18	05/18/2011	Storage	<0.001	<0.001	0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	<0.001	0.01
M-18	06/13/2011	Storage	<0.001	<0.001	0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.009
S-10	12/04/2008	Recovery	<0.01	<0.01	<0.2	0.093	<0.02	<3	<0.02	<2	0.148	0.66	<3	0.017	1.51
S-10	12/19/2008	Recovery	<0.01	<0.01	<0.2	0.081	<0.02	<3	<0.02	<2	0.087	0.37	<3	<0.01	1.79
S-10	01/02/2009	Recovery	<0.01	<0.01	<0.2	0.078	<0.02	<3	<0.02	<2	0.051	0.29	<3	<0.01	1.72
S-10	01/23/2009	Recovery	<0.01	<0.01	<0.2	0.044	<0.02	<3	<0.02	<2	0.056	0.26	<3	<0.01	3.04
S-10	03/12/2009	Recovery	<0.01	<0.01	<0.2	0.03	<0.02	<3	<0.02	<2	0.055	0.17	<3	<0.01	3.91
S-10	03/19/2009	Recovery	<0.01	<0.01	<0.2	0.027	<0.02	<3	<0.02	<2	0.042	0.2	<3	<0.01	3.98
S-10	07/27/2009	Injection	0.001	<0.001	<0.02	0.018	<0.002	<0.3	<0.002	<0.2	0.033	1.01	<0.3	<0.001	0.023
S-10	09/04/2009	Injection	0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	0.036	0.62	<0.3	<0.001	0.023
S-10	01/12/2011	Recovery	<0.001	<0.001	<0.02	0.135	<0.002	<0.3	<0.002	<0.2	0.008	0.2	<0.3	0.003	0.875

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
S-10	01/20/2011	Recovery	4	<0.1	63500	20200	22	3300	8460	47100	<1	0.6	0.7	1.8	6.8	810	0.09	2.2	5.5	4.8	0.04
S-10	02/11/2011	Recovery	5	<0.1	75100	22900	45	4600	8770	54200	<1	0.5	4.8	<0.5	11.9	2300	0.343	7.8	17.1	12.2	0.06
S-10	02/25/2011	Recovery	6	<0.1	88600	25700	13	4600	8730	59100	<1	0.5	0.3	<0.5	3.2	170	0.049	1.2	7.8	8.9	0.04
S-10	03/11/2011	Recovery	7	<0.1	107000	29300	12	5300	9510	65500	1	0.7	0.2	<0.5	2.9	240	0.061	1.2	4.8	6.6	0.04
S-14	07/27/2009	Injection	3	<0.1	54500	14800	109	2600	7650	33800	<1	0.5	1.6	<0.5	7.7	20	0.266	26.2	23.7	210	0.03
S-14	09/04/2009	Injection	3	<0.1	51300	13600	86	3600	6800	30300	1	0.7	1.3	<0.5	6.2	<10	0.055	2.8	4.8	23.4	0.02
S-17	05/30/2008	Recovery	11	<1	91800	37600	<20	7500	5340	81400	<10	1.6	3.2	<5	1.5	<100	0.266	7.1	6.8	9.3	<0.1
S-17	12/04/2008	Recovery	<10	<1	72700	16900	52	4200	6790	51700	<10	1.2	11.2	<5	8.7	<100	0.223	4.2	4.4	16	<0.1
S-17	12/19/2008	Recovery	<10	<1	76900	24300	35	5100	6260	61800	<10	1.1	9.4	<5	12.8	<100	0.422	8.3	36.3	13.7	<0.1
S-17	01/02/2009	Recovery	<10	<1	81600	28200	26	5700	6090	66300	<10	<1	6.3	<5	15.2	<100	0.509	9.6	5.3	23.7	<0.1
S-17	01/23/2009	Recovery	<10	<1	88800	35700	54	7400	5440	76500	<10	1.3	2	<5	4.3	<100	0.202	4.2	2.5	11.8	<0.1
S-17	02/05/2009	Recovery	<10	<1	95600	37300	<20	7400	5330	79800	<10	1.3	1.5	<5	3.9	<100	0.169	3.6	3.4	9.4	<0.1
S-17	03/12/2009	Recovery	<10	<1	102000	41900	<20	8400	5310	88800	<10	1.3	<1	<5	2.1	<100	0.121	3.2	2.3	8.4	<0.1
S-17	03/27/2009	Recovery	<10	<1	124000	46700	<20	8900	5540	94400	<10	1.9	<1	<5	1.4	<100	0.054	<3	<2	12.7	<0.1
S-17	07/30/2009	Injection	4	<0.1	54700	15200	107	2900	7820	32200	<1	0.5	1.7	<0.5	6.2	<10	0.053	7.3	10.8	38.9	0.03
S-17	09/04/2009	Injection	3	<0.1	52700	13700	87	3700	6840	30900	1	0.7	1.3	<0.5	5.9	<10	0.011	1.3	3.3	20.8	0.02
S-17	01/12/2011	Recovery	4	<0.1	57200	20100	18	2800	8600	44800	<1	0.3	0.9	<0.5	4.1	70	0.074	3	18.3	7.8	0.04
S-17	01/20/2011	Recovery	5	<0.1	60200	20500	16	3300	8580	47400	<1	0.5	2.1	<0.5	3.8	70	0.134	2.9	9.5	7.1	0.06
S-17	02/11/2011	Recovery	6	<0.1	70200	22100	11	4500	8740	53000	<1	0.6	4.5	<0.5	3	90	0.184	4.3	9.8	14	0.08
S-17	02/25/2011	Recovery	6	<0.1	81800	25700	9	5300	8770	59200	1	0.5	4.4	<0.5	2.7	120	0.25	5.3	18.5	9.2	0.07
S-17	03/11/2011	Recovery	7	<0.1	98000	29600	7	5900	8890	64400	1	0.7	3.5	<0.5	2.8	160	0.305	7	59.5	14	0.07
S-17	03/28/2011	Recovery	9	<0.1	112000	34100	8	7400	9550	71700	2	0.8	2.8	<0.5	2.4	190	0.369	8.3	38.6	16.3	0.07
S-20	05/30/2008	Recovery	11	<1	104000	38500	<20	6900	6590	84500	<10	1.4	1.9	<5	3.3	180	<0.05	3	<2	7.6	<0.1
S-20	12/04/2008	Recovery	<10	<1	76200	20600	30	4200	6620	52900	<10	1.1	2.6	<5	17.6	<100	0.088	<3	<2	7.7	<0.1
S-20	12/19/2008	Recovery	<10	<1	87100	28500	23	5600	6780	67500	<10	1.2	1.5	<5	22.3	140	0.259	5.5	73.1	16.7	<0.1
S-20	01/02/2009	Recovery	<10	<1	90200	30400	<20	5600	6360	70100	<10	1.4	<1	<5	12.2	140	0.094	3.4	<2	10.1	<0.1
S-20	01/23/2009	Recovery	<10	<1	106000	39100	42	7000	6150	85100	<10	1	<1	<5	5.1	180	0.07	<3	<2	62.6	<0.1
S-20	03/12/2009	Recovery	<10	<1	113000	43200	<20	8000	5800	91600	<10	1.4	<1	<5	2.3	110	<0.05	<3	<2	<5	<0.1
S-20	03/27/2009	Recovery	<10	<1	124000	46900	<20	8600	5750	100000	<10	1.8	<1	<5	1.7	<100	<0.05	<3	<2	6.2	<0.1
S-20	07/27/2009	Injection	3	<0.1	55000	16100	112	2800	8370	32600	<1	0.5	1.6	<0.5	5.9	<10	0.03	1.3	2.9	8.7	0.03
S-20	09/04/2009	Injection	3	<0.1	53000	15000	87	3900	7010	30000	<1	0.7	1.3	<0.5	5.8	<10	0.014	1.9	2.6	12.2	0.02
S-20	01/12/2011	Recovery	6	<0.1	64600	22000	14	4000	8710	50300	<1	0.7	<0.1	<0.5	6	140	0.021	1.3	2.7	3.5	0.02
S-20	01/20/2011	Recovery	6	<0.1	69400	24000	12	4500	8780	54300	<1	0.6	<0.1	<0.5	4.7	150	0.039	1.8	2.3	3	0.05

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
S-10	01/20/2011	Recovery	0.03	13.3	<0.2	260	6.24	5560	0.025	0.01	<0.005	131	0.02	<0.01	<0.2	0.22	0.001	0.2	0.54	<0.1	7
S-10	02/11/2011	Recovery	0.03	16.9	0.6	407	6.46	7520	0.053	0.01	<0.005	152	0.02	<0.01	<0.2	0.33	0.001	0.1	1.1	<0.1	9
S-10	02/25/2011	Recovery	0.02	12.2	<0.2	515	6.49	8730	0.032	<0.01	<0.005	152	0.02	<0.01	<0.2	0.2	<0.001	0.3	0.67	<0.1	9
S-10	03/11/2011	Recovery	0.05	12.1	<0.2	689	6.72	10000	0.034	<0.01	<0.005	153	0.04	<0.01	<0.2	0.23	<0.001	0.2	0.62	<0.1	11
S-14	07/27/2009	Injection	0.03	0.83	<0.2	152	7.58	2040	0.033	0.01	<0.005	3.4	<0.01	<0.01	<0.2	0.53	0.005	<0.1	0.22	<0.1	5
S-14	09/04/2009	Injection	0.03	0.39	<0.2	132	6.95	1120	0.024	0.01	<0.005	1.7	<0.01	<0.01	<0.2	0.06	0.005	0.1	0.18	<0.1	5
S-17	05/30/2008	Recovery	<0.1	44.9	<2	588	5.71	5050	0.046	<0.1	<0.05	148	<0.1	<0.1	<2	0.35	<0.01	<1	0.76	<1	11
S-17	12/04/2008	Recovery	<0.1	4.49	<2	256	8.24	3760	<0.03	<0.1	<0.05	289	<0.1	<0.1	<2	0.84	<0.01	<1	7.25	<1	14
S-17	12/19/2008	Recovery	<0.1	29.9	<2	364	7.31	5160	0.041	<0.1	<0.05	245	<0.1	<0.1	<2	0.8	<0.01	<1	3.54	<1	15
S-17	01/02/2009	Recovery	<0.1	39	<2	414	6.54	5110	0.044	<0.1	<0.05	203	<0.1	<0.1	<2	0.57	<0.01	<1	1.71	<1	14
S-17	01/23/2009	Recovery	<0.1	31.2	<2	540	4.67	5060	0.057	<0.1	<0.05	89	<0.1	<0.1	<2	0.22	<0.01	<1	0.37	<1	21
S-17	02/05/2009	Recovery	<0.1	25.5	<2	582	4.62	5050	0.051	<0.1	<0.05	71.8	<0.1	<0.1	<2	0.19	<0.01	<1	0.19	<1	11
S-17	03/12/2009	Recovery	<0.1	18.1	<2	660	4.35	5050	0.063	<0.1	<0.05	61	<0.1	<0.1	<2	0.16	<0.01	<1	0.13	<1	44
S-17	03/27/2009	Recovery	<0.1	12.8	<2	814	4.23	5040	0.062	<0.1	<0.05	52.4	<0.1	<0.1	<2	0.14	<0.01	<1	<0.1	<1	12
S-17	07/30/2009	Injection	0.03	0.53	<0.2	151	7.36	1890	0.024	0.01	<0.005	3	<0.01	<0.01	<0.2	0.05	0.005	<0.1	0.2	<0.1	5
S-17	09/04/2009	Injection	0.02	0.41	<0.2	133	7.03	1150	0.021	0.01	<0.005	1.7	<0.01	<0.01	<0.2	0.06	0.005	<0.1	0.18	<0.1	4
S-17	01/12/2011	Recovery	0.02	7.28	0.3	208	6.6	2710	0.009	0.01	<0.005	279	0.01	<0.01	<0.2	0.38	0.001	0.5	2.8	0.1	8
S-17	01/20/2011	Recovery	0.01	10.8	1.3	236	6.86	3580	0.011	0.01	<0.005	273	<0.01	<0.01	<0.2	0.36	0.001	0.4	3.34	<0.1	7
S-17	02/11/2011	Recovery	0.02	20	<0.2	358	6.84	6590	0.024	0.01	<0.005	279	0.02	<0.01	<0.2	0.45	<0.001	0.4	3.62	<0.1	9
S-17	02/25/2011	Recovery	0.03	25.5	<0.2	464	6.52	8530	0.032	<0.01	<0.005	248	0.03	<0.01	<0.2	0.33	0.001	0.8	3.61	<0.1	11
S-17	03/11/2011	Recovery	0.06	29.6	<0.2	605	6.41	10100	0.033	<0.01	<0.005	222	0.02	<0.01	<0.2	0.32	<0.001	2.6	2.96	<0.1	12
S-17	03/28/2011	Recovery	0.09	43	0.9	737	6.02	11100	0.047	0.01	<0.005	168	0.05	<0.01	<0.2	0.2	<0.001	1.2	2.04	<0.1	14
S-20	05/30/2008	Recovery	<0.1	17.3	<2	620	7.78	5070	0.048	<0.1	<0.05	41.6	<0.1	<0.1	<2	0.11	<0.01	<1	0.14	<1	12
S-20	12/04/2008	Recovery	<0.1	4.61	<2	279	7.62	5120	0.047	<0.1	<0.05	65.5	<0.1	<0.1	<2	0.25	<0.01	<1	0.79	<1	11
S-20	12/19/2008	Recovery	<0.1	11.1	<2	435	7.01	5130	0.046	<0.1	<0.05	61.7	<0.1	<0.1	<2	0.19	<0.01	<1	0.61	<1	13
S-20	01/02/2009	Recovery	<0.1	10.7	2	498	6.26	5080	0.051	<0.1	<0.05	51.6	<0.1	<0.1	<2	0.14	<0.01	<1	0.25	<1	13
S-20	01/23/2009	Recovery	<0.1	9.68	<2	653	5.92	5050	0.065	<0.1	<0.05	37	<0.1	<0.1	<2	<0.1	<0.01	<1	0.11	<1	19
S-20	03/12/2009	Recovery	<0.1	7.29	<2	737	5.11	5040	0.064	<0.1	<0.05	30.1	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	40
S-20	03/27/2009	Recovery	<0.1	5.37	<2	871	4.7	5040	0.058	<0.1	<0.05	24.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	50
S-20	07/27/2009	Injection	0.03	0.46	<0.2	139	7.59	2000	0.026	0.02	<0.005	3.6	<0.01	<0.01	<0.2	0.04	0.006	<0.1	0.2	<0.1	5
S-20	09/04/2009	Injection	0.02	0.41	<0.2	120	6.99	1140	0.022	0.01	<0.005	1.7	<0.01	<0.01	<0.2	0.04	0.005	<0.1	0.18	<0.1	4
S-20	01/12/2011	Recovery	0.03	16	<0.2	304	6.22	6700	0.026	<0.01	<0.005	131	0.01	<0.01	<0.2	0.25	<0.001	<0.1	0.12	<0.1	12
S-20	01/20/2011	Recovery	0.02	17.5	<0.2	366	6.26	7890	0.029	<0.01	<0.005	122	0.03	<0.01	<0.2	0.18	<0.001	<0.1	0.2	<0.1	10

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
S-10	01/20/2011	Recovery	0.111	41.6	0.011	0.009	0.001	0.004	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001
S-10	02/11/2011	Recovery	0.106	53	0.023	0.032	0.004	0.013	0.007	<0.001	0.005	<0.001	0.002	<0.001	<0.001	<0.001	0.002	<0.001
S-10	02/25/2011	Recovery	0.108	57.5	0.002	0.003	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001
S-10	03/11/2011	Recovery	0.11	65.3	0.003	0.004	<0.001	0.009	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001
S-14	07/27/2009	Injection	0.231	14.2	0.023	0.032	0.004	0.015	0.004	0.002	0.004	<0.001	0.003	<0.001	0.003	<0.001	0.01	0.002
S-14	09/04/2009	Injection	0.217	11.5	0.008	0.011	0.002	0.01	0.002	0.002	0.003	<0.001	0.002	<0.001	0.003	<0.001	0.009	0.002
S-17	05/30/2008	Recovery	0.087	42.5	0.209	0.189	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-17	12/04/2008	Recovery	0.168	35.7	0.061	0.064	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-17	12/19/2008	Recovery	0.18	41.9	0.131	0.13	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-17	01/02/2009	Recovery	0.136	43.8	0.116	0.12	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-17	01/23/2009	Recovery	0.086	45.4	0.288	0.282	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-17	02/05/2009	Recovery	0.07	46.7	0.085	0.083	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-17	03/12/2009	Recovery	0.066	47.9	0.17	0.165	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-17	03/27/2009	Recovery	0.044	45.9	0.167	0.162	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-17	07/30/2009	Injection	0.222	13.6	0.007	0.01	0.002	0.008	0.002	0.002	0.002	<0.001	0.002	<0.001	0.003	<0.001	0.009	0.003
S-17	09/04/2009	Injection	0.221	11.6	0.006	0.008	0.002	0.008	0.002	0.001	0.002	<0.001	0.002	<0.001	0.003	<0.001	0.008	0.002
S-17	01/12/2011	Recovery	0.124	31.1	0.004	0.004	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
S-17	01/20/2011	Recovery	0.124	35.9	0.004	0.004	<0.001	0.004	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001
S-17	02/11/2011	Recovery	0.132	43.3	0.003	0.003	<0.001	0.004	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
S-17	02/25/2011	Recovery	0.127	46.9	0.004	0.002	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
S-17	03/11/2011	Recovery	0.122	51.7	0.003	0.004	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
S-17	03/28/2011	Recovery	0.101	52.2	0.005	0.005	<0.001	0.004	0.002	0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001
S-20	05/30/2008	Recovery	0.128	52.8	0.083	0.073	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-20	12/04/2008	Recovery	0.131	38.6	0.05	0.051	<0.01	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-20	12/19/2008	Recovery	0.125	52.6	1.05	0.986	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-20	01/02/2009	Recovery	0.105	55.3	0.199	0.204	<0.01	0.022	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-20	01/23/2009	Recovery	0.216	62.1	1.42	1.37	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-20	03/12/2009	Recovery	0.071	62.2	0.046	0.052	<0.01	0.023	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-20	03/27/2009	Recovery	0.055	67.2	0.439	0.414	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
S-20	07/27/2009	Injection	0.233	14.1	0.009	0.012	0.002	0.006	0.001	0.002	0.003	<0.001	0.002	<0.001	0.002	<0.001	0.009	0.002
S-20	09/04/2009	Injection	0.222	11.4	0.006	0.007	0.001	0.007	0.001	0.001	0.002	<0.001	0.002	<0.001	0.002	<0.001	0.009	0.002
S-20	01/12/2011	Recovery	0.102	41.2	0.003	0.006	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
S-20	01/20/2011	Recovery	0.096	48	0.004	0.005	0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
S-10	01/20/2011	Recovery	<0.001	<0.001	<0.02	0.149	<0.002	<0.3	0.003	<0.2	0.014	0.3	<0.3	0.004	1.02
S-10	02/11/2011	Recovery	<0.001	<0.001	<0.02	0.147	<0.002	<0.3	<0.002	<0.2	0.781	1.2	<0.3	0.005	2.33
S-10	02/25/2011	Recovery	<0.001	<0.001	<0.02	0.153	<0.002	<0.3	0.002	<0.2	0.011	0.4	<0.3	0.002	1.05
S-10	03/11/2011	Recovery	<0.001	<0.001	<0.02	0.138	<0.002	<0.3	<0.002	<0.2	0.009	0.8	<0.3	0.002	1.17
S-14	07/27/2009	Injection	<0.001	<0.001	<0.02	0.019	<0.002	<0.3	<0.002	<0.2	0.043	4.61	<0.3	<0.001	0.054
S-14	09/04/2009	Injection	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	0.046	2.86	<0.3	<0.001	0.023
S-17	05/30/2008	Recovery	<0.01	<0.01	<0.2	0.191	<0.02	<3	<0.02	<2	0.059	0.45	<3	<0.01	6.88
S-17	12/04/2008	Recovery	<0.01	<0.01	<0.2	0.381	<0.02	<3	<0.02	<2	0.501	0.41	<3	<0.01	3.02
S-17	12/19/2008	Recovery	<0.01	<0.01	<0.2	0.249	<0.02	<3	<0.02	<2	0.39	2.43	<3	<0.01	5.38
S-17	01/02/2009	Recovery	<0.01	<0.01	<0.2	0.205	<0.02	<3	<0.02	<2	0.262	0.83	<3	<0.01	5.33
S-17	01/23/2009	Recovery	<0.01	<0.01	<0.2	0.1	<0.02	<3	<0.02	<2	0.059	0.26	<3	<0.01	3.76
S-17	02/05/2009	Recovery	<0.01	<0.01	<0.2	0.069	<0.02	<3	<0.02	<2	0.047	0.71	<3	<0.01	3.27
S-17	03/12/2009	Recovery	<0.01	<0.01	<0.2	0.048	<0.02	<3	<0.02	<2	0.017	0.36	<3	<0.01	2.16
S-17	03/27/2009	Recovery	<0.01	<0.01	<0.2	0.034	<0.02	<3	0.02	<2	<0.01	0.22	<3	<0.01	1.81
S-17	07/30/2009	Injection	<0.001	<0.001	<0.02	0.019	<0.002	<0.3	<0.002	<0.2	0.035	2.59	<0.3	<0.001	0.026
S-17	09/04/2009	Injection	<0.001	<0.001	<0.02	0.019	<0.002	<0.3	<0.002	<0.2	0.038	0.85	<0.3	<0.001	0.023
S-17	01/12/2011	Recovery	<0.001	<0.001	<0.02	0.304	<0.002	<0.3	<0.002	<0.2	0.026	1.6	<0.3	<0.001	0.886
S-17	01/20/2011	Recovery	<0.001	<0.001	0.02	0.262	<0.002	<0.3	<0.002	<0.2	0.094	0.4	<0.3	0.002	1.21
S-17	02/11/2011	Recovery	<0.001	<0.001	0.02	0.23	<0.002	<0.3	0.002	<0.2	0.301	0.6	<0.3	<0.001	2.66
S-17	02/25/2011	Recovery	<0.001	<0.001	<0.02	0.198	<0.002	<0.3	<0.002	<0.2	0.279	0.7	<0.3	0.002	3.74
S-17	03/11/2011	Recovery	<0.001	<0.001	<0.02	0.171	<0.002	<0.3	<0.002	<0.2	0.22	2.7	<0.3	0.002	3.9
S-17	03/28/2011	Recovery	<0.001	<0.001	0.02	0.121	<0.002	<0.3	<0.002	<0.2	0.146	2	<0.3	0.002	4.48
S-20	05/30/2008	Recovery	<0.01	<0.01	<0.2	0.026	<0.02	<3	<0.02	<2	0.018	0.18	<3	<0.01	3.58
S-20	12/04/2008	Recovery	<0.01	<0.01	<0.2	0.035	<0.02	<3	<0.02	<2	0.039	0.27	<3	<0.01	1.51
S-20	12/19/2008	Recovery	<0.01	<0.01	<0.2	0.039	<0.02	<3	<0.02	<2	0.029	4.78	<3	<0.01	2.01
S-20	01/02/2009	Recovery	<0.01	<0.01	<0.2	0.03	<0.02	<3	<0.02	<2	<0.01	0.21	<3	<0.01	1.79
S-20	01/23/2009	Recovery	<0.01	<0.01	<0.2	0.032	<0.02	<3	<0.02	<2	0.018	0.22	<3	0.02	2.3
S-20	03/12/2009	Recovery	<0.01	<0.01	<0.2	0.02	<0.02	<3	<0.02	<2	0.017	0.23	<3	<0.01	2.5
S-20	03/27/2009	Recovery	<0.01	<0.01	<0.2	0.015	<0.02	<3	<0.02	<2	0.01	<0.1	<3	<0.01	2.1
S-20	07/27/2009	Injection	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	0.034	0.5	<0.3	<0.001	0.021
S-20	09/04/2009	Injection	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	0.035	0.5	<0.3	<0.001	0.022
S-20	01/12/2011	Recovery	<0.001	<0.001	<0.02	0.057	<0.002	<0.3	0.002	<0.2	0.004	0.2	<0.3	0.002	0.98
S-20	01/20/2011	Recovery	<0.001	<0.001	<0.02	0.052	<0.002	<0.3	<0.002	<0.2	0.006	0.2	<0.3	0.001	1.2

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
S-20	02/11/2011	Recovery	7	<0.1	79000	27600	10	5700	8740	61300	1	0.7	<0.1	<0.5	3.2	210	0.038	1.7	2.4	7.4	0.03
S-20	02/25/2011	Recovery	7	<0.1	86500	30200	9	6000	8450	66000	1	0.7	<0.1	<0.5	2.8	260	0.031	1.1	2.3	7	0.03
S-20	03/11/2011	Recovery	6	<0.1	91900	31700	7	6700	7030	68600	2	1.3	0.2	<0.5	2.3	170	<0.005	1.2	4.5	9.2	0.03

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
S-20	02/11/2011	Recovery	0.04	14.6	0.3	487	6.28	9750	0.034	<0.01	<0.005	92.4	0.02	<0.01	<0.2	0.16	<0.001	<0.1	0.33	<0.1	11
S-20	02/25/2011	Recovery	0.05	11.5	0.6	511	6.02	10800	0.035	<0.01	<0.005	84.3	0.02	<0.01	<0.2	0.09	<0.001	0.1	0.34	0.1	11
S-20	03/11/2011	Recovery	0.05	9.43	<0.2	594	5.83	11100	0.064	<0.01	<0.005	74.4	0.13	0.01	<0.2	0.21	<0.001	0.1	0.26	<0.1	6

FLORIDA GEOLOGICAL SURVEY

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
S-20	02/11/2011	Recovery	0.098	58.7	0.002	0.003	<0.001	<0.001	<0.001	0.002	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001
S-20	02/25/2011	Recovery	0.082	60.5	0.002	0.003	<0.001	0.009	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
S-20	03/11/2011	Recovery	0.084	62.9	0.004	0.006	<0.001	0.006	0.002	0.003	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Peace River ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
S-20	02/11/2011	Recovery	<0.001	<0.001	<0.02	0.045	<0.002	<0.3	<0.002	<0.2	0.006	0.3	<0.3	<0.001	1.36
S-20	02/25/2011	Recovery	0.004	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	0.004	0.1	<0.3	0.001	1.38
S-20	03/11/2011	Recovery	<0.001	<0.001	<0.02	0.042	<0.002	<0.3	0.004	<0.2	0.006	0.5	<0.3	0.008	1.38

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	07/14/2009	Injection	3	<0.1	76600	12100	124	3700	8240	43700	1	1	1.2	2	36	20	0.08	1	14	11.2	<0.01
ASR	08/05/2009	Injection	2	<0.1	56300	8580	83	2900	5190	37200	<1	0.8	0.6	<0.5	25.4	20	0.023	0.5	20.9	30.2	0.02
ASR	09/02/2009	Injection	1	<0.1	46600	9600	133	3000	4920	39500	<1	0.8	0.7	<0.5	20.5	30	0.014	0.5	3.7	9.3	0.02
ASR	09/01/2010	Injection	1	<0.1	51900	8800	177	3300	5140	35700	1	1	1	<0.5	27.4	20	0.084	0.6	8.3	8.7	0.04
ASR	11/03/2010	Injection	2	<0.1	59900	16300	162	2600	7790	61700	<1	0.8	1.2	0.6	11.6	20	0.055	0.7	8.5	9.7	0.05
ASR	12/22/2010	Recovery	2	<0.1	68200	20700	222	2300	8870	74000	<1	0.8	1	<0.5	10.4	30	0.077	0.9	<0.2	1.5	0.09
ASR	01/06/2011	Storage	3	<0.1	85100	31500	51	2400	15400	85500	<1	0.9	1.4	<0.5	12.9	40	0.106	0.9	0.5	4.3	0.04
ASR-3	03/24/2010	Injection	1	<0.1	64200	12100	80	1600	7350	55800	<1	0.7	1	<0.5	18.6	20	0.007	0.7	2.7	6.5	0.04
ASR-3	04/07/2010	Injection	1	<0.1	57700	12300	94	1700	8310	48600	<1	1	1.3	<0.5	26	60	0.039	0.7	3.5	7.7	0.04
ASR-3	07/28/2010	Recovery	2	<0.1	60700	13400	56	2500	8300	66900	<1	0.9	1.1	0.5	51.9	40	0.168	1.8	1.7	6.7	0.03
ASR-3	08/04/2010	Recovery	2	<0.1	64500	14300	58	2700	8410	66900	<1	0.9	1.5	0.6	40.3	30	0.161	1.8	4.8	6.2	0.03
ASR-3	05/24/2011	Recovery	2	<0.1	60700	15600	58	3300	7260	66500	<1	1	0.3	0.6	121	150	0.211	2	4	5.8	0.03
ASR-3	06/08/2011	Recovery	2	<0.1	65600	14800	69	3500	7260	61500	1	0.9	0.9	0.8	49.1	60	0.187	1.6	3.2	3.6	0.04
ASR-3	06/04/2008	Recovery	2	<0.1	78800	14800	63	3400	7410	84000	1	1	0.3	0.7	93	120	0.14	2	0.2	1.3	<0.01
ASR-3	06/18/2008	Recovery	2	<0.1	78000	14700	66	3400	7100	73100	1	1	0.7	0.7	52	50	0.11	2	<0.2	2.6	<0.01
ASR-3	06/24/2008	Recovery	2	<0.1	82100	15100	61	3500	6960	73300	1	1	1.2	1.1	42	40	0.09	1	0.2	2.5	0.1
ASR-3	08/02/2008	Storage	2	<0.1	65600	9990	182	3100	6880	45800	1	1	3.3	1.3	19	20	0.14	1	2.3	1.5	0.1
ASR-3	09/02/2008	Injection	2	<0.1	48500	7790	106	3700	6920	32000	1	1	2.5	1.2	80	10	0.19	1	1.5	2	<0.01
ASR-3	01/22/2009	Recovery	2	<0.1	54700	9300	82	2900	5240	55700	1	1	0.8	1.1	51	20	0.13	1	0.7	1.6	<0.01
ASR-3	01/28/2009	Recovery	13	<0.1	65400	11100	76	3400	6400	58000	1	1	1.7	1	38	10	0.22	2	0.8	201	0.1
ASR-3	05/06/2009	Recovery	2	<0.1	73500	12500	60	3500	6860	58600	1	1	0.4	1.1	39	80	0.1	1	4.9	4.6	<0.01
ASR-3	05/12/2009	Recovery	2	<0.1	79600	13300	59	3500	6770	59700	1	1	0.5	0.9	31	80	0.09	1	<0.2	1.5	<0.01
ASR-3	05/20/2009	Recovery	3	<0.1	88000	15000	61	3500	6690	62500	1	<0.1	0.9	1.2	24.5	80	0.08	1	0.4	4.3	0.1
ASR-4	03/24/2010	Injection	1	<0.1	62900	12100	82	1600	7270	55500	<1	0.9	1.1	<0.5	18.4	<10	0.007	0.6	1.4	6.7	0.05
ASR-4	07/28/2010	Recovery	2	<0.1	59000	13200	61	2400	8210	67300	<1	0.8	0.9	0.7	49.7	30	0.098	1.7	1.4	8.9	0.03
ASR-4	08/04/2010	Recovery	<5	<0.5	107000	22200	115	4500	14800	66500	<5	1.5	1.1	<3	83	110	0.132	7.1	2.1	6.1	<0.05
ASR-4	05/24/2011	Recovery	2	<0.1	57400	14800	60	3200	7140	66600	<1	1	0.3	0.6	109	130	0.126	1.7	<0.2	1.9	0.03
ASR-4	06/08/2011	Recovery	2	<0.1	55100	12000	75	3100	6570	59100	<1	0.7	0.8	0.6	41	60	0.094	1.4	<0.2	1.9	0.04
ASR-4	06/04/2008	Recovery	2	<0.1	70200	14600	67	3400	7780	75400	1	1	0.6	1.3	92	80	0.1	2	3	4.3	<0.01
ASR-4	06/18/2008	Recovery	2	<0.1	66000	12900	75	3200	7000	69900	1	1	0.9	1.2	52	60	0.05	1	0.2	2	0.1
ASR-4	06/24/2008	Recovery	2	<0.1	68100	12700	66	3300	6850	70800	1	<0.1	1.3	0.8	37	50	0.05	1	<0.2	1.6	0.1
ASR-4	08/13/2008	Injection	2	<0.1	69200	10100	186	3100	7060	48000	1	1	3.3	1.2	19	<10	0.13	1	12	1.9	0.1
ASR-4	01/22/2009	Recovery	1	<0.1	50700	8420	90	2800	5350	52400	1	1	0.9	1.4	50	20	0.08	1	0.3	2.1	<0.01

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	07/14/2009	Injection	<0.01	0.75	<0.2	270	2.67	2550	0.02	<0.01	<0.005	0.6	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.1	0.1	23
ASR	08/05/2009	Injection	0.01	0.58	<0.2	275	2.04	1900	0.024	0.02	<0.005	0.3	<0.01	<0.01	<0.2	0.01	0.002	<0.1	0.05	<0.1	3
ASR	09/02/2009	Injection	0.01	0.48	<0.2	246	1.94	2130	0.027	0.02	<0.005	0.2	<0.01	<0.01	<0.2	<0.01	0.002	<0.1	0.05	<0.1	3
ASR	09/01/2010	Injection	0.03	0.63	0.9	208	1.7	1620	0.022	0.07	<0.005	0.2	<0.01	0.01	<0.2	0.01	0.002	<0.1	0.08	<0.1	11
ASR	11/03/2010	Injection	0.01	0.63	1.3	297	2.57	2670	0.019	0.01	<0.005	0.6	0.01	<0.01	<0.2	<0.01	0.004	<0.1	0.12	<0.1	9
ASR	12/22/2010	Recovery	0.01	0.91	1.9	356	2.82	4080	0.025	0.01	<0.005	23.8	0.02	<0.01	<0.2	0.06	0.004	<0.1	0.16	<0.1	14
ASR	01/06/2011	Storage	0.01	0.83	2	447	4.2	8450	0.044	0.02	<0.005	5.6	0.04	<0.01	<0.2	0.02	0.006	<0.1	0.14	<0.1	7
ASR-3	03/24/2010	Injection	0.01	0.22	<0.2	447	2.84	3160	0.036	0.05	<0.005	0.9	<0.01	<0.01	<0.2	<0.01	0.003	<0.1	0.09	<0.1	3
ASR-3	04/07/2010	Injection	0.02	0.43	0.3	430	3.1	2790	0.036	0.07	<0.005	0.5	<0.01	<0.01	<0.2	<0.01	0.004	<0.1	0.09	<0.1	4
ASR-3	07/28/2010	Recovery	0.02	5.94	1.5	280	2.5	2670	0.012	<0.01	<0.005	121	0.02	<0.01	<0.2	0.34	0.002	<0.1	0.32	<0.1	8
ASR-3	08/04/2010	Recovery	0.01	6.86	1.6	313	2.72	2730	0.013	<0.01	<0.005	215	0.02	<0.01	<0.2	0.59	0.001	0.1	0.54	<0.1	11
ASR-3	05/24/2011	Recovery	0.03	23.3	1.8	317	2.31	2750	0.013	<0.01	<0.005	149	0.01	<0.01	<0.2	0.37	0.002	0.1	0.07	<0.1	102
ASR-3	06/08/2011	Recovery	0.02	7.13	1.4	335	2.43	2590	0.012	<0.01	<0.005	321	0.02	<0.01	<0.2	0.84	0.001	0.1	0.58	<0.1	5
ASR-3	06/04/2008	Recovery	<0.01	25.7	2	370	2.11	3840	0.01	<0.01	<0.005	152	<0.01	<0.01	<0.2	0.4	<0.001	<0.1	0.2	<0.1	63
ASR-3	06/18/2008	Recovery	<0.01	13.8	2	390	2.26	3460	0.01	<0.01	<0.005	316	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	0.6	<0.1	15
ASR-3	06/24/2008	Recovery	<0.01	13.2	2	430	2.32	3600	0.01	<0.01	<0.005	326	<0.01	<0.01	<0.2	0.8	<0.001	<0.1	0.8	<0.1	12
ASR-3	08/02/2008	Storage	<0.01	0.73	1	270	2.23	2430	0.02	<0.01	<0.005	1.1	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.1	<0.1	20
ASR-3	09/02/2008	Injection	<0.01	0.86	1	180	2.43	1540	0.03	<0.01	<0.005	0.5	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.1	<0.1	20
ASR-3	01/22/2009	Recovery	<0.01	6.36	1	230	1.75	2230	0.01	<0.01	<0.005	118	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.5	<0.1	17
ASR-3	01/28/2009	Recovery	<0.01	6.34	1	280	2.33	2500	0.01	2.6	0.01	192	<0.01	<0.01	<0.2	1.5	<0.001	<0.1	0.8	<0.1	19
ASR-3	05/06/2009	Recovery	<0.01	20.7	2	400	2.33	2860	0.01	<0.01	<0.005	241	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	0.1	<0.1	20
ASR-3	05/12/2009	Recovery	<0.01	16.3	1	370	2.44	3190	0.01	<0.01	<0.005	280	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	0.3	<0.1	19
ASR-3	05/20/2009	Recovery	<0.01	19.8	1.5	425	2.43	3770	0.01	<0.01	<0.005	297	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	0.3	<0.1	17
ASR-4	03/24/2010	Injection	0.01	0.28	<0.2	455	2.75	3040	0.037	0.05	<0.005	1.1	<0.01	<0.01	<0.2	<0.01	0.003	<0.1	0.09	<0.1	3
ASR-4	07/28/2010	Recovery	0.02	5.61	2	269	2.57	2610	0.012	0.01	<0.005	262	0.01	<0.01	<0.2	0.71	0.002	<0.1	0.22	<0.1	10
ASR-4	08/04/2010	Recovery	0.05	11.9	<1	525	4.87	2780	0.032	0.05	<0.03	675	0.07	<0.05	<1	1.23	<0.005	<0.5	0.4	<0.5	98
ASR-4	05/24/2011	Recovery	0.02	12	1.7	277	2.23	2640	0.011	<0.01	<0.005	279	0.02	<0.01	<0.2	0.76	0.002	<0.1	0.05	<0.1	92
ASR-4	06/08/2011	Recovery	0.04	5.22	1.2	243	2.13	2240	0.009	<0.01	<0.005	561	0.02	<0.01	<0.2	1.5	0.002	<0.1	0.49	<0.1	5
ASR-4	06/04/2008	Recovery	<0.01	14.7	1	330	2.16	3390	0.01	<0.01	<0.005	362	<0.01	<0.01	<0.2	0.9	<0.001	<0.1	0.2	<0.1	29
ASR-4	06/18/2008	Recovery	<0.01	12.3	1	330	2.09	2900	0.01	<0.01	<0.005	564	<0.01	<0.01	<0.2	1.4	<0.001	<0.1	0.5	<0.1	12
ASR-4	06/24/2008	Recovery	<0.01	10.1	1	330	2.14	3020	0.01	<0.01	<0.005	553	<0.01	<0.01	<0.2	1.5	<0.001	<0.1	0.8	<0.1	10
ASR-4	08/13/2008	Injection	<0.01	0.63	1	270	2.15	2500	0.02	<0.01	<0.005	1.6	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	0.1	<0.1	20
ASR-4	01/22/2009	Recovery	<0.01	4.27	1	190	1.79	1990	0.01	<0.01	<0.005	249	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	0.4	<0.1	18

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	07/14/2009	Injection	0.07	26.3	0.01	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.01	<0.001
ASR	08/05/2009	Injection	0.052	24.3	0.004	0.005	<0.001	0.004	0.002	0.002	0.001	<0.001	0.001	<0.001	0.004	<0.001	0.01	0.002
ASR	09/02/2009	Injection	0.052	26.5	0.005	0.009	0.001	0.006	0.002	0.003	0.002	<0.001	0.002	<0.001	0.004	0.001	0.014	0.003
ASR	09/01/2010	Injection	0.056	25.1	0.006	0.011	0.002	0.009	0.002	<0.001	0.002	<0.001	0.002	<0.001	0.005	0.001	0.015	0.003
ASR	11/03/2010	Injection	0.064	38.9	0.004	0.004	<0.001	0.001	0.001	<0.001	0.002	<0.001	0.002	<0.001	0.007	0.002	0.029	0.006
ASR	12/22/2010	Recovery	0.055	41.9	0.002	0.002	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	0.003	<0.001	0.005	0.002	0.02	0.006
ASR	01/06/2011	Storage	0.073	56.8	0.002	0.001	<0.001	0.005	<0.001	<0.001	0.002	<0.001	0.004	0.001	0.012	0.004	0.035	0.009
ASR-3	03/24/2010	Injection	0.051	27.6	0.002	0.003	<0.001	0.004	0.002	0.004	<0.001	<0.001	0.003	0.001	0.007	0.002	0.019	0.005
ASR-3	04/07/2010	Injection	0.062	27.9	0.003	0.007	<0.001	0.004	0.002	0.003	0.002	<0.001	0.003	0.001	0.007	0.002	0.022	0.005
ASR-3	07/28/2010	Recovery	0.038	31	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.005	0.001
ASR-3	08/04/2010	Recovery	0.04	31.3	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	0.004	0.001
ASR-3	05/24/2011	Recovery	0.052	42.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.001
ASR-3	06/08/2011	Recovery	0.045	37.8	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.001
ASR-3	06/04/2008	Recovery	0.04	43.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-3	06/18/2008	Recovery	0.04	40	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-3	06/24/2008	Recovery	0.04	38.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-3	08/02/2008	Storage	0.06	26.1	0.02	0.05	<0.001	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.01	<0.001
ASR-3	09/02/2008	Injection	0.08	19.1	0.04	0.06	0.01	0.02	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.01	<0.001
ASR-3	01/22/2009	Recovery	0.03	26.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-3	01/28/2009	Recovery	0.04	28.1	0.01	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-3	05/06/2009	Recovery	0.04	31.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-3	05/12/2009	Recovery	0.04	30.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-3	05/20/2009	Recovery	0.04	30.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	03/24/2010	Injection	0.055	27.8	0.002	0.004	<0.001	0.004	<0.001	0.003	0.002	<0.001	0.002	0.001	0.007	0.002	0.02	0.004
ASR-4	07/28/2010	Recovery	0.039	30.9	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	0.002
ASR-4	08/04/2010	Recovery	0.07	57	0.01	<0.005	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.01	<0.005
ASR-4	05/24/2011	Recovery	0.048	40.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	0.002
ASR-4	06/08/2011	Recovery	0.042	34.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001
ASR-4	06/04/2008	Recovery	0.04	40	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	06/18/2008	Recovery	0.03	36.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	06/24/2008	Recovery	0.03	34.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	08/13/2008	Injection	0.06	26.3	0.03	0.05	<0.001	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.01	<0.001
ASR-4	01/22/2009	Recovery	0.03	25	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	07/14/2009	Injection	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.02
ASR	08/05/2009	Injection	<0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	0.004	0.39	<0.3	<0.001	0.021
ASR	09/02/2009	Injection	<0.001	<0.001	<0.02	0.008	<0.002	<0.3	<0.002	<0.2	0.003	0.08	<0.3	<0.001	0.024
ASR	09/01/2010	Injection	0.003	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	0.3	0.003	0.12	<0.3	0.005	0.02
ASR	11/03/2010	Injection	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	0.002	0.33	<0.3	0.003	0.034
ASR	12/22/2010	Recovery	<0.001	<0.001	<0.02	0.021	<0.002	<0.3	<0.002	<0.2	0.008	0.01	<0.3	0.002	0.129
ASR	01/06/2011	Storage	<0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	0.008	<0.01	<0.3	0.002	0.043
ASR-3	03/24/2010	Injection	0.001	<0.001	<0.02	0.017	<0.002	<0.3	<0.002	<0.2	0.005	0.08	<0.3	<0.001	0.047
ASR-3	04/07/2010	Injection	0.002	<0.001	<0.02	0.008	<0.002	<0.3	<0.002	<0.2	0.005	0.59	<0.3	0.001	0.041
ASR-3	07/28/2010	Recovery	<0.001	<0.001	<0.02	0.057	<0.002	<0.3	<0.002	<0.2	0.017	0.18	<0.3	<0.001	0.323
ASR-3	08/04/2010	Recovery	<0.001	<0.001	<0.02	0.073	<0.002	<0.3	<0.002	<0.2	0.017	0.23	<0.3	0.001	0.437
ASR-3	05/24/2011	Recovery	<0.001	<0.001	<0.02	0.077	<0.002	<0.3	<0.002	<0.2	<0.001	0.28	<0.3	0.001	0.128
ASR-3	06/08/2011	Recovery	<0.001	<0.001	<0.02	0.086	<0.002	<0.3	<0.002	<0.2	0.004	0.21	<0.3	<0.001	0.325
ASR-3	06/04/2008	Recovery	<0.001	<0.001	<0.02	0.1	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.16
ASR-3	06/18/2008	Recovery	<0.001	<0.001	<0.02	0.12	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.32
ASR-3	06/24/2008	Recovery	<0.001	<0.001	<0.02	0.12	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.43
ASR-3	08/02/2008	Storage	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.03
ASR-3	09/02/2008	Injection	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.02
ASR-3	01/22/2009	Recovery	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.26
ASR-3	01/28/2009	Recovery	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.45
ASR-3	05/06/2009	Recovery	<0.001	<0.001	<0.02	0.08	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.11
ASR-3	05/12/2009	Recovery	<0.001	<0.001	<0.02	0.08	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.16
ASR-3	05/20/2009	Recovery	<0.001	<0.001	<0.02	0.09	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.185
ASR-4	03/24/2010	Injection	0.003	<0.001	<0.02	0.018	<0.002	<0.3	<0.002	<0.2	0.004	0.03	<0.3	<0.001	0.049
ASR-4	07/28/2010	Recovery	<0.001	<0.001	<0.02	0.035	<0.002	<0.3	<0.002	<0.2	0.015	0.09	<0.3	<0.001	0.404
ASR-4	08/04/2010	Recovery	0.008	<0.005	<0.1	0.065	<0.01	<2	<0.01	<1	<0.005	0.13	<2	<0.005	0.827
ASR-4	05/24/2011	Recovery	0.002	<0.001	<0.02	0.036	<0.002	<0.3	<0.002	<0.2	0.002	<0.01	<0.3	<0.001	0.172
ASR-4	06/08/2011	Recovery	<0.001	<0.001	<0.02	0.068	<0.002	<0.3	<0.002	<0.2	0.004	0.01	<0.3	<0.001	0.304
ASR-4	06/04/2008	Recovery	<0.001	<0.001	<0.02	0.06	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.22
ASR-4	06/18/2008	Recovery	<0.001	<0.001	<0.02	0.09	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.28
ASR-4	06/24/2008	Recovery	<0.001	<0.001	<0.02	0.1	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.44
ASR-4	08/13/2008	Injection	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.03
ASR-4	01/22/2009	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.24

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-4	01/28/2009	Recovery	2	<0.1	56500	9220	75	3200	6520	52400	1	1	1.3	1.2	36	10	0.07	3	0.7	4.3	0.1
ASR-4	05/06/2009	Recovery	2	<0.1	56800	9460	65	3200	6600	52500	1	<0.1	0.4	0.7	41	50	0.07	1	0.2	2.5	<0.01
ASR-4	05/12/2009	Recovery	2	<0.1	61300	9850	63	3100	6470	54700	1	1	0.6	0.8	31	40	0.05	1	0.9	5.4	0.1
ASR-4	05/20/2009	Recovery	2	<0.1	67900	10900	61	3200	6330	57700	1	<0.1	0.7	0.6	26	70	0.04	1	0.4	2.4	0.1
IAMW-1	06/04/2008	Recovery	3	<0.1	84200	16500	70	3600	8010	81300	1	<0.1	0.8	2	96	130	0.135	2	1.1	5.2	<0.01
IAMW-1	06/18/2008	Recovery	7	<0.1	160000	37600	7	4900	7540	79500	1	<0.1	0.5	<0.5	0.4	<10	<0.005	1	1.1	4.3	0.1
IAMW-1	09/02/2008	Injection	15	<0.1	350000	82700	<2	8100	10000	122000	2	1	<0.1	<0.5	0.3	<10	<0.005	1	81	123	<0.01
IAMW-1	10/07/2008	Storage	15	<0.1	354000	83400	7	7800	9860	123000	2	1	<0.1	<0.5	0.2	<10	<0.005	1	2.2	5.4	<0.01
IAMW-1	01/22/2009	Recovery	14	<0.1	354000	82700	<2	7500	9580	122000	2	1	<0.1	<0.5	0.2	<10	<0.005	1	4.6	9.1	<0.01
IAMW-1	01/28/2009	Recovery	14	<0.1	344000	81600	<2	7500	9550	120000	2	1	<0.1	<0.5	0.2	<10	<0.005	1	2.5	7.8	<0.01
IAMW-1	02/11/2009	Storage	15	<0.1	361000	83300	<2	7900	9950	123000	2	1	<0.1	<0.5	0.2	<10	<0.005	1	2.1	2.5	<0.01
IAMW-1	03/03/2009	Storage	15	<0.1	354000	82700	<2	7900	9940	121000	2	1	<0.1	<0.5	0.2	<10	<0.005	1	3.8	4.1	<0.01
IAMW-1	04/01/2009	Storage	15	<0.1	368000	83700	<2	7800	9770	125000	2	1	<0.1	<0.5	0.3	10	<0.005	1	3.1	10	<0.01
IAMW-1	05/06/2009	Recovery	15	<0.1	355000	83100	<2	7800	9970	124000	2	1	<0.1	<0.5	0.2	<10	<0.005	1	4.5	10.2	<0.01
IAMW-1	05/12/2009	Recovery	12	<0.1	364000	85000	<2	7700	9370	124000	2	2	<0.1	<0.5	0.3	<10	<0.005	<0.3	1.8	1.4	<0.01
IAMW-1	05/20/2009	Recovery	12	<0.1	371000	84300	20	7600	9430	122000	2	2	<0.1	<0.5	0.3	<10	<0.005	<0.3	2.1	3.5	<0.01
IAMW-1	06/02/2009	Storage	13	<0.1	358000	83400	<2	7600	9530	121000	2	2	<0.1	<0.5	0.2	<10	<0.005	<0.3	1.9	1.8	<0.01
IAMW-1	07/14/2009	Injection	13	<0.1	373000	83000	<2	7700	9500	125000	2	2	<0.1	<0.5	1.2	<10	<0.005	1	4	3	<0.01
IAMW-1	08/05/2009	Injection	14	<0.1	325000	74000	<2	8600	10600	111000	3	1.7	<0.1	<0.5	0.2	40	<0.005	0.5	3.4	5.2	0.02
IAMW-1	09/02/2009	Injection	15	<0.1	327000	70400	<2	9000	11300	111000	3	1.9	<0.1	<0.5	0.2	20	<0.005	0.8	4.1	9.1	0.02
IAMW-1	10/07/2009	Storage	16	<0.1	330000	74700	<2	8900	11700	121000	4	1.9	<0.1	<0.5	0.2	20	<0.005	0.9	4.4	11.7	0.02
IAMW-1	11/04/2009	Storage	16	<0.1	333000	75200	<2	8900	11700	118000	3	1.9	<0.1	<0.5	0.3	10	<0.005	1.4	4.6	12.4	0.02
IAMW-1	12/02/2009	Storage	17	<0.1	327000	76000	<2	8800	12200	114000	4	2	<0.1	<0.5	0.4	20	<0.005	1.6	6.2	5.3	0.02
IAMW-1	01/06/2010	Storage	17	<0.1	312000	76300	3	8500	11500	117000	3	2	<0.1	<0.5	0.3	<10	<0.005	2.1	4.8	5.7	0.02
IAMW-1	02/03/2010	Storage	17	<0.1	327000	78500	3	8200	11700	120000	3	1.9	<0.1	<0.5	0.2	<10	<0.005	2.6	4.6	4.2	0.02
IAMW-1	03/03/2010	Storage	17	<0.1	326000	79200	3	8300	11500	127000	3	1.9	<0.1	<0.5	0.2	<10	<0.005	3.2	4.7	5	0.02
IAMW-1	03/24/2010	Injection	16	<0.1	328000	80600	<2	8100	11000	126000	3	1.7	<0.1	<0.5	0.2	<10	<0.005	4	4.2	3.1	0.01
IAMW-1	04/07/2010	Injection	12	<0.1	333000	78700	4	8100	10300	123000	3	1.5	<0.1	<0.5	0.2	<10	<0.005	0.3	4.3	8	0.02
IAMW-1	05/04/2010	Storage	13	<0.1	328000	80000	4	7800	10200	119000	3	1.6	<0.1	<0.5	0.2	<10	<0.005	<0.3	5.2	17.1	0.02
IAMW-1	06/02/2010	Storage	12	<0.1	342000	73300	4	7600	9540	113000	2	1.5	<0.1	<0.5	0.2	<10	<0.005	<0.3	3.8	5.5	0.02
SZMW-1	05/07/2008	Storage	7	<0.1	221000	52600	8	5800	8690	101000	2	1	<0.1	<0.5	0.3	<10	<0.005	1	3	2	<0.01
SZMW-1	06/04/2008	Recovery	2	<0.1	96900	16100	69	3600	8230	80800	1	<0.1	0.9	2.1	100	130	0.15	2	0.4	1.6	<0.01
SZMW-1	06/18/2008	Recovery	7	<0.1	228000	52300	9	5700	8520	102000	2	<0.1	<0.1	<0.5	0.4	10	<0.005	1	65	82.2	<0.01

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-4	01/28/2009	Recovery	<0.01	4.53	1	210	2.25	2100	0.01	<0.01	<0.005	363	<0.01	<0.01	<0.2	0.9	<0.001	<0.1	0.5	<0.1	21
ASR-4	05/06/2009	Recovery	<0.01	13.4	1	220	2.18	2200	0.01	<0.01	<0.005	408	<0.01	<0.01	<0.2	1.1	<0.001	<0.1	0.1	<0.1	19
ASR-4	05/12/2009	Recovery	<0.01	12.3	1	230	2.16	2320	0.01	<0.01	<0.005	456	<0.01	<0.01	<0.2	1.2	<0.001	<0.1	0.3	<0.1	16
ASR-4	05/20/2009	Recovery	<0.01	14	1	290	2.17	2670	0.01	<0.01	<0.005	452	<0.01	<0.01	<0.2	1.1	<0.001	<0.1	0.3	<0.1	14
IAMW-1	06/04/2008	Recovery	<0.01	26.7	<0.2	365	2.17	3410	0.01	<0.01	<0.005	158	<0.01	<0.01	<0.2	0.4	<0.001	<0.1	0.2	<0.1	71
IAMW-1	06/18/2008	Recovery	0.1	7.13	<0.2	870	4.12	23600	0.05	<0.01	<0.005	279	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	0.6	0.3	20
IAMW-1	09/02/2008	Injection	0.1	<0.03	<0.2	2340	5.76	33700	0.07	<0.01	<0.005	40	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.8	48
IAMW-1	10/07/2008	Storage	0.1	<0.03	<0.2	2330	5.78	33600	0.07	<0.01	<0.005	39.8	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.8	41
IAMW-1	01/22/2009	Recovery	0.1	<0.03	<0.2	2350	5.58	33300	0.07	<0.01	<0.005	42.7	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.8	63
IAMW-1	01/28/2009	Recovery	0.1	<0.03	<0.2	2360	5.55	33100	0.07	<0.01	<0.005	41.5	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.8	62
IAMW-1	02/11/2009	Storage	0.1	<0.03	<0.2	2350	5.51	33600	0.07	<0.01	<0.005	42	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.7	58
IAMW-1	03/03/2009	Storage	0.1	<0.03	<0.2	2360	5.76	33700	0.07	<0.01	<0.005	42.6	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.9	67
IAMW-1	04/01/2009	Storage	0.1	<0.03	<0.2	2350	5.6	33700	0.07	<0.01	<0.005	39	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.8	61
IAMW-1	05/06/2009	Recovery	0.1	<0.03	<0.2	2350	5.62	33400	0.07	<0.01	<0.005	38.5	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.9	44
IAMW-1	05/12/2009	Recovery	0.1	0.19	1	2350	5.75	34100	0.07	<0.01	<0.005	36.2	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.8	22
IAMW-1	05/20/2009	Recovery	0.1	0.08	<0.2	2340	5.68	34000	0.06	<0.01	<0.005	34.9	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.9	24
IAMW-1	06/02/2009	Storage	0.1	<0.03	<0.2	2400	5.66	34000	0.06	<0.01	<0.005	33.8	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.9	23
IAMW-1	07/14/2009	Injection	0.1	<0.03	<0.2	2440	5.7	33400	0.07	<0.01	<0.005	31.7	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.8	22
IAMW-1	08/05/2009	Injection	0.13	<0.03	<0.2	2200	6.71	19000	0.189	0.03	<0.005	34.5	<0.01	0.01	<0.2	0.14	<0.001	<0.1	<0.01	1	5
IAMW-1	09/02/2009	Injection	0.13	<0.03	<0.2	2300	6.99	19000	0.193	0.03	<0.005	37.7	<0.01	<0.01	<0.2	0.14	<0.001	<0.1	<0.01	0.8	5
IAMW-1	10/07/2009	Storage	0.14	<0.03	<0.2	2250	7.08	18000	0.195	0.02	<0.005	37.7	<0.01	<0.01	<0.2	0.15	<0.001	<0.1	<0.01	1	5
IAMW-1	11/04/2009	Storage	0.13	<0.03	<0.2	2310	6.94	18100	0.188	0.01	<0.005	36.2	<0.01	<0.01	<0.2	0.14	<0.001	<0.1	<0.01	0.8	5
IAMW-1	12/02/2009	Storage	0.12	<0.03	<0.2	2340	6.87	18200	0.199	0.02	<0.005	35.4	<0.01	<0.01	<0.2	0.14	<0.001	<0.1	<0.01	0.9	12
IAMW-1	01/06/2010	Storage	0.13	<0.03	<0.2	2210	6.95	18100	0.185	0.01	<0.005	33.1	<0.01	<0.01	<0.2	0.13	<0.001	<0.1	<0.01	0.9	13
IAMW-1	02/03/2010	Storage	0.14	<0.03	<0.2	2250	6.84	18100	0.184	0.02	<0.005	31.3	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	<0.01	0.8	13
IAMW-1	03/03/2010	Storage	0.13	<0.03	<0.2	2270	6.97	18100	0.194	0.01	<0.005	30.4	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	<0.01	1	8
IAMW-1	03/24/2010	Injection	0.13	<0.03	<0.2	2290	6.72	18100	0.171	0.04	0.01	32.4	0.01	0.01	<0.2	0.12	<0.001	<0.1	<0.01	0.8	5
IAMW-1	04/07/2010	Injection	0.12	<0.03	<0.2	2180	6.38	18100	0.197	0.01	<0.005	32.2	<0.01	0.01	<0.2	0.14	<0.001	<0.1	<0.01	1	5
IAMW-1	05/04/2010	Storage	0.13	<0.03	<0.2	2200	6.49	18100	0.197	0.01	<0.005	28.7	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	1	3
IAMW-1	06/02/2010	Storage	0.13	<0.03	<0.2	2160	6.33	18200	0.194	0.01	<0.005	27.2	<0.01	0.01	<0.2	0.11	<0.001	<0.1	<0.01	0.9	3
SZMW-1	05/07/2008	Storage	0.1	19.9	1.5	1420	4.18	23600	0.05	<0.01	<0.005	264	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.4	30
SZMW-1	06/04/2008	Recovery	<0.01	26.2	1	370	2.15	3410	0.01	<0.01	<0.005	158	<0.01	<0.01	<0.2	0.4	<0.001	<0.1	0.2	<0.1	63
SZMW-1	06/18/2008	Recovery	0.1	18.7	<0.2	1390	4.15	23000	0.05	<0.01	<0.005	252	<0.01	<0.01	<0.2	0.7	<0.001	1	0.1	0.5	31

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-4	01/28/2009	Recovery	0.03	25.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	05/06/2009	Recovery	0.03	26.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	05/12/2009	Recovery	0.04	27.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	05/20/2009	Recovery	0.04	27.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	06/04/2008	Recovery	0.035	42.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	06/18/2008	Recovery	0.02	35.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	09/02/2008	Injection	0.03	107	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	10/07/2008	Storage	0.03	57.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	01/22/2009	Recovery	0.03	57	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	01/28/2009	Recovery	0.03	67.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	02/11/2009	Storage	0.03	51.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	03/03/2009	Storage	0.03	54.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	04/01/2009	Storage	0.03	52.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	05/06/2009	Recovery	0.03	57.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	05/12/2009	Recovery	0.03	54.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	05/20/2009	Recovery	0.03	53.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	06/02/2009	Storage	0.03	54.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	07/14/2009	Injection	0.03	48.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	08/05/2009	Injection	0.026	48.9	0.002	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	09/02/2009	Injection	0.028	50	0.002	<0.001	<0.001	<0.001	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	10/07/2009	Storage	0.026	48.1	0.003	0.002	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	11/04/2009	Storage	0.025	44.7	0.003	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	12/02/2009	Storage	0.026	46.3	0.003	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	01/06/2010	Storage	0.025	49.1	0.003	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	02/03/2010	Storage	0.025	48.3	0.003	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	03/03/2010	Storage	0.025	49	0.003	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	03/24/2010	Injection	0.025	46.3	0.003	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	04/07/2010	Injection	0.027	51.1	0.001	<0.001	<0.001	<0.001	0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	05/04/2010	Storage	0.027	55.8	0.002	<0.001	<0.001	<0.001	<0.001	0.005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
IAMW-1	06/02/2010	Storage	0.026	45.4	0.002	<0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/07/2008	Storage	0.02	34	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/04/2008	Recovery	0.04	42.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/18/2008	Recovery	0.02	34.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-4	01/28/2009	Recovery	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.39
ASR-4	05/06/2009	Recovery	<0.001	<0.001	<0.02	0.06	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.19
ASR-4	05/12/2009	Recovery	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.19
ASR-4	05/20/2009	Recovery	<0.001	<0.001	<0.02	0.08	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.19
IAMW-1	06/04/2008	Recovery	<0.001	<0.001	<0.02	0.09	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.15
IAMW-1	06/18/2008	Recovery	<0.001	<0.001	<0.02	0.06	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	1.72
IAMW-1	09/02/2008	Injection	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	3	<0.3	<0.001	0.01
IAMW-1	10/07/2008	Storage	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	01/22/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	01/28/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	02/11/2009	Storage	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	03/03/2009	Storage	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	04/01/2009	Storage	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	05/06/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	05/12/2009	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	05/20/2009	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	06/02/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	07/14/2009	Injection	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	08/05/2009	Injection	<0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.009
IAMW-1	09/02/2009	Injection	<0.001	<0.001	<0.02	0.008	<0.002	<0.3	<0.002	<0.2	<0.001	0.07	<0.3	<0.001	0.009
IAMW-1	10/07/2009	Storage	<0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.06	<0.3	<0.001	0.01
IAMW-1	11/04/2009	Storage	<0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.08	<0.3	<0.001	0.009
IAMW-1	12/02/2009	Storage	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.01
IAMW-1	01/06/2010	Storage	<0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.01
IAMW-1	02/03/2010	Storage	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.009
IAMW-1	03/03/2010	Storage	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.01
IAMW-1	03/24/2010	Injection	<0.001	<0.001	0.02	0.006	<0.002	<0.3	0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.004
IAMW-1	04/07/2010	Injection	<0.001	<0.001	<0.02	0.005	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.009
IAMW-1	05/04/2010	Storage	<0.001	<0.001	<0.02	0.005	<0.002	<0.3	<0.002	<0.2	<0.001	0.11	<0.3	<0.001	0.011
IAMW-1	06/02/2010	Storage	<0.001	<0.001	<0.02	0.005	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.01
SZMW-1	05/07/2008	Storage	<0.001	<0.001	<0.02	0.06	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.17
SZMW-1	06/04/2008	Recovery	<0.001	<0.001	<0.02	0.09	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.15
SZMW-1	06/18/2008	Recovery	<0.001	<0.001	<0.02	0.06	<0.002	<0.3	<0.002	<0.2	<0.001	5	<0.3	<0.001	0.17

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	06/24/2008	Recovery	7	<0.1	240000	52600	8	5600	7790	101000	2	1	<0.1	<0.5	0.4	20	<0.005	<0.3	1.1	2.8	<0.01
SZMW-1	08/04/2008	Storage	8	<0.1	198000	46900	8	5700	8130	85100	2	1	<0.1	<0.5	0.3	20	<0.005	<0.3	0.7	6.6	<0.01
SZMW-1	08/13/2008	Injection	8	<0.1	239000	56300	<2	5800	8120	103000	2	1	<0.1	<0.5	0.3	20	<0.005	<0.3	4.1	5.4	<0.01
SZMW-1	09/02/2008	Injection	8	<0.1	224000	54600	<2	5900	8150	103000	2	1	<0.1	<0.5	20	460	<0.005	1	55	142	<0.01
SZMW-1	10/07/2008	Storage	8	<0.1	241000	53300	7	5600	8040	99300	2	1	<0.1	<0.5	0.3	20	<0.005	1	0.5	2.5	<0.01
SZMW-1	11/04/2008	Storage	8	<0.1	230000	52400	2	5600	8220	99500	2	1	<0.1	<0.5	0.3	10	<0.005	1	5.6	23	<0.01
SZMW-1	01/22/2009	Recovery	8	<0.1	247000	53400	<2	5800	8190	101000	2	1	<0.1	<0.5	0.3	<10	<0.005	1	7.2	4	<0.01
SZMW-1	01/28/2009	Recovery	9	<0.1	236000	54000	3	5700	8090	103000	2	1	<0.1	<0.5	0.3	10	<0.005	1	1.6	3.5	<0.01
SZMW-1	02/11/2009	Storage	9	<0.1	234000	54400	<2	5800	8360	103000	2	1	<0.1	<0.5	0.4	20	<0.005	1	<0.2	1.9	<0.01
SZMW-1	03/03/2009	Storage	8	<0.1	257000	54000	<2	5700	8280	101000	2	1	<0.1	<0.5	0.3	20	<0.005	1	1.4	1.6	<0.01
SZMW-1	04/01/2009	Storage	9	<0.1	254000	53900	<2	5900	8510	102000	2	1	<0.1	<0.5	0.4	20	<0.005	1	1.5	2.3	<0.01
SZMW-1	05/06/2009	Recovery	9	<0.1	241000	53600	2	5700	8270	102000	2	1	<0.1	<0.5	0.4	10	<0.005	1	1.7	4	<0.01
SZMW-1	05/12/2009	Recovery	9	<0.1	246000	54300	<2	5800	8150	103000	2	1	<0.1	<0.5	0.3	<10	<0.005	1	<0.2	1.6	<0.01
SZMW-1	05/20/2009	Recovery	9	<0.1	228000	53900	<2	5700	7870	102000	2	1	<0.1	<0.5	0.4	<10	<0.005	1	<0.2	3.6	<0.01
SZMW-1	06/02/2009	Storage	8	<0.1	232000	54700	<2	5600	8020	104000	2	1	<0.1	<0.5	0.4	<10	<0.005	1	0.8	6.8	<0.01
SZMW-1	07/14/2009	Injection	9	<0.1	228000	54300	<2	5400	7950	103000	1	1	<0.1	<0.5	42	130	<0.005	1	<0.2	2	<0.01
SZMW-1	08/05/2009	Injection	7	<0.1	253000	52800	<2	5800	7730	108000	2	1.2	<0.1	<0.5	0.4	<10	<0.005	0.5	3.7	13.3	0.04
SZMW-1	09/02/2009	Injection	7	<0.1	238000	48300	<2	5400	7480	103000	2	1.1	<0.1	<0.5	0.3	<10	<0.005	0.6	2	4.3	0.05
SZMW-1	10/07/2009	Storage	7	<0.1	239000	50700	<2	5300	7210	108000	2	1.1	<0.1	<0.5	0.2	<10	<0.005	0.6	2.3	8	0.05
SZMW-1	11/04/2009	Storage	7	<0.1	242000	50900	<2	5100	7030	104000	2	1	<0.1	<0.5	2	80	<0.005	0.6	2.3	7.9	0.04
SZMW-1	12/02/2009	Storage	7	<0.1	241000	51800	<2	5200	7070	105000	2	1.1	<0.1	<0.5	0.2	<10	<0.005	0.6	1.9	6.7	0.04
SZMW-1	01/06/2010	Storage	7	<0.1	239000	50400	4	5400	7340	105000	2	1.1	<0.1	<0.5	0.3	<10	<0.005	0.5	1.9	3.9	0.04
SZMW-1	02/03/2010	Storage	7	<0.1	240000	49400	4	5100	6890	103000	2	1.1	<0.1	<0.5	0.2	<10	<0.005	0.6	1.7	3.9	0.04
SZMW-1	03/03/2010	Storage	7	<0.1	201000	42100	4	5100	7070	86000	2	1	<0.1	<0.5	0.2	<10	<0.005	0.6	1.8	3.8	0.05
SZMW-1	03/24/2010	Injection	6	<0.1	211000	44200	4	5000	6840	93000	2	1.1	<0.1	<0.5	0.3	<10	<0.005	0.5	1.8	4.7	0.05
SZMW-1	04/07/2010	Injection	6	<0.1	201000	41900	4	5000	6750	85500	2	1.1	<0.1	<0.5	0.3	<10	<0.005	0.6	2.1	7.5	0.05
SZMW-1	05/04/2010	Storage	6	<0.1	222000	46200	5	5000	6830	101000	2	1.2	<0.1	<0.5	0.3	<10	<0.005	0.7	1.9	6.3	0.05
SZMW-1	06/02/2010	Storage	6	<0.1	211000	44300	4	4900	6630	91800	2	1.3	<0.1	<0.5	0.3	<10	<0.005	0.6	1.8	4.6	0.05
SZMW-1	07/14/2010	Storage	7	<0.1	26200	43100	<2	5700	8240	89200	1	1	<0.1	<0.5	0.3	<10	<0.005	0.5	1.1	1.3	0.04
SZMW-1	07/28/2010	Recovery	5	<0.1	206000	45900	5	5000	6890	94600	2	1.3	<0.1	<0.5	0.3	80	0.016	0.7	1.3	1.4	0.04
SZMW-1	08/04/2010	Recovery	6	<0.1	204000	41800	8	6000	8220	86600	2	1.6	<0.1	<0.5	0.3	90	0.026	0.4	0.2	1.6	0.02
SZMW-1	09/01/2010	Injection	6	<0.1	208000	42600	6	6100	8470	86900	2	1.4	<0.1	<0.5	0.3	110	0.033	0.6	0.5	5.7	0.03
SZMW-1	10/06/2010	Injection	6	<0.1	205000	45900	7	6200	8470	92000	2	1.6	<0.1	<0.5	0.2	100	0.037	0.6	2	2.3	0.03

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	06/24/2008	Recovery	0.1	18.3	2	1400	4.13	23500	0.05	<0.01	<0.005	252	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.5	38
SZMW-1	08/04/2008	Storage	0.1	6.11	1	1530	4.14	19900	0.05	<0.01	<0.005	240	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.5	38
SZMW-1	08/13/2008	Injection	0.1	7.81	1	1530	4.24	23900	0.05	<0.01	<0.005	247	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	<0.01	0.5	34
SZMW-1	09/02/2008	Injection	0.1	8.5	<0.2	1490	4.18	24200	0.06	<0.01	<0.005	237	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	0.1	0.5	39
SZMW-1	10/07/2008	Storage	0.1	14.1	<0.2	1450	4.1	23000	0.05	<0.01	<0.005	256	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	<0.01	0.4	50
SZMW-1	11/04/2008	Storage	0.1	13.5	<0.2	1410	4.09	23000	0.05	<0.01	<0.005	252	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	<0.01	0.5	42
SZMW-1	01/22/2009	Recovery	0.1	11.6	<0.2	1460	4.15	23500	0.05	<0.01	<0.005	251	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.6	48
SZMW-1	01/28/2009	Recovery	0.1	8.62	<0.2	1490	4.09	23800	0.05	<0.01	<0.005	243	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.6	47
SZMW-1	02/11/2009	Storage	0.1	8.68	<0.2	1500	4.19	23900	0.05	<0.01	<0.005	243	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.6	41
SZMW-1	03/03/2009	Storage	0.1	8.52	<0.2	1460	4.18	23800	0.05	<0.01	<0.005	241	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.5	51
SZMW-1	04/01/2009	Storage	0.1	8.36	<0.2	1490	4.2	23900	0.05	<0.01	<0.005	243	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.5	50
SZMW-1	05/06/2009	Recovery	0.1	8.17	<0.2	1490	4.13	23600	0.05	<0.01	<0.005	239	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.5	47
SZMW-1	05/12/2009	Recovery	0.1	8.12	<0.2	1490	4.08	23800	0.05	<0.01	<0.005	241	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.4	44
SZMW-1	05/20/2009	Recovery	0.1	8.04	<0.2	1560	4.06	23300	0.05	<0.01	<0.005	235	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.4	32
SZMW-1	06/02/2009	Storage	0.1	8.14	<0.2	1510	4.13	23500	0.05	<0.01	<0.005	237	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	<0.01	0.5	51
SZMW-1	07/14/2009	Injection	0.1	8.73	<0.2	1490	4.13	23600	0.05	<0.01	<0.005	230	<0.01	<0.01	<0.2	0.5	<0.001	<0.1	<0.01	0.5	19
SZMW-1	08/05/2009	Injection	0.1	7.19	<0.2	1870	4.69	17900	0.136	0.01	<0.005	239	<0.01	<0.01	<0.2	0.93	<0.001	<0.1	<0.01	0.5	7
SZMW-1	09/02/2009	Injection	0.09	19.4	<0.2	1740	4.56	17800	0.127	0.01	<0.005	261	<0.01	<0.01	<0.2	0.92	<0.001	<0.1	<0.01	0.5	3
SZMW-1	10/07/2009	Storage	0.08	26.4	<0.2	1680	4.57	17900	0.128	0.01	<0.005	271	<0.01	<0.01	<0.2	1.01	<0.001	<0.1	<0.01	0.4	2
SZMW-1	11/04/2009	Storage	0.09	25.8	<0.2	1650	4.59	17800	0.125	0.01	<0.005	271	<0.01	<0.01	<0.2	0.95	<0.001	<0.1	0.01	0.5	3
SZMW-1	12/02/2009	Storage	0.09	21.8	<0.2	1670	4.51	17900	0.123	0.01	<0.005	272	<0.01	<0.01	<0.2	0.95	<0.001	<0.1	0.01	0.4	8
SZMW-1	01/06/2010	Storage	0.09	21.8	<0.2	1690	4.64	17800	0.127	0.01	<0.005	277	<0.01	<0.01	<0.2	0.99	<0.001	<0.1	0.01	0.4	6
SZMW-1	02/03/2010	Storage	0.08	19.7	<0.2	1620	4.4	17900	0.121	0.01	<0.005	263	<0.01	<0.01	<0.2	0.95	<0.001	<0.1	0.01	0.4	6
SZMW-1	03/03/2010	Storage	0.08	20.5	<0.2	1650	4.4	17300	0.124	0.01	<0.005	266	<0.01	<0.01	<0.2	0.97	<0.001	<0.1	0.01	0.5	6
SZMW-1	03/24/2010	Injection	0.08	20.8	<0.2	1580	4.39	17500	0.118	0.01	<0.005	283	<0.01	<0.01	<0.2	1.04	<0.001	<0.1	0.01	0.4	6
SZMW-1	04/07/2010	Injection	0.09	28.2	<0.2	1540	4.29	17300	0.117	0.01	<0.005	310	<0.01	<0.01	<0.2	1.17	<0.001	<0.1	0.01	0.3	6
SZMW-1	05/04/2010	Storage	0.08	26.8	<0.2	1540	4.37	17700	0.12	0.01	<0.005	308	<0.01	<0.01	<0.2	1.08	<0.001	<0.1	0.01	0.4	6
SZMW-1	06/02/2010	Storage	0.08	26.2	<0.2	1540	4.29	17700	0.114	0.01	<0.005	302	<0.01	<0.01	<0.2	1.09	<0.001	<0.1	<0.01	0.4	5
SZMW-1	07/14/2010	Storage	0.08	26.4	<0.2	1600	4.65		0.058	0.01	<0.005	316	0.08	<0.01	<0.2	0.75	<0.001	<0.1	0.03	0.2	25
SZMW-1	07/28/2010	Recovery	0.07	20.1	<0.2	1160	3.35	19000	0.066	<0.01	<0.005	230	0.13	<0.01	<0.2	0.52	<0.001	<0.1	0.02	0.1	24
SZMW-1	08/04/2010	Recovery	0.09	24.2	<0.2	1410	4.15	11100	0.087	<0.01	<0.005	285	0.15	<0.01	<0.2	0.6	<0.001	<0.1	0.03	0.2	33
SZMW-1	09/01/2010	Injection	0.09	22	<0.2	1490	4.28	11100	0.089	<0.01	<0.005	274	0.14	<0.01	<0.2	0.62	<0.001	<0.1	0.03	0.1	33
SZMW-1	10/06/2010	Injection	0.07	27	<0.2	1460	4.27	19000	0.085	<0.01	<0.005	262	0.18	<0.01	<0.2	0.52	<0.001	<0.1	0.04	0.1	31

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	06/24/2008	Recovery	0.02	34.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/04/2008	Storage	0.02	35.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/13/2008	Injection	0.02	35.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/02/2008	Injection	0.02	35.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/07/2008	Storage	0.02	34.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/04/2008	Storage	0.02	34.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/22/2009	Recovery	0.02	34.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/28/2009	Recovery	0.02	35.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/11/2009	Storage	0.02	35.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/03/2009	Storage	0.02	34.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/01/2009	Storage	0.02	35.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/06/2009	Recovery	0.02	34.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/12/2009	Recovery	0.02	34.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/20/2009	Recovery	0.02	35.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/02/2009	Storage	0.02	35	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/14/2009	Injection	0.02	41.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/05/2009	Injection	0.021	32.4	0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/02/2009	Injection	0.02	31.6	0.002	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/07/2009	Storage	0.018	31.2	0.001	<0.001	<0.001	0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/04/2009	Storage	0.025	30.2	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/02/2009	Storage	0.019	30.3	0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/06/2010	Storage	0.019	31.2	0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/03/2010	Storage	0.019	30.3	0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/03/2010	Storage	0.019	30.8	<0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/24/2010	Injection	0.018	30.6	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/07/2010	Injection	0.02	30.6	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/04/2010	Storage	0.018	30.7	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/02/2010	Storage	0.018	30.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/14/2010	Storage	0.021	34.6	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/28/2010	Recovery	0.014	24.2	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/04/2010	Recovery	0.018	33.8	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/01/2010	Injection	0.021	34.5	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/06/2010	Injection	0.02	33.3	<0.001	<0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	06/24/2008	Recovery	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.17
SZMW-1	08/04/2008	Storage	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	08/13/2008	Injection	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	09/02/2008	Injection	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	3	<0.3	<0.001	0.15
SZMW-1	10/07/2008	Storage	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.12
SZMW-1	11/04/2008	Storage	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	01/22/2009	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	01/28/2009	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.13
SZMW-1	02/11/2009	Storage	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.13
SZMW-1	03/03/2009	Storage	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	04/01/2009	Storage	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	05/06/2009	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	05/12/2009	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	05/20/2009	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.13
SZMW-1	06/02/2009	Storage	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14
SZMW-1	07/14/2009	Injection	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.13
SZMW-1	08/05/2009	Injection	<0.001	<0.001	0.02	0.033	<0.002	<0.3	<0.002	<0.2	<0.001	0.15	<0.3	<0.001	0.151
SZMW-1	09/02/2009	Injection	<0.001	<0.001	0.02	0.035	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.118
SZMW-1	10/07/2009	Storage	<0.001	<0.001	0.02	0.045	<0.002	<0.3	<0.002	<0.2	<0.001	0.12	<0.3	<0.001	0.116
SZMW-1	11/04/2009	Storage	<0.001	<0.001	<0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	0.21	<0.3	<0.001	0.121
SZMW-1	12/02/2009	Storage	<0.001	<0.001	<0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.128
SZMW-1	01/06/2010	Storage	<0.001	<0.001	0.02	0.047	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.133
SZMW-1	02/03/2010	Storage	<0.001	<0.001	0.02	0.042	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.134
SZMW-1	03/03/2010	Storage	<0.001	<0.001	0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.138
SZMW-1	03/24/2010	Injection	<0.001	<0.001	0.02	0.042	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.125
SZMW-1	04/07/2010	Injection	<0.001	<0.001	0.02	0.045	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.119
SZMW-1	05/04/2010	Storage	<0.001	<0.001	0.02	0.045	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.122
SZMW-1	06/02/2010	Storage	<0.001	<0.001	0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.123
SZMW-1	07/14/2010	Storage	<0.001	<0.001	0.02	0.041	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.105
SZMW-1	07/28/2010	Recovery	<0.001	<0.001	<0.02	0.027	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.068
SZMW-1	08/04/2010	Recovery	<0.001	<0.001	0.02	0.046	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.107
SZMW-1	09/01/2010	Injection	0.002	<0.001	0.02	0.033	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.103
SZMW-1	10/06/2010	Injection	<0.001	<0.001	0.02	0.049	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.103

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	11/03/2010	Injection	5	<0.1	202000	45200	6	5000	6650	91800	2	1.2	<0.1	<0.5	0.1	70	0.018	0.4	2.5	1.9	0.02
SZMW-1	12/01/2010	Storage	6	<0.1	200000	42400	6	6200	7960	85900	2	1.1	0.1	<0.5	0.2	60	0.015	0.5	<0.2	1.6	0.04
SZMW-1	12/22/2010	Recovery	1	<0.1	201000	8730	<2	1100	1520	17400	<1	0.3	0.3	0.9	<0.1	20	<0.005	<0.3	<0.2	0.9	0.01
SZMW-1	01/06/2011	Storage	6	<0.1	202000	44900	7	6100	8020	90500	2	1.1	<0.1	<0.5	0.2	60	0.01	0.6	2.2	2.5	0.04
SZMW-1	02/02/2011	Storage	6	<0.1	202000	44300	6	6200	8200	89700	2	1.2	<0.1	<0.5	0.2	60	0.007	0.4	1.2	1.7	0.04
SZMW-1	03/02/2011	Storage	6	<0.1	201000	44400	6	6200	8180	89900	2	1.2	<0.1	<0.5	0.2	60	0.008	0.5	4.4	5.1	0.04
SZMW-1	04/06/2011	Storage	7	<0.1	204000	44700	5	6200	8270	90000	2	1.1	<0.1	<0.5	0.2	50	<0.005	0.4	0.9	0.6	0.04
SZMW-1	05/04/2011	Storage	7	<0.1	200000	44900	4	6100	8500	90900	2	1.2	<0.1	<0.5	0.3	50	<0.005	0.6	16.1	25.9	0.04
SZMW-1	05/24/2011	Recovery	7	<0.1	201000	44700	<2	6200	8270	90500	2	1.2	<0.1	<0.5	0.3	60	0.016	0.4	0.9	1.4	0.04
SZMW-1	06/08/2011	Recovery	7	<0.1	198000	44500	<2	6300	8360	90300	2	1.2	<0.1	<0.5	0.3	50	<0.005	0.4	1.2	1.6	0.04
SZMW-2	05/07/2008	Storage	5	<0.1	121000	23900	7	4000	7030	76400	1	<0.1	1	1.7	0.3	<10	<0.005	1	21	35.7	0.1
SZMW-2	06/04/2008	Recovery	6	<0.1	57800	33700	8	4400	6980	76900	1	1	0.8	<0.5	0.3	<10	<0.005	1	0.3	2.5	0.1
SZMW-2	06/18/2008	Recovery	6	<0.1	170000	37700	8	4700	7220	79900	1	1	0.2	<0.5	0.4	20	<0.005	<0.3	1.1	6.6	0.1
SZMW-2	06/24/2008	Recovery	7	<0.1	159000	38700	7	5000	7550	79000	1	<0.1	0.4	<0.5	0.2	10	<0.005	1	0.6	3.3	0.1
SZMW-2	08/04/2008	Storage	6	<0.1	142000	36300	<2	4500	7360	74400	1	<0.1	4.5	<0.5	0.1	<10	<0.005	1	0.3	3.2	0.1
SZMW-2	09/02/2008	Injection	4	<0.1	78400	26500	<2	3900	6920	68200	1	1	7	<0.5	0.2	<10	<0.005	<0.3	8	14.5	0.1
SZMW-2	10/07/2008	Storage	5	<0.1	80100	30000	<2	4200	7120	71000	1	1	7.6	<0.5	0.2	<10	<0.005	<0.3	0.7	3.6	0.1
SZMW-2	11/04/2008	Storage	5	<0.1	147000	30700	<2	4200	6980	71800	1	<0.1	7.6	2.4	0.3	30	<0.005	1	0.8	3.6	0.1
SZMW-2	01/22/2009	Recovery	9	<0.1	244000	55300	<2	6300	8080	96200	2	1	<0.1	<0.5	0.6	40	<0.005	<0.3	0.4	2.9	0.1
SZMW-2	01/28/2009	Recovery	9	<0.1	236000	56600	<2	6100	8130	98000	2	1	<0.1	<0.5	0.2	<10	<0.005	<0.3	<0.2	1.4	<0.01
SZMW-2	02/11/2009	Storage	8	<0.1	325000	79600	<2	5600	7770	143000	2	1	<0.1	<0.5	0.4	<10	<0.005	<0.3	1	4.7	<0.01
SZMW-2	03/03/2009	Storage	7	<0.1	194000	47300	<2	5400	7490	85800	1	1	<0.1	<0.5	0.4	<10	<0.005	<0.3	<0.2	1.7	0.1
SZMW-2	04/01/2009	Storage	7	<0.1	168000	46400	<2	5100	7450	86400	1	1	<0.1	<0.5	0.5	<10	<0.005	<0.3	<0.2	2.1	0.1
SZMW-2	05/06/2009	Recovery	9	<0.1	259000	155000	<2	6200	8200	497000	2	1	<0.1	<0.5	0.2	<10	<0.005	<0.3	0.9	4.2	<0.01
SZMW-2	05/12/2009	Recovery	9	<0.1	248000	57700	<2	6400	8190	101000	2	2	<0.1	<0.5	0.4	<10	<0.005	<0.3	<0.2	1.7	<0.01
SZMW-2	05/20/2009	Recovery	10	<0.1	251000	57400	<2	6500	8290	97900	2	2	<0.1	<0.5	0.4	<10	<0.005	<0.3	<0.2	2	<0.01
SZMW-2	06/02/2009	Storage	9	<0.1	217000	55600	<2	6400	8250	95500	2	1	<0.1	<0.5	0.5	60	<0.005	<0.3	3.9	2.7	<0.01
SZMW-2	07/14/2009	Injection	9	<0.1	197000	52900	<2	5800	8070	96300	2	1.5	<0.1	<0.5	0.6	<10	<0.005	<0.3	<0.2	3.2	<0.01
SZMW-2	09/02/2009	Injection	3	<0.1	86700	19800	<2	4200	6860	56900	1	0.9	0.7	<0.5	<0.1	40	<0.005	0.6	0.6	8.5	0.08
SZMW-2	10/07/2009	Storage	2	<0.1	79600	18200	<2	4000	6380	57700	1	0.8	0.5	<0.5	<0.1	30	<0.005	0.7	0.4	7.2	0.08
SZMW-2	11/04/2009	Storage	3	<0.1	105000	22900	<2	4200	6710	65000	2	0.7	<0.1	<0.5	0.3	50	<0.005	0.7	<0.2	6.9	0.08
SZMW-2	12/02/2009	Storage	4	<0.1	111000	23700	<2	4400	6860	64100	1	0.8	<0.1	<0.5	0.3	50	<0.005	0.7	<0.2	4.5	0.08
SZMW-2	01/06/2010	Storage	3	<0.1	103000	22700	<2	4400	6920	61100	1	0.9	0.4	<0.5	0.1	40	<0.005	0.7	0.2	7.8	0.09

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	11/03/2010	Injection	0.06	22	<0.2	1120	3.35	18600	0.068	<0.01	<0.005	220	0.12	<0.01	<0.2	0.49	<0.001	<0.1	0.04	<0.1	24
SZMW-1	12/01/2010	Storage	0.07	25.2	4.8	1390	4.24	17200	0.052	<0.01	<0.005	264	0.1	0.02	<0.2	0.68	<0.001	<0.1	0.05	0.2	11
SZMW-1	12/22/2010	Recovery	0.02	4.88	1	266	0.863	5710	0.011	<0.01	<0.005	53	0.02	<0.01	<0.2	0.13	<0.001	<0.1	0.01	<0.1	5
SZMW-1	01/06/2011	Storage	0.06	24.6	3.8	1400	4.32	18700	0.052	<0.01	<0.005	263	0.1	0.01	<0.2	0.75	<0.001	<0.1	0.05	0.3	10
SZMW-1	02/02/2011	Storage	0.07	24.7	4.4	1420	4.35	18400	0.053	<0.01	<0.005	267	0.1	<0.01	<0.2	0.73	<0.001	<0.1	0.05	0.3	10
SZMW-1	03/02/2011	Storage	0.08	24.5	3.9	1430	4.39	18700	0.053	<0.01	<0.005	268	0.1	<0.01	<0.2	0.71	<0.001	<0.1	0.05	0.3	13
SZMW-1	04/06/2011	Storage	0.07	24.3	4	1440	4.35	18700	0.049	<0.01	<0.005	266	0.09	<0.01	<0.2	0.66	<0.001	<0.1	0.05	0.3	9
SZMW-1	05/04/2011	Storage	0.08	24	3.8	1460	4.46	19000	0.053	<0.01	<0.005	265	0.1	<0.01	<0.2	0.75	<0.001	0.1	0.04	0.2	13
SZMW-1	05/24/2011	Recovery	0.07	22.8	2.2	1390	4.36	18600	0.049	0.01	<0.005	265	0.1	<0.01	<0.2	0.7	<0.001	<0.1	0.03	0.2	10
SZMW-1	06/08/2011	Recovery	0.06	23	3.8	1430	4.38	18700	0.047	0.01	<0.005	268	0.09	<0.01	<0.2	0.71	<0.001	<0.1	0.03	0.3	12
SZMW-2	05/07/2008	Storage	0.1	7.83	<0.2	720	3.57	12700	0.04	<0.01	<0.005	299	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	1.5	0.3	14
SZMW-2	06/04/2008	Recovery	0.1	7.79	<0.2	790	3.87	22900	0.05	<0.01	<0.005	255	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	1.1	0.3	16
SZMW-2	06/18/2008	Recovery	0.1	7.22	<0.2	880	4.08	23900	0.05	<0.01	<0.005	265	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	0.6	0.3	20
SZMW-2	06/24/2008	Recovery	0.1	6.99	<0.2	930	4.19	23600	0.05	<0.01	<0.005	276	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	0.5	0.3	20
SZMW-2	08/04/2008	Storage	0.1	3.99	<0.2	760	3.79	22500	0.05	<0.01	<0.005	362	<0.01	<0.01	<0.2	0.9	<0.001	<0.1	1.3	0.3	22
SZMW-2	09/02/2008	Injection	0.1	2.26	<0.2	540	3.4	20400	0.04	<0.01	<0.005	318	<0.01	<0.01	<0.2	0.8	<0.001	<0.1	2.5	0.2	14
SZMW-2	10/07/2008	Storage	0.1	3.37	<0.2	640	3.6	21100	0.04	<0.01	<0.005	290	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	2.7	0.3	15
SZMW-2	11/04/2008	Storage	0.1	2.94	<0.2	680	3.54	20900	0.04	<0.01	<0.005	304	<0.01	<0.01	<0.2	0.8	<0.001	<0.1	2.6	0.3	14
SZMW-2	01/22/2009	Recovery	0.1	6.59	<0.2	1400	4.72	28000	0.06	<0.01	<0.005	208	<0.01	<0.01	<0.2	0.5	<0.001	<0.1	0.2	0.5	44
SZMW-2	01/28/2009	Recovery	0.1	4.87	<0.2	1410	4.77	28200	0.06	<0.01	<0.005	206	<0.01	<0.01	<0.2	0.5	<0.001	<0.1	0.2	0.6	44
SZMW-2	02/11/2009	Storage	0.1	13.5	<0.2	1190	4.43	42400	0.06	<0.01	<0.005	264	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	0.2	0.5	37
SZMW-2	03/03/2009	Storage	0.1	9.4	<0.2	1070	4.24	25300	0.05	<0.01	<0.005	296	<0.01	<0.01	<0.2	0.7	<0.001	<0.1	0.2	0.4	37
SZMW-2	04/01/2009	Storage	0.1	7.64	<0.2	1050	4.11	25600	0.05	<0.01	<0.005	321	<0.01	<0.01	<0.2	0.8	<0.001	<0.1	0.2	0.4	39
SZMW-2	05/06/2009	Recovery	0.1	4.68	<0.2	1460	4.68	29600	0.06	<0.01	<0.005	210	<0.01	<0.01	<0.2	0.5	<0.001	<0.1	0.1	0.5	48
SZMW-2	05/12/2009	Recovery	0.1	4.63	<0.2	1490	4.97	28600	0.06	<0.01	<0.005	214	<0.01	<0.01	<0.2	0.5	<0.001	<0.1	0.1	0.6	49
SZMW-2	05/20/2009	Recovery	0.1	5.08	1	1430	4.92	28400	0.06	<0.01	<0.005	213	<0.01	<0.01	<0.2	0.5	<0.001	<0.1	0.1	0.5	47
SZMW-2	06/02/2009	Storage	0.1	6.11	<0.2	1430	4.75	27900	0.06	<0.01	<0.005	238	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	0.1	0.6	49
SZMW-2	07/14/2009	Injection	0.1	12.7	<0.2	1260	4.59	27200	0.06	<0.01	<0.005	266	<0.01	<0.01	<0.2	0.65	<0.001	<0.1	<0.01	0.5	16
SZMW-2	09/02/2009	Injection	0.07	1.95	<0.2	530	3.57	9050	0.108	0.02	<0.005	399	<0.01	<0.01	<0.2	1.59	<0.001	<0.1	1.46	0.1	2
SZMW-2	10/07/2009	Storage	0.06	3.32	<0.2	458	3.45	9100	0.106	0.02	<0.005	430	0.01	<0.01	<0.2	1.68	<0.001	<0.1	3.14	<0.1	2
SZMW-2	11/04/2009	Storage	0.07	10	<0.2	597	3.73	17100	0.109	0.02	<0.005	419	0.01	<0.01	<0.2	1.66	<0.001	<0.1	0.74	0.2	2
SZMW-2	12/02/2009	Storage	0.07	9.23	<0.2	694	3.9	17400	0.12	0.02	<0.005	405	0.01	<0.01	<0.2	1.69	<0.001	<0.1	0.43	0.2	2
SZMW-2	01/06/2010	Storage	0.06	3.51	<0.2	620	3.8	17100	0.115	0.01	<0.005	399	0.01	<0.01	<0.2	1.57	<0.001	<0.1	1.63	0.1	3

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	11/03/2010	Injection	0.014	27.5	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/01/2010	Storage	0.019	32.3	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/22/2010	Recovery	0.004	6.4	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/06/2011	Storage	0.019	32.3	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/02/2011	Storage	0.019	32.6	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/02/2011	Storage	0.02	32.2	0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/06/2011	Storage	0.02	32.4	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/04/2011	Storage	0.019	32.4	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/24/2011	Recovery	0.019	33.7	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/08/2011	Recovery	0.02	33.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/07/2008	Storage	0.02	33	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	06/04/2008	Recovery	0.02	34.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	06/18/2008	Recovery	0.02	35.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	06/24/2008	Recovery	0.02	36.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	08/04/2008	Storage	0.02	33.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	09/02/2008	Injection	0.01	33.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	10/07/2008	Storage	0.01	32.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	11/04/2008	Storage	0.01	32.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/22/2009	Recovery	0.03	40.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/28/2009	Recovery	0.03	40.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	02/11/2009	Storage	0.03	38.7	0.01	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	03/03/2009	Storage	0.02	37	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	04/01/2009	Storage	0.02	35.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/06/2009	Recovery	0.03	40.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/12/2009	Recovery	0.03	40.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/20/2009	Recovery	0.03	41.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	06/02/2009	Storage	0.03	40.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	07/14/2009	Injection	0.03	39	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	09/02/2009	Injection	0.011	31	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	10/07/2009	Storage	0.011	30.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	11/04/2009	Storage	0.013	31.1	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	12/02/2009	Storage	0.014	31.6	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/06/2010	Storage	0.012	30.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	11/03/2010	Injection	<0.001	<0.001	<0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.108
SZMW-1	12/01/2010	Storage	<0.001	<0.001	<0.02	0.043	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.101
SZMW-1	12/22/2010	Recovery	<0.001	<0.001	<0.02	0.009	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.02
SZMW-1	01/06/2011	Storage	<0.001	<0.001	<0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.107
SZMW-1	02/02/2011	Storage	<0.001	<0.001	0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.108
SZMW-1	03/02/2011	Storage	<0.001	<0.001	<0.02	0.046	<0.002	<0.3	<0.002	<0.2	<0.001	0.08	<0.3	<0.001	0.102
SZMW-1	04/06/2011	Storage	0.001	<0.001	0.02	0.045	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.104
SZMW-1	05/04/2011	Storage	<0.001	<0.001	<0.02	0.042	<0.002	<0.3	<0.002	<0.2	<0.001	1.56	<0.3	<0.001	0.108
SZMW-1	05/24/2011	Recovery	<0.001	<0.001	<0.02	0.042	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	0.003	0.107
SZMW-1	06/08/2011	Recovery	0.001	<0.001	0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.108
SZMW-2	05/07/2008	Storage	<0.001	<0.001	<0.02	0.08	<0.002	<0.3	<0.002	<0.2	<0.001	1	<0.3	<0.001	1.04
SZMW-2	06/04/2008	Recovery	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	1.87
SZMW-2	06/18/2008	Recovery	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	1.67
SZMW-2	06/24/2008	Recovery	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	1.67
SZMW-2	08/04/2008	Storage	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	1.93
SZMW-2	09/02/2008	Injection	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.77
SZMW-2	10/07/2008	Storage	<0.001	<0.001	<0.02	0.065	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.3
SZMW-2	11/04/2008	Storage	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	2.16
SZMW-2	01/22/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.73
SZMW-2	01/28/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.73
SZMW-2	02/11/2009	Storage	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.48
SZMW-2	03/03/2009	Storage	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.42
SZMW-2	04/01/2009	Storage	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.35
SZMW-2	05/06/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.52
SZMW-2	05/12/2009	Recovery	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.56
SZMW-2	05/20/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.48
SZMW-2	06/02/2009	Storage	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.39
SZMW-2	07/14/2009	Injection	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.315
SZMW-2	09/02/2009	Injection	<0.001	<0.001	<0.02	0.098	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	1.65
SZMW-2	10/07/2009	Storage	<0.001	<0.001	<0.02	0.102	<0.002	<0.3	<0.002	<0.2	<0.001	0.07	<0.3	<0.001	1.74
SZMW-2	11/04/2009	Storage	<0.001	<0.001	<0.02	0.101	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.454
SZMW-2	12/02/2009	Storage	<0.001	<0.001	<0.02	0.099	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.315
SZMW-2	01/06/2010	Storage	<0.001	<0.001	<0.02	0.093	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.491

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-2	02/03/2010	Storage	3	<0.1	93100	20700	3	3900	6430	58600	2	0.9	0.1	<0.5	8.7	240	<0.005	0.6	<0.2	4.2	0.04
SZMW-2	03/03/2010	Storage	4	<0.1	154000	31200	2	4700	7210	73700	2	1	<0.1	<0.5	0.5	60	<0.005	0.5	1	3.8	0.07
SZMW-2	03/24/2010	Injection	2	<0.1	72500	18700	3	3700	6300	52700	1	0.9	0.6	<0.5	0.3	70	<0.005	0.7	1.2	7.6	0.1
SZMW-2	04/07/2010	Injection	2	<0.1	73400	18900	3	3700	6330	54400	1	0.9	0.6	<0.5	0.2	40	<0.005	0.6	0.4	4.4	0.09
SZMW-2	05/04/2010	Storage	3	<0.1	81000	18400	3	3700	6390	56400	1	1	<0.1	<0.5	0.2	30	<0.005	0.6	0.4	5.3	0.09
SZMW-2	06/02/2010	Storage	4	<0.1	124000	26400	3	4700	7330	67300	2	1.1	<0.1	<0.5	0.2	50	<0.005	0.6	<0.2	4.8	0.08
SZMW-2	07/14/2010	Storage	3	<0.1	97000	22200	4	4300	7120	58400	1	0.9	0.1	<0.5	<0.1	20	<0.005	0.4	<0.2	2.2	0.08
SZMW-2	07/28/2010	Recovery	5	<0.1	142000	31200	5	5600	7970	70900	1	1.1	<0.1	<0.5	0.2	20	<0.005	0.4	<0.2	1.4	0.07
SZMW-2	08/04/2010	Recovery	6	<0.1	157000	34600	5	6200	8540	73700	2	1.3	<0.1	<0.5	0.1	30	<0.005	0.4	<0.2	1.4	0.06
SZMW-2	09/01/2010	Injection	2	<0.1	72500	19900	5	3800	6730	53500	<1	0.8	0.4	<0.5	0.1	20	<0.005	0.8	33.2	85.7	0.1
SZMW-2	10/06/2010	Injection	2	<0.1	71600	19000	5	3700	6960	54300	<1	0.8	5.4	<0.5	<0.1	20	<0.005	0.6	1.3	6.5	0.13
SZMW-2	12/01/2010	Storage	3	<0.1	73900	19700	6	3700	6680	54600	<1	0.7	0.9	<0.5	0.2	20	<0.005	0.5	<0.2	3	0.12
SZMW-2	12/22/2010	Recovery	4	<0.1	94300	20600	5	4300	7140	61000	1	0.9	0.3	<0.5	0.2	20	<0.005	0.5	<0.2	0.9	0.11
SZMW-2	01/06/2011	Storage	5	<0.1	120000	26400	7	5000	7700	65500	1	1	0.1	<0.5	0.2	20	<0.005	0.4	<0.2	1.1	0.11
SZMW-2	02/02/2011	Storage	4	<0.1	116000	25500	5	4600	7410	64400	1	0.9	<0.1	<0.5	0.2	20	<0.005	0.4	<0.2	3.2	0.09
SZMW-2	03/02/2011	Storage	5	<0.1	136000	31000	6	4600	7460	72600	1	1	<0.1	<0.5	0.3	20	<0.005	0.5	1	4.1	0.09
SZMW-2	04/06/2011	Storage	4	<0.1	116000	25600	5	4700	7570	64000	1	0.9	<0.1	<0.5	0.4	20	<0.005	0.5	<0.2	9.3	0.1
SZMW-2	05/04/2011	Storage	4	<0.1	116000	25600	3	4500	7550	63400	1	0.9	<0.1	<0.5	1.1	30	<0.005	0.5	3.2	10.3	0.09
SZMW-2	05/24/2011	Recovery	10	<0.5	151000	64400	<10	9800	14500	73300	<5	2	<0.5	<3	<0.5	110	<0.03	3.5	1.8	6.9	<0.05
SZMW-2	06/08/2011	Recovery	7	<0.1	165000	38900	<2	6400	8670	79900	2	1.1	<0.1	<0.5	0.1	20	<0.005	0.3	1	<0.5	0.07

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Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-2	02/03/2010	Storage	0.07	2.96	<0.2	553	3.54	9090	0.095	0.1	<0.005	397	0.01	<0.01	<0.2	1.56	<0.001	<0.1	0.75	0.1	4
SZMW-2	03/03/2010	Storage	0.08	8.77	<0.2	984	4.07	18500	0.118	0.04	<0.005	346	<0.01	<0.01	<0.2	1.35	<0.001	<0.1	0.29	0.2	6
SZMW-2	03/24/2010	Injection	0.06	1.47	<0.2	398	3.44	9030	0.097	0.03	<0.005	413	0.01	<0.01	<0.2	1.69	<0.001	<0.1	2.77	<0.1	4
SZMW-2	04/07/2010	Injection	0.07	1.91	<0.2	413	3.39	9060	0.095	0.03	<0.005	388	<0.01	<0.01	<0.2	1.55	<0.001	<0.1	3.82	0.2	3
SZMW-2	05/04/2010	Storage	0.06	4.31	<0.2	486	3.47	9080	0.099	0.02	<0.005	369	<0.01	<0.01	<0.2	1.45	<0.001	<0.1	2.03	0.2	4
SZMW-2	06/02/2010	Storage	0.08	6.26	<0.2	801	4.11	17800	0.122	0.02	<0.005	349	0.01	<0.01	<0.2	1.39	<0.001	<0.1	0.43	0.2	5
SZMW-2	07/14/2010	Storage	0.06	6.49	1.3	610	3.68	11100	0.043	0.01	<0.005	382	0.08	<0.01	<0.2	0.93	<0.001	<0.1	1	0.1	6
SZMW-2	07/28/2010	Recovery	0.07	3.04	1.3	981	4.24	11100	0.05	<0.01	<0.005	309	0.09	<0.01	<0.2	0.76	<0.001	<0.1	0.43	0.1	7
SZMW-2	08/04/2010	Recovery	0.08	2.45	2	1140	4.58	11100	0.052	<0.01	<0.005	299	0.1	<0.01	<0.2	0.73	<0.001	<0.1	0.31	0.2	8
SZMW-2	09/01/2010	Injection	0.05	1.72	0.9	387	3.4	11000	0.041	0.01	<0.005	387	0.07	<0.01	<0.2	0.91	<0.001	<0.1	3.11	<0.1	5
SZMW-2	10/06/2010	Injection	0.06	2.18	0.5	390	3.58	11000	0.037	0.01	<0.005	429	0.07	<0.01	<0.2	1.04	<0.001	<0.1	6.1	<0.1	5
SZMW-2	12/01/2010	Storage	0.05	4.96	0.7	432	3.52	11000	0.034	0.01	<0.005	366	0.07	<0.01	<0.2	0.85	<0.001	<0.1	3.54	<0.1	9
SZMW-2	12/22/2010	Recovery	0.07	5.04	0.3	600	3.79	11000	0.04	0.01	<0.005	352	0.07	<0.01	<0.2	0.8	<0.001	<0.1	2.12	<0.1	8
SZMW-2	01/06/2011	Storage	0.07	5.37	1.1	836	4.2	11100	0.046	0.01	<0.005	328	0.1	<0.01	<0.2	0.74	<0.001	<0.1	1.24	0.1	7
SZMW-2	02/02/2011	Storage	0.07	6.86	0.9	785	4.03	11100	0.042	<0.01	<0.005	325	0.09	<0.01	<0.2	0.76	<0.001	<0.1	0.92	0.1	7
SZMW-2	03/02/2011	Storage	0.06	5.88	1.2	922	4.1	17800	0.045	0.01	<0.005	314	0.08	<0.01	<0.2	0.74	<0.001	<0.1	0.67	0.1	7
SZMW-2	04/06/2011	Storage	0.07	5.2	0.9	792	3.95	11100	0.042	0.01	<0.005	337	0.08	<0.01	<0.2	0.8	<0.001	<0.1	0.85	0.1	7
SZMW-2	05/04/2011	Storage	0.07	4.75	1	775	3.91	11100	0.043	<0.01	<0.005	340	0.07	<0.01	<0.2	0.78	<0.001	<0.1	0.97	<0.1	7
SZMW-2	05/24/2011	Recovery	0.2	8.2	<1	2030	8.14	17500	0.17	<0.05	<0.03	558	0.4	<0.05	<1	1.28	<0.005	<0.5	1.27	<0.5	64
SZMW-2	06/08/2011	Recovery	0.08	1.99	1	1180	4.59	20400	0.054	<0.01	0.005	265	0.1	<0.01	<0.2	0.62	<0.001	<0.1	0.48	0.2	9

FLORIDA GEOLOGICAL SURVEY

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-2	02/03/2010	Storage	0.017	32.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	03/03/2010	Storage	0.019	35.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	03/24/2010	Injection	0.01	29.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	04/07/2010	Injection	0.009	29.5	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/04/2010	Storage	0.011	29	0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	06/02/2010	Storage	0.015	32.5	0.001	<0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	07/14/2010	Storage	0.014	31.6	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	07/28/2010	Recovery	0.018	35.3	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	08/04/2010	Recovery	0.021	36.4	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	09/01/2010	Injection	0.01	28.2	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	10/06/2010	Injection	0.011	28.6	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	12/01/2010	Storage	0.01	28.8	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	12/22/2010	Recovery	0.013	30.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/06/2011	Storage	0.016	33.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	02/02/2011	Storage	0.016	31.8	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	03/02/2011	Storage	0.016	32.5	0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	04/06/2011	Storage	0.015	31.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/04/2011	Storage	0.017	31.3	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/24/2011	Recovery	0.045	69.3	0.053	0.047	<0.005	<0.005	<0.005	<0.005	0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
SZMW-2	06/08/2011	Recovery	0.02	36.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Punta Gorda ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-2	02/03/2010	Storage	0.002	<0.001	0.02	0.091	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.465
SZMW-2	03/03/2010	Storage	<0.001	<0.001	<0.02	0.083	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.254
SZMW-2	03/24/2010	Injection	<0.001	<0.001	<0.02	0.09	<0.002	<0.3	<0.002	<0.2	<0.001	0.07	<0.3	<0.001	0.75
SZMW-2	04/07/2010	Injection	<0.001	<0.001	<0.02	0.081	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	1.61
SZMW-2	05/04/2010	Storage	<0.001	<0.001	<0.02	0.082	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.476
SZMW-2	06/02/2010	Storage	<0.001	<0.001	0.02	0.073	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.295
SZMW-2	07/14/2010	Storage	<0.001	<0.001	0.02	0.084	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.294
SZMW-2	07/28/2010	Recovery	<0.001	<0.001	0.03	0.063	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.362
SZMW-2	08/04/2010	Recovery	<0.001	<0.001	0.04	0.057	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.453
SZMW-2	09/01/2010	Injection	<0.001	<0.001	<0.02	0.065	<0.002	<0.3	<0.002	<0.2	<0.001	0.77	<0.3	<0.001	1.18
SZMW-2	10/06/2010	Injection	<0.001	<0.001	<0.02	0.086	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	2.67
SZMW-2	12/01/2010	Storage	<0.001	<0.001	<0.02	0.071	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	1.17
SZMW-2	12/22/2010	Recovery	0.001	<0.001	0.02	0.066	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.944
SZMW-2	01/06/2011	Storage	<0.001	<0.001	0.02	0.058	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.705
SZMW-2	02/02/2011	Storage	<0.001	<0.001	0.02	0.062	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.472
SZMW-2	03/02/2011	Storage	<0.001	<0.001	<0.02	0.058	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.357
SZMW-2	04/06/2011	Storage	<0.001	<0.001	<0.02	0.065	<0.002	<0.3	<0.002	<0.2	<0.001	0.08	<0.3	<0.001	0.303
SZMW-2	05/04/2011	Storage	<0.001	<0.001	<0.02	0.062	<0.002	<0.3	<0.002	<0.2	<0.001	0.22	<0.3	<0.001	0.266
SZMW-2	05/24/2011	Recovery	0.01	<0.005	<0.1	0.097	<0.01	<2	<0.01	<1	<0.005	0.11	<2	<0.005	0.722
SZMW-2	06/08/2011	Recovery	<0.001	<0.001	0.02	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.013	0.586

FLORIDA GEOLOGICAL SURVEY

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	03/10/2009	Recovery	<10	<1	54400	7440	32	4600	3050	103000	<10	1.5	<1	<5	9.2	<100	0.453	4.8	2	9.5	<0.1
ASR-1	03/24/2009	Recovery	<10	<1	57500	7290	30	3900	2960	96900	<10	1.2	<1	<5	7.6	<100	0.358	4.2	3.6	7.3	<0.1
ASR-1	03/31/2009	Recovery	<10	<1	64000	7730	29	4000	3060	98100	<10	<1	<1	<5	7.2	<100	0.281	3.9	3	8.3	<0.1
ASR-1	04/07/2009	Recovery	<10	<1	70000	8120	29	4600	3150	97200	<10	<1	<1	<5	7.2	120	0.258	3.9	295	182	<0.1
ASR-1	04/14/2009	Recovery	<10	<1	77800	8680	28	4400	3260	98300	<10	<1	<1	<5	6.9	140	0.225	4	<2	5.8	<0.1
ASR-1	04/21/2009	Recovery	<10	<1	92400	10200	32	4500	3790	106000	<10	1.6	<1	<5	7.3	200	0.258	3.9	2.3	8.3	<0.1
ASR-1	04/28/2009	Recovery	<10	<1	95100	10100	30	4600	3670	101000	<10	<1	<1	<5	6.8	190	0.229	3.5	<2	13.4	<0.1
ASR-1	05/04/2010	Recovery	1	<0.1	31000	5300	5	5100	3270	68000	1	1.3	1.3	3.5	44.1	200	1.54	6	1.5	24	0.01
ASR-1	05/11/2010	Recovery	1	<0.1	34500	5750	4	4900	3020	76700	1	1	1	2.5	12.7	30	0.4	4.9	2.4	16.8	0.01
ASR-1	05/18/2010	Recovery	2	<0.1	39100	6190	3	5100	2930	79000	1	1.2	0.9	2	9.2	20	0.237	4.1	5.8	18.8	0.01
ASR-1	05/25/2010	Recovery	2	<0.1	42900	6600	3	5200	2920	80700	1	1.2	0.9	1.9	8.1	40	0.172	4.5	149	54.6	0.01
ASR-1	06/01/2010	Recovery	2	<0.1	47400	6900	3	5400	2930	80700	1	1.3	0.9	1.5	6.6	40	0.084	3.1	2.5	15.1	0.01
ASR-1	06/08/2010	Recovery	1	<0.1	51600	5830	3	4900	2710	83200	2	1.1	0.6	0.7	7.4	<10	0.155	3.4	3.7	14.7	0.01
ASR-1	06/15/2010	Recovery	2	<0.1	51900	7210	<2	5200	3140	82200	1	1	0.4	<0.5	6.8	190	0.23	3.4	3.7	9.3	0.01
ASR-1	06/22/2010	Recovery	2	<0.1	60300	8070	2	5400	3400	84700	1	1	0.5	<0.5	8.1	820	0.228	3.6	4.4	262	0.01
ASR-1	07/13/2010	Injection	1	<0.1	33100	4190	16	4300	2940	67500	1	1.1	0.3	0.6	53.5	3530	3.5	5.8	9.1	1870	0.03
ASR-1	03/15/2011	Recovery	1	<0.1	38000	5740	3	5000	2540	79900	1	0.9	0.3	<0.5	7.1	110	0.394	4.4	0.6	14.4	0.01
ASR-4	03/10/2009	Recovery	<10	<1	148000	14400	56	4100	5440	118000	<10	<1	<1	<5	8	150	0.371	5.5	2.4	<5	<0.1
ASR-4	03/23/2009	Recovery	<10	<1	194000	17900	39	4100	6610	130000	<10	1.2	<1	<5	7.6	300	0.277	4.9	2.2	5.1	<0.1
ASR-4	03/31/2009	Recovery	<10	<1	210000	19900	37	4000	6950	130000	<10	<1	<1	<5	6.8	300	0.222	5	<2	<5	<0.1
ASR-4	04/07/2009	Recovery	<10	<1	233000	22100	31	4400	7370	133000	<10	<1	<1	<5	6.6	280	0.195	4.8	<2	5.4	<0.1
ASR-4	04/14/2009	Recovery	<10	<1	265000	24800	30	3800	8290	141000	<10	2	<1	<5	6.5	340	0.196	5.1	2.4	8.5	<0.1
ASR-4	04/21/2009	Recovery	<10	<1	296000	27700	29	4100	8760	140000	<10	<1	<1	<5	6.7	310	0.187	5	<2	5.9	<0.1
ASR-4	04/28/2009	Recovery	<10	<1	317000	30100	33	4400	9380	141000	<10	<1	<1	<5	6.9	310	0.202	6.7	4.3	18.9	<0.1
ASR-4	05/12/2009	Recovery	<10	<1	355000	35300	31	4000	11000	157000	<10	<1	<1	<5	7.2	370	0.22	6	<2	8.4	<0.1
ASR-4	05/19/2009	Recovery	<10	<1	375000	36300	31	4300	11000	156000	<10	<1	<1	<5	6.8	320	0.18	6.6	<2	<5	<0.1
ASR-4	05/04/2010	Recovery	1	<0.1	53800	5590	4	4600	3250	76300	2	1.1	0.3	0.7	30.5	<10	1.11	5.8	0.7	12.4	0.01
ASR-4	05/18/2010	Recovery	2	<0.1	80200	9480	3	4700	4280	91500	2	1.1	0.3	0.7	9.3	<10	0.25	4.8	1.8	12.1	0.01
ASR-4	05/25/2010	Recovery	2	<0.1	102000	10900	3	4700	4580	94800	2	1.1	0.3	0.8	7.9	<10	0.16	4.8	1.5	14.2	0.02
ASR-4	06/01/2010	Recovery	3	<0.1	163000	12100	3	4600	4880	94800	2	1.2	0.3	1	7.2	<10	0.107	4.3	2.2	11.4	0.01
ASR-4	06/08/2010	Recovery	3	<0.1	160000	13400	4	4600	5230	101000	2	1.1	0.4	1.2	6.8	290	0.081	4.7	1.6	11.6	0.02
ASR-4	06/15/2010	Recovery	3	<0.1	161000	17300	3	5200	6710	110000	1	1	<0.1	<0.5	7.2	490	0.195	4.3	3	3.7	0.01
ASR-4	06/22/2010	Recovery	3	<0.1	177000	17100	5	5200	7200	109000	1	1.2	<0.1	<0.5	7.3	1010	0.182	9.1	8.6	26.6	0.02

REPORT OF INVESTIGATION NO. 112

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	03/10/2009	Recovery	<0.1	8.58	<2	286	4.18	379	0.051	<0.1	<0.05	173	<0.1	<0.1	<2	0.59	<0.01	<1	0.19	<1	<10
ASR-1	03/24/2009	Recovery	<0.1	8.96	<2	338	3.7	339	0.043	<0.1	<0.05	138	<0.1	<0.1	<2	0.49	<0.01	<1	0.14	<1	<10
ASR-1	03/31/2009	Recovery	<0.1	8.39	<2	387	3.64	336	0.05	<0.1	<0.05	126	<0.1	<0.1	<2	0.38	<0.01	<1	0.16	<1	<10
ASR-1	04/07/2009	Recovery	<0.1	8.26	<2	438	3.72	339	0.048	<0.1	<0.05	117	<0.1	<0.1	<2	0.41	<0.01	<1	0.15	<1	<10
ASR-1	04/14/2009	Recovery	<0.1	8.6	<2	492	3.66	349	0.051	<0.1	<0.05	107	<0.1	<0.1	<2	0.29	<0.01	<1	0.13	<1	<10
ASR-1	04/21/2009	Recovery	<0.1	10.2	<2	595	3.99	390	0.058	<0.1	<0.05	107	<0.1	<0.1	<2	0.37	<0.01	<1	0.16	<1	<10
ASR-1	04/28/2009	Recovery	<0.1	9.13	<2	624	3.77	380	0.051	<0.1	<0.05	92.3	<0.1	<0.1	<2	0.29	<0.01	<1	0.14	<1	<10
ASR-1	05/04/2010	Recovery	0.05	5.94	0.7	183	4.27	230	0.006	0.02	<0.005	56.7	0.01	<0.01	<0.2	0.19	<0.001	<0.1	0.13	<0.1	480
ASR-1	05/11/2010	Recovery	0.03	7.44	0.9	178	3.94	240	0.005	0.01	<0.005	151	<0.01	<0.01	<0.2	0.41	<0.001	<0.1	0.11	<0.1	26
ASR-1	05/18/2010	Recovery	0.04	8.17	0.4	205	4	250	0.005	0.02	<0.005	183	0.01	<0.01	<0.2	0.5	<0.001	0.2	0.12	<0.1	13
ASR-1	05/25/2010	Recovery	0.03	9.12	0.4	234	3.86	260	0.005	0.01	<0.005	179	<0.01	<0.01	<0.2	0.44	<0.001	2.2	0.18	<0.1	9
ASR-1	06/01/2010	Recovery	0.03	9.49	<0.2	241	3.71	270	0.005	0.01	<0.005	168	<0.01	<0.01	<0.2	0.41	<0.001	0.1	0.11	<0.1	9
ASR-1	06/08/2010	Recovery	0.03	10.5	1.2	276	3.75	270	0.006	0.03	<0.005	150	<0.01	0.08	<0.2	0.75	<0.001	0.1	0.11	<0.1	11
ASR-1	06/15/2010	Recovery	0.02	10.6	0.5	307	3.64	310	0.003	<0.01	<0.005	139	<0.01	<0.01	<0.2	0.31	<0.001	0.1	0.11	<0.1	4
ASR-1	06/22/2010	Recovery	0.03	11.6	0.8	377	3.76	300	0.004	<0.01	<0.005	133	<0.01	<0.01	<0.2	0.65	<0.001	0.1	0.12	<0.1	5
ASR-1	07/13/2010	Injection	0.04	0.68	0.3	115	3.37	200	0.05	0.02	<0.005	0.5	<0.01	<0.01	<0.2	0.07	<0.001	0.1	0.06	<0.1	3
ASR-1	03/15/2011	Recovery	0.03	8.43	0.9	182	3.19	270	0.006	<0.01	<0.005	85.7	<0.01	<0.01	<0.2	0.22	<0.001	<0.1	0.15	<0.1	5
ASR-4	03/10/2009	Recovery	<0.1	14.3	<2	886	4.86	663	0.06	<0.1	<0.05	298	<0.1	<0.1	<2	0.96	<0.01	<1	<0.1	<1	<10
ASR-4	03/23/2009	Recovery	<0.1	16.4	<2	1190	5.07	786	0.055	<0.1	<0.05	272	<0.1	<0.1	<2	0.95	<0.01	<1	<0.1	<1	<10
ASR-4	03/31/2009	Recovery	<0.1	16.4	<2	1270	4.94	814	0.052	<0.1	<0.05	251	<0.1	<0.1	<2	0.8	<0.01	<1	<0.1	<1	<10
ASR-4	04/07/2009	Recovery	<0.1	16.3	<2	1450	5.06	904	0.053	<0.1	<0.05	229	<0.1	<0.1	<2	0.76	<0.01	<1	<0.1	<1	<10
ASR-4	04/14/2009	Recovery	<0.1	18.2	<2	1660	5.1	988	0.047	<0.1	<0.05	217	<0.1	<0.1	<2	0.7	<0.01	<1	<0.1	<1	<10
ASR-4	04/21/2009	Recovery	<0.1	16.9	<2	1800	5.1	1070	0.051	<0.1	<0.05	199	<0.1	<0.1	<2	0.66	<0.01	<1	<0.1	<1	<10
ASR-4	04/28/2009	Recovery	<0.1	17	<2	1880	5.09	1120	0.051	<0.1	<0.05	188	<0.1	<0.1	<2	0.6	<0.01	<1	0.14	<1	<10
ASR-4	05/12/2009	Recovery	<0.1	20.8	<2	2340	5.58	1300	0.058	<0.1	<0.05	178	<0.1	<0.1	<2	0.66	<0.01	<1	<0.1	<1	<10
ASR-4	05/19/2009	Recovery	<0.1	19.5	<2	2360	5.46	1340	0.052	0.17	<0.05	168	<0.1	<0.1	<2	0.54	<0.01	<1	<0.1	<1	<10
ASR-4	05/04/2010	Recovery	0.05	16.8	1	328	4.89	290	0.005	0.02	<0.005	121	<0.01	0.05	<0.2	0.56	<0.001	<0.1	0.08	<0.1	563
ASR-4	05/18/2010	Recovery	0.03	21	1.8	637	4.87	390	0.005	0.01	<0.005	281	0.01	0.13	<0.2	1.37	<0.001	<0.1	0.1	<0.1	31
ASR-4	05/25/2010	Recovery	0.03	21.5	2.1	743	4.97	430	0.005	0.01	<0.005	321	0.01	0.12	<0.2	1.52	<0.001	<0.1	0.09	<0.1	17
ASR-4	06/01/2010	Recovery	0.03	21.9	2.3	842	4.99	470	0.006	0.01	<0.005	312	<0.01	0.15	<0.2	1.51	<0.001	<0.1	0.09	<0.1	14
ASR-4	06/08/2010	Recovery	0.03	26.3	2.7	973	5.06	510	0.008	0.01	<0.005	300	0.01	0.15	<0.2	1.38	<0.001	<0.1	0.09	<0.1	11
ASR-4	06/15/2010	Recovery	0.03	24.2	1.1	1090	4.98	620	0.004	<0.01	<0.005	272	<0.01	<0.01	<0.2	0.56	<0.001	<0.1	0.08	<0.1	4
ASR-4	06/22/2010	Recovery	0.03	37.9	1.9	1250	5.09	630	0.007	0.01	<0.005	257	<0.01	<0.01	<0.2	1.24	<0.001	0.2	0.13	<0.1	5

FLORIDA GEOLOGICAL SURVEY

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	03/10/2009	Recovery	0.109	14.3	<0.01	<0.01	<0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	03/24/2009	Recovery	0.141	13.8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	03/31/2009	Recovery	0.135	13.8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	04/07/2009	Recovery	0.15	13.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	04/14/2009	Recovery	0.161	14.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	04/21/2009	Recovery	0.169	14.8	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	04/28/2009	Recovery	0.157	14.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-1	05/04/2010	Recovery	0.194	17.9	<0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	05/11/2010	Recovery	0.083	15.9	<0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	05/18/2010	Recovery	0.074	16.6	<0.001	<0.001	<0.001	0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
ASR-1	05/25/2010	Recovery	0.078	17	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	06/01/2010	Recovery	0.087	17	<0.001	<0.001	<0.001	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	06/08/2010	Recovery	0.098	14.6	0.003	0.004	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	06/15/2010	Recovery	0.101	15	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-1	06/22/2010	Recovery	0.122	15.1	0.002	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
ASR-1	07/13/2010	Injection	0.093	10	0.032	0.026	0.005	0.015	0.004	<0.001	0.004	<0.001	0.004	<0.001	0.003	<0.001	0.003	<0.001
ASR-1	03/15/2011	Recovery	0.066	13.4	0.002	0.003	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	03/10/2009	Recovery	0.165	18.9	0.072	0.075	<0.01	<0.01	0.012	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	03/23/2009	Recovery	0.19	20.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	03/31/2009	Recovery	0.191	20.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	04/07/2009	Recovery	0.18	20.9	0.013	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	04/14/2009	Recovery	0.186	22.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	04/21/2009	Recovery	0.181	23.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	04/28/2009	Recovery	0.178	23.7	0.013	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	05/12/2009	Recovery	0.183	25.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	05/19/2009	Recovery	0.192	26.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-4	05/04/2010	Recovery	0.222	16.5	0.002	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	05/18/2010	Recovery	0.116	19.8	0.002	0.002	<0.001	<0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	05/25/2010	Recovery	0.13	20.1	0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	06/01/2010	Recovery	0.144	20.2	0.002	0.002	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	06/08/2010	Recovery	0.159	20.3	0.002	0.002	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	06/15/2010	Recovery	0.155	21.5	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	06/22/2010	Recovery	0.164	22.1	0.005	0.005	<0.001	0.002	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-1	03/10/2009	Recovery	<0.01	<0.01	<0.2	0.139	<0.02	<3	<0.02	<2	0.121	0.24	<3	<0.01	3.57
ASR-1	03/24/2009	Recovery	<0.01	<0.01	<0.2	0.112	<0.02	<3	<0.02	<2	0.211	0.11	<3	<0.01	3.72
ASR-1	03/31/2009	Recovery	<0.01	<0.01	<0.2	0.088	<0.02	<3	<0.02	<2	0.314	0.47	<3	<0.01	4.05
ASR-1	04/07/2009	Recovery	<0.01	<0.01	<0.2	0.089	<0.02	<3	<0.02	<2	0.436	14	<3	<0.01	4.46
ASR-1	04/14/2009	Recovery	<0.01	<0.01	<0.2	0.082	<0.02	<3	<0.02	<2	0.593	<0.1	<3	<0.01	4.98
ASR-1	04/21/2009	Recovery	<0.01	<0.01	<0.2	0.063	<0.02	<3	<0.02	<2	0.703	0.31	<3	<0.01	5.2
ASR-1	04/28/2009	Recovery	<0.01	<0.01	<0.2	0.058	<0.02	<3	<0.02	<2	0.828	<0.1	<3	<0.01	5.5
ASR-1	05/04/2010	Recovery	<0.001	<0.001	<0.02	0.14	<0.002	<0.3	<0.002	<0.2	0.065	0.02	<0.3	<0.001	0.495
ASR-1	05/11/2010	Recovery	<0.001	<0.001	<0.02	0.255	<0.002	<0.3	<0.002	<0.2	0.021	0.09	<0.3	<0.001	0.842
ASR-1	05/18/2010	Recovery	<0.001	<0.001	<0.02	0.185	<0.002	<0.3	<0.002	<0.2	0.031	2.04	<0.3	<0.001	0.967
ASR-1	05/25/2010	Recovery	<0.001	<0.001	<0.02	0.148	<0.002	<0.3	<0.002	<0.2	0.033	11.9	<0.3	<0.001	1.12
ASR-1	06/01/2010	Recovery	<0.001	<0.001	<0.02	0.116	<0.002	<0.3	<0.002	<0.2	0.044	0.02	<0.3	<0.001	1.28
ASR-1	06/08/2010	Recovery	0.001	<0.001	<0.02	0.099	<0.002	<0.3	<0.002	<0.2	0.056	0.14	<0.3	<0.001	1.3
ASR-1	06/15/2010	Recovery	<0.001	<0.001	<0.02	0.077	<0.002	<0.3	<0.002	<0.2	0.067	0.69	<0.3	<0.001	1.46
ASR-1	06/22/2010	Recovery	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	0.084	1.48	<0.3	0.002	1.61
ASR-1	07/13/2010	Injection	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	0.013	0.29	<0.3	0.005	0.089
ASR-1	03/15/2011	Recovery	<0.001	<0.001	<0.02	0.097	<0.002	<0.3	<0.002	<0.2	0.039	0.05	<0.3	<0.001	0.873
ASR-4	03/10/2009	Recovery	<0.01	<0.01	<0.2	0.081	<0.02	<3	<0.02	<2	0.05	0.11	<3	<0.01	1.08
ASR-4	03/23/2009	Recovery	<0.01	<0.01	<0.2	0.068	<0.02	<3	<0.02	<2	0.069	0.24	<3	<0.01	1.26
ASR-4	03/31/2009	Recovery	<0.01	<0.01	<0.2	0.057	<0.02	<3	<0.02	<2	0.081	0.12	<3	<0.01	1.33
ASR-4	04/07/2009	Recovery	<0.01	<0.01	<0.2	0.05	<0.02	<3	<0.02	<2	0.104	0.23	<3	<0.01	1.54
ASR-4	04/14/2009	Recovery	<0.01	<0.01	<0.2	0.045	<0.02	<3	<0.02	<2	0.117	0.2	<3	<0.01	1.7
ASR-4	04/21/2009	Recovery	<0.01	<0.01	<0.2	0.04	<0.02	<3	<0.02	<2	0.135	0.16	<3	<0.01	1.84
ASR-4	04/28/2009	Recovery	<0.01	<0.01	<0.2	0.033	<0.02	<3	<0.02	<2	0.147	2.73	<3	<0.01	1.91
ASR-4	05/12/2009	Recovery	<0.01	<0.01	<0.2	0.033	<0.02	<3	<0.02	<2	0.141	0.11	<3	<0.01	2.05
ASR-4	05/19/2009	Recovery	<0.01	<0.01	<0.2	0.027	<0.02	<3	<0.02	<2	0.134	0.14	<3	<0.01	2.13
ASR-4	05/04/2010	Recovery	<0.001	<0.001	<0.02	0.049	<0.002	<0.3	<0.002	<0.2	0.011	0.04	<0.3	<0.001	0.247
ASR-4	05/18/2010	Recovery	<0.001	<0.001	<0.02	0.078	<0.002	<0.3	<0.002	<0.2	0.011	0.04	<0.3	<0.001	0.349
ASR-4	05/25/2010	Recovery	<0.001	<0.001	<0.02	0.072	<0.002	<0.3	<0.002	<0.2	0.012	0.04	<0.3	<0.001	0.343
ASR-4	06/01/2010	Recovery	<0.001	<0.001	<0.02	0.066	<0.002	<0.3	<0.002	<0.2	0.014	0.02	<0.3	<0.001	0.361
ASR-4	06/08/2010	Recovery	<0.001	<0.001	<0.02	0.062	<0.002	<0.3	<0.002	<0.2	0.017	0.12	<0.3	<0.001	0.406
ASR-4	06/15/2010	Recovery	<0.001	<0.001	<0.02	0.054	<0.002	<0.3	<0.002	<0.2	0.018	0.04	<0.3	<0.001	0.45
ASR-4	06/22/2010	Recovery	<0.001	<0.001	<0.02	0.045	<0.002	<0.3	<0.002	<0.2	0.026	2.72	<0.3	0.001	0.525

FLORIDA GEOLOGICAL SURVEY

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-4	03/15/2011	Recovery	1	<0.1	85200	6870	<2	3500	2800	88900	<1	0.7	0.1	<0.5	5	70	0.382	6.1	0.3	4.1	0.01
ASR-4	03/29/2011	Recovery	2	<0.1	126000	13500	4	5000	5300	96800	1	0.9	<0.1	<0.5	5.8	180	0.327	4.9	1.1	3.6	0.01
ASR-6	03/10/2009	Recovery	<10	<1	59900	7300	43	4400	3360	115000	<10	<1	<1	<5	5.6	110	0.343	6.5	2.5	5.5	<0.1
ASR-6	03/23/2009	Recovery	<10	<1	87000	8210	32	4500	3840	113000	<10	<1	<1	<5	4.5	200	0.229	4.9	<2	<5	<0.1
ASR-6	03/31/2009	Recovery	<10	<1	111000	9950	32	4300	4300	119000	<10	<1	<1	<5	4	250	0.164	5.1	<2	<5	<0.1
ASR-6	04/07/2009	Recovery	<10	<1	194000	19200	33	4400	6520	135000	<10	<1	<1	<5	7.7	290	0.391	6	<2	6.2	<0.1
ASR-6	04/14/2009	Recovery	<10	<1	176000	14500	30	4100	5550	131000	<10	<1	<1	<5	3.5	280	0.14	5.7	<2	15.4	<0.1
ASR-6	04/21/2009	Recovery	<10	<1	219000	18100	71	3900	6620	142000	<10	<1	<1	<5	3.6	310	0.144	4.9	<2	5.1	<0.1
ASR-6	04/28/2009	Recovery	<10	<1	251000	21000	29	4100	7170	144000	<10	<1	<1	<5	3.6	310	0.13	6.6	5.2	11.8	<0.1
ASR-6	05/12/2009	Recovery	<10	<1	346000	30300	37	4100	9230	163000	<10	<1	<1	<5	3.6	350	0.21	5.5	<2	5.8	<0.1
ASR-6	05/19/2009	Recovery	<10	<1	356000	32800	30	3900	10100	164000	<10	<1	<1	<5	3.6	320	0.175	16	<2	<5	<0.1
ASR-6	05/04/2010	Recovery	<1	<0.1	25700	4220	5	4700	3000	65500	2	1	0.3	0.6	31.3	40	0.942	6.7	1	9	0.01
ASR-6	05/11/2010	Recovery	<1	<0.1	23300	4050	4	3800	2860	68700	1	0.9	0.2	<0.5	8.4	<10	0.287	4.1	2	11	0.01
ASR-6	05/18/2010	Recovery	<1	<0.1	31200	4630	3	4200	2900	81600	2	0.9	0.2	<0.5	6.1	<10	0.189	4.3	2	12.4	0.01
ASR-6	05/25/2010	Recovery	1	<0.1	50700	5060	3	4300	2970	84300	2	1	0.2	0.5	4.9	<10	0.127	4.3	2.4	13.9	0.01
ASR-6	06/01/2010	Recovery	1	<0.1	66500	5590	3	4300	3130	87900	2	1	0.3	0.8	4.1	<10	0.089	4.4	0.7	8.2	0.01
ASR-6	06/08/2010	Recovery	2	<0.1	83600	6600	3	4500	3500	91400	2	1.1	0.4	0.8	3.9	<10	0.033	6.1	10.9	22.1	0.01
ASR-6	06/15/2010	Recovery	1	<0.1	56500	6760	2	4800	3210	85700	1	0.8	0.1	<0.5	3.1	150	0.236	4.8	0.9	1.8	0.01
ASR-6	06/22/2010	Recovery	2	<0.1	101000	8080	<2	4400	4250	112000	1	0.8	<0.1	<0.5	3.5	270	0.131	9.3	2.3	2.1	0.01
ASR-6	03/15/2011	Recovery	2	<0.1	125000	11900	<2	5100	5320	105000	1	0.9	<0.1	<0.5	4.1	360	0.146	4.5	0.6	3.6	0.01
ASR-6	03/29/2011	Recovery	1	<0.1	36000	5500	2	4900	2490	79600	1	0.8	0.2	<0.5	4.6	130	0.357	4.5	1.5	3.7	0.01
ASR-7	03/10/2009	Recovery	<10	<1	42100	7950	31	4500	2330	106000	<10	<1	<1	<5	44.4	180	2.09	7.5	3.8	22.2	<0.1
ASR-7	03/23/2009	Recovery	<10	<1	128000	13800	31	4400	4890	127000	<10	<1	<1	<5	9.5	250	0.477	5.6	<2	<5	<0.1
ASR-7	03/31/2009	Recovery	<10	<1	170000	17200	32	4300	6040	138000	<10	<1	<1	<5	8.5	300	0.412	6.2	<2	<5	<0.1
ASR-7	04/07/2009	Recovery	12	<1	183000	18200	33	4500	6160	131000	<10	<1	<1	<5	7.5	290	0.376	6.2	<2	5.4	<0.1
ASR-7	04/14/2009	Recovery	<10	<1	215000	22800	<20	3900	6930	134000	<10	<1	<1	8.4	43	260	0.329	7.8	<2	6.5	<0.1
ASR-7	04/21/2009	Recovery	<10	<1	230000	23900	<20	3800	7400	139000	<10	<1	<1	8.2	36.8	260	0.353	7	<2	5.6	<0.1
ASR-7	04/28/2009	Recovery	<10	<1	247000	25800	29	3900	7540	140000	<10	<1	<1	6.6	34.8	330	0.329	8.8	<2	8.6	<0.1
ASR-7	05/12/2009	Recovery	<10	<1	283000	29300	<20	3800	8040	146000	<10	<1	<1	<5	27.9	250	0.239	7.5	<2	6.5	<0.1
ASR-7	05/17/2009	Recovery	<10	<1	310000	32200	<20	3800	8770	151000	<10	<1	<1	5.2	30	290	0.298	7.4	<2	10.3	<0.1
ASR-7	05/04/2010	Recovery	<1	<0.1	22300	4300	5	4400	2930	67500	2	1.2	0.3	0.6	41	110	1.15	5.6	4.9	23	0.01
ASR-7	05/11/2010	Recovery	1	<0.1	68700	6390	4	4500	3490	85600	2	1.2	0.5	1	11.9	<10	0.426	5.3	1.6	13.2	0.01
ASR-7	05/18/2010	Recovery	2	<0.1	88100	8140	4	4500	3720	89700	2	1.1	0.4	0.8	8.2	<10	0.267	4.8	4.7	11.1	0.01

REPORT OF INVESTIGATION NO. 112

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-4	03/15/2011	Recovery	0.02	13.2	0.8	374	2.76	380	<0.003	<0.01	<0.005	87.6	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.07	<0.1	5
ASR-4	03/29/2011	Recovery	0.03	19.5	1	823	4.23	470	0.003	<0.01	<0.005	153	<0.01	<0.01	<0.2	0.36	<0.001	<0.1	0.09	<0.1	4
ASR-6	03/10/2009	Recovery	<0.1	8.87	<2	306	4.64	427	0.053	<0.1	<0.05	364	<0.1	<0.1	<2	1.23	<0.01	<1	0.22	<1	<10
ASR-6	03/23/2009	Recovery	<0.1	9.13	<2	508	4.57	436	0.054	<0.1	<0.05	286	<0.1	<0.1	<2	0.97	<0.01	<1	<0.1	<1	<10
ASR-6	03/31/2009	Recovery	<0.1	9.56	<2	669	4.67	479	0.054	<0.1	<0.05	253	<0.1	<0.1	<2	0.85	<0.01	<1	0.11	<1	<10
ASR-6	04/07/2009	Recovery	<0.1	19.3	<2	1150	5.1	987	0.055	<0.1	<0.05	414	<0.1	<0.1	<2	1.4	<0.01	<1	0.38	<1	<10
ASR-6	04/14/2009	Recovery	<0.1	10.8	<2	1080	4.97	722	0.048	0.16	<0.05	196	<0.1	<0.1	<2	0.76	<0.01	<1	<0.1	<1	<10
ASR-6	04/21/2009	Recovery	<0.1	11.7	<2	1350	5.14	862	0.186	<0.1	<0.05	168	<0.1	<0.1	<2	0.65	<0.01	<1	<0.1	<1	<10
ASR-6	04/28/2009	Recovery	<0.1	11.4	<2	1570	5.23	983	0.049	<0.1	<0.05	140	<0.1	<0.1	<2	0.5	<0.01	<1	<0.1	<1	<10
ASR-6	05/12/2009	Recovery	<0.1	14.1	<2	2140	5.44	1270	0.056	<0.1	<0.05	116	<0.1	<0.1	<2	0.46	<0.01	<1	0.11	<1	<10
ASR-6	05/19/2009	Recovery	<0.1	13.9	<2	2300	5.27	1350	0.053	<0.1	<0.05	102	<0.1	<0.1	<2	0.37	<0.01	<1	0.12	<1	<10
ASR-6	05/04/2010	Recovery	0.06	10.3	0.6	180	4.73	230	0.007	0.01	<0.005	65.9	<0.01	0.02	<0.2	0.32	<0.001	<0.1	0.12	<0.1	774
ASR-6	05/11/2010	Recovery	0.03	9.76	0.9	155	3.99	230	0.004	0.01	<0.005	127	<0.01	0.09	<0.2	0.62	<0.001	<0.1	0.23	<0.1	35
ASR-6	05/18/2010	Recovery	0.03	10.1	0.8	193	4.39	260	0.004	0.01	<0.005	312	<0.01	0.11	<0.2	1.41	<0.001	<0.1	0.26	<0.1	12
ASR-6	05/25/2010	Recovery	0.03	10.8	1.1	253	4.3	290	0.004	0.01	<0.005	403	<0.01	0.19	<0.2	1.95	<0.001	<0.1	0.25	<0.1	7
ASR-6	06/01/2010	Recovery	0.03	11.7	1.4	336	4.35	310	0.004	0.01	<0.005	367	<0.01	0.19	<0.2	1.74	<0.001	<0.1	0.22	<0.1	6
ASR-6	06/08/2010	Recovery	0.03	13.2	1.4	460	4.53	350	0.004	0.01	<0.005	317	<0.01	0.07	<0.2	1.47	<0.001	0.1	0.21	<0.1	6
ASR-6	06/15/2010	Recovery	0.02	11.6	0.5	316	3.69	310	<0.003	<0.01	<0.005	172	<0.01	<0.01	<0.2	0.37	<0.001	<0.1	0.26	<0.1	1
ASR-6	06/22/2010	Recovery	0.03	12.7	<0.2	645	4.68	460	0.003	0.01	<0.005	257	<0.01	<0.01	<0.2	0.59	<0.001	<0.1	0.17	<0.1	5
ASR-6	03/15/2011	Recovery	0.03	13.9	1.2	842	4.92	490	0.003	<0.01	<0.005	226	<0.01	<0.01	<0.2	0.49	<0.001	<0.1	0.15	<0.1	2
ASR-6	03/29/2011	Recovery	0.03	11.1	0.7	160	3.15	280	0.003	<0.01	<0.005	84.8	<0.01	<0.01	<0.2	0.18	<0.001	<0.1	0.26	<0.1	2
ASR-7	03/10/2009	Recovery	<0.1	15.9	<2	155	4.23	703	0.051	<0.1	<0.05	64.8	<0.1	<0.1	<2	0.29	<0.01	<1	0.94	<1	171
ASR-7	03/23/2009	Recovery	<0.1	14.5	<2	707	4.78	702	0.055	<0.1	<0.05	290	<0.1	<0.1	<2	0.96	<0.01	<1	0.53	<1	<10
ASR-7	03/31/2009	Recovery	<0.1	17.8	<2	991	5.19	885	0.053	<0.1	<0.05	354	<0.1	<0.1	<2	1.29	<0.01	<1	0.49	<1	<10
ASR-7	04/07/2009	Recovery	<0.1	17.9	<2	1080	4.93	939	0.052	<0.1	<0.05	395	<0.1	<0.1	<2	1.27	<0.01	<1	0.35	<1	<10
ASR-7	04/14/2009	Recovery	<0.1	19.9	<2	1190	4.79	1040	<0.03	<0.1	0.142	444	<0.1	<0.1	<2	1.03	<0.01	<1	0.33	<1	<10
ASR-7	04/21/2009	Recovery	<0.1	19.9	<2	1280	4.87	1110	<0.03	0.12	0.112	438	<0.1	<0.1	<2	1.02	<0.01	<1	0.31	<1	<10
ASR-7	04/28/2009	Recovery	<0.1	20.3	<2	1400	4.76	1210	<0.03	<0.1	0.073	397	<0.1	<0.1	<2	1.06	<0.01	<1	0.3	<1	<10
ASR-7	05/12/2009	Recovery	<0.1	21.5	<2	1560	4.76	1380	<0.03	<0.1	0.073	280	<0.1	<0.1	<2	0.63	<0.01	<1	0.29	<1	<10
ASR-7	05/17/2009	Recovery	<0.1	22.4	<2	1770	4.84	1510	<0.03	<0.1	0.062	243	<0.1	<0.1	<2	0.59	<0.01	<1	0.3	<1	<10
ASR-7	05/04/2010	Recovery	0.05	18.2	0.6	183	4.68	240	0.005	0.01	<0.005	87.8	<0.01	0.04	<0.2	0.44	<0.001	<0.1	0.83	<0.1	814
ASR-7	05/11/2010	Recovery	0.03	21.2	2.3	368	4.7	310	0.005	0.01	<0.005	239	<0.01	0.12	<0.2	1.18	<0.001	<0.1	0.33	<0.1	36
ASR-7	05/18/2010	Recovery	0.04	21.1	3	459	4.48	350	0.006	0.01	<0.005	335	<0.01	0.11	<0.2	1.53	<0.001	<0.1	0.34	<0.1	16

FLORIDA GEOLOGICAL SURVEY

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-4	03/15/2011	Recovery	0.066	12.4	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-4	03/29/2011	Recovery	0.105	18.3	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	03/10/2009	Recovery	0.116	15.9	0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	03/23/2009	Recovery	0.143	16.2	0.021	0.024	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	03/31/2009	Recovery	0.158	16.9	0.019	0.017	<0.01	<0.01	0.013	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	04/07/2009	Recovery	0.152	21.8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	04/14/2009	Recovery	0.173	18.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	04/21/2009	Recovery	0.19	19.7	0.012	0.019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	04/28/2009	Recovery	0.197	20.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	05/12/2009	Recovery	0.212	23.1	0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	05/19/2009	Recovery	0.218	23.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-6	05/04/2010	Recovery	0.25	15.3	0.003	0.003	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	05/11/2010	Recovery	0.07	13.4	0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	05/18/2010	Recovery	0.08	14.6	0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	05/25/2010	Recovery	0.087	15.2	0.001	0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	06/01/2010	Recovery	0.107	15.4	0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	06/08/2010	Recovery	0.126	15.7	0.002	0.002	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	06/15/2010	Recovery	0.068	14.4	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	06/22/2010	Recovery	0.131	16.7	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	03/15/2011	Recovery	0.146	17.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-6	03/29/2011	Recovery	0.061	13.6	0.002	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	03/10/2009	Recovery	0.213	16	0.012	0.017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	03/23/2009	Recovery	0.144	19	<0.01	<0.01	<0.01	<0.01	<0.01	0.018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	03/31/2009	Recovery	0.165	21.6	<0.01	<0.01	<0.01	<0.01	<0.01	0.029	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	04/07/2009	Recovery	0.146	20.9	0.024	0.024	<0.01	<0.01	<0.01	0.042	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	04/14/2009	Recovery	0.128	23.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	04/21/2009	Recovery	0.126	23.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	04/28/2009	Recovery	0.421	24.2	<0.01	0.023	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	05/12/2009	Recovery	0.132	26.2	<0.01	0.019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	05/17/2009	Recovery	0.146	25.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
ASR-7	05/04/2010	Recovery	0.24	15.7	0.002	0.002	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	05/11/2010	Recovery	0.107	18.1	0.002	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	05/18/2010	Recovery	0.124	18.2	0.002	0.001	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-4	03/15/2011	Recovery	<0.001	<0.001	<0.02	0.032	<0.002	<0.3	<0.002	<0.2	0.014	0.19	<0.3	<0.001	0.275
ASR-4	03/29/2011	Recovery	<0.001	<0.001	<0.02	0.033	<0.002	<0.3	<0.002	<0.2	0.032	0.06	<0.3	<0.001	0.402
ASR-6	03/10/2009	Recovery	<0.01	<0.01	<0.2	0.101	<0.02	<3	<0.02	<2	0.041	0.17	<3	<0.01	0.835
ASR-6	03/23/2009	Recovery	<0.01	<0.01	<0.2	0.091	<0.02	<3	<0.02	<2	0.055	0.22	<3	<0.01	0.869
ASR-6	03/31/2009	Recovery	<0.01	<0.01	<0.2	0.067	<0.02	<3	<0.02	<2	0.062	<0.1	<3	<0.01	0.922
ASR-6	04/07/2009	Recovery	<0.01	<0.01	<0.2	0.257	<0.02	<3	<0.02	<2	0.233	<0.1	<3	<0.01	4.3
ASR-6	04/14/2009	Recovery	<0.01	<0.01	<0.2	0.048	<0.02	<3	<0.02	<2	0.092	0.32	<3	<0.01	1.24
ASR-6	04/21/2009	Recovery	<0.01	<0.01	<0.2	0.046	<0.02	<3	<0.02	<2	0.125	0.13	<3	<0.01	1.48
ASR-6	04/28/2009	Recovery	<0.01	<0.01	<0.2	0.041	<0.02	<3	<0.02	<2	0.152	1.13	<3	<0.01	1.74
ASR-6	05/12/2009	Recovery	<0.01	<0.01	<0.2	0.035	<0.02	<3	<0.02	<2	0.185	0.14	<3	<0.01	2.52
ASR-6	05/19/2009	Recovery	<0.01	<0.01	<0.2	0.031	<0.02	<3	<0.02	<2	0.223	0.71	<3	<0.01	2.81
ASR-6	05/04/2010	Recovery	<0.001	<0.001	<0.02	0.032	<0.002	<0.3	<0.002	<0.2	0.01	0.19	<0.3	<0.001	0.14
ASR-6	05/11/2010	Recovery	<0.001	<0.001	<0.02	0.065	<0.002	<0.3	<0.002	<0.2	0.019	0.16	<0.3	<0.001	0.302
ASR-6	05/18/2010	Recovery	<0.001	<0.001	<0.02	0.087	<0.002	<0.3	<0.002	<0.2	0.031	0.52	<0.3	<0.001	0.41
ASR-6	05/25/2010	Recovery	<0.001	<0.001	<0.02	0.091	<0.002	<0.3	<0.002	<0.2	0.039	0.22	<0.3	<0.001	0.453
ASR-6	06/01/2010	Recovery	<0.001	<0.001	<0.02	0.081	<0.002	<0.3	<0.002	<0.2	0.048	0.1	<0.3	<0.001	0.468
ASR-6	06/08/2010	Recovery	<0.001	<0.001	<0.02	0.073	<0.002	<0.3	<0.002	<0.2	0.057	1.6	<0.3	<0.001	0.491
ASR-6	06/15/2010	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	0.087	0.03	<0.3	<0.001	0.458
ASR-6	06/22/2010	Recovery	<0.001	<0.001	<0.02	0.054	<0.002	<0.3	<0.002	<0.2	0.062	0.59	<0.3	<0.001	0.49
ASR-6	03/15/2011	Recovery	<0.001	<0.001	<0.02	0.047	<0.002	<0.3	<0.002	<0.2	0.059	0.03	<0.3	<0.001	0.588
ASR-6	03/29/2011	Recovery	<0.001	<0.001	<0.02	0.045	<0.002	<0.3	<0.002	<0.2	0.045	0.05	<0.3	<0.001	0.343
ASR-7	03/10/2009	Recovery	<0.01	<0.01	<0.2	0.07	<0.02	<3	<0.02	<2	0.117	0.35	<3	<0.01	1.06
ASR-7	03/23/2009	Recovery	<0.01	<0.01	<0.2	0.178	<0.02	<3	<0.02	<2	0.066	0.14	<3	<0.01	2.35
ASR-7	03/31/2009	Recovery	<0.01	<0.01	<0.2	0.217	<0.02	<3	<0.02	<2	0.175	0.15	<3	<0.01	3.58
ASR-7	04/07/2009	Recovery	<0.01	<0.01	<0.2	0.252	<0.02	<3	<0.02	<2	0.233	0.19	<3	<0.01	4.28
ASR-7	04/14/2009	Recovery	0.018	0.023	<0.2	0.256	<0.02	<3	0.095	<2	0.279	0.13	<3	<0.01	4.53
ASR-7	04/21/2009	Recovery	0.011	0.024	<0.2	0.237	<0.02	<3	0.084	<2	0.355	0.12	<3	<0.01	5.21
ASR-7	04/28/2009	Recovery	<0.01	0.017	0.21	0.215	<0.02	<3	0.073	<2	0.387	0.26	<3	<0.01	5.89
ASR-7	05/12/2009	Recovery	<0.01	0.013	<0.2	0.134	<0.02	<3	0.067	<2	0.454	0.17	<3	<0.01	7.37
ASR-7	05/17/2009	Recovery	<0.01	0.014	<0.2	0.111	<0.02	<3	0.08	<2	0.492	0.24	<3	<0.01	8.21
ASR-7	05/04/2010	Recovery	<0.001	<0.001	<0.02	0.063	<0.002	<0.3	<0.002	<0.2	0.02	0.7	<0.3	<0.001	0.469
ASR-7	05/11/2010	Recovery	<0.001	<0.001	<0.02	0.163	<0.002	<0.3	<0.002	<0.2	0.054	0.06	<0.3	<0.001	0.856
ASR-7	05/18/2010	Recovery	<0.001	<0.001	<0.02	0.188	<0.002	<0.3	<0.002	<0.2	0.036	0.18	<0.3	<0.001	0.973

FLORIDA GEOLOGICAL SURVEY

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-7	05/25/2010	Recovery	2	<0.1	105000	9550	4	4500	4040	89400	2	1.1	0.5	1	6.8	<10	0.177	4.5	1.5	10.6	0.01
ASR-7	06/01/2010	Recovery	2	<0.1	117000	10400	4	4500	4260	91400	2	1.2	0.5	1.2	6.6	30	0.168	4.1	3.5	9.9	0.01
ASR-7	06/08/2010	Recovery	2	<0.1	117000	11400	3	4500	4430	92700	2	1.1	0.6	1.3	6.2	20	0.137	4.1	1.8	7	0.01
ASR-7	06/15/2010	Recovery	2	<0.1	130000	15000	6	5000	5730	102000	1	1	<0.1	<0.5	6.7	360	0.288	5.9	5.2	17.1	0.01
ASR-7	06/22/2010	Recovery	3	<0.1	140000	16600	2	5100	6190	110000	1	1.1	<0.1	<0.5	6.5	380	0.278	4.7	2.4	6.2	0.01
ASR-7	03/15/2011	Recovery	2	<0.1	66500	7790	3	4800	3350	86900	1	0.8	<0.1	<0.5	6.3	120	0.518	5.3	0.8	4.1	0.01
ASR-7	03/29/2011	Recovery	2	<0.1	116000	13800	4	5000	5070	96400	1	1	<0.1	<0.5	5.4	280	0.359	4.8	2.1	16.4	0.01
SZMW-1	03/10/2009	Recovery	<10	<1	76700	9860	<20	3800	3660	98200	<10	<1	13.5	5.6	43.2	450	0.354	5.8	<2	6.2	<0.1
SZMW-1	03/23/2009	Recovery	<10	<1	76700	8550	<20	<2000	3570	52800	<10	<1	<1	6	140	1960	<0.05	<3	<2	<5	<0.1
SZMW-1	04/07/2009	Recovery	<10	<1	130000	14700	<20	3400	5020	104000	<10	<1	10.8	7.9	55.3	620	0.359	5.4	<2	6.4	<0.1
SZMW-1	04/21/2009	Recovery	<10	<1	135000	15600	<20	3400	5090	105000	<10	<1	9.8	6.1	49.1	640	0.361	5.1	<2	8.1	<0.1
SZMW-1	05/12/2009	Recovery	<10	<1	132000	15100	<20	<2000	5140	66100	<10	<1	<1	7	164	2760	<0.05	<3	<2	<5	<0.1
SZMW-1	05/26/2009	Recovery	<10	<1	103000	11400	<20	3200	4290	97700	<10	<1	8.8	<5	43.9	710	0.286	5.4	<2	<5	<0.1
SZMW-1	05/04/2010	Recovery	1	<0.1	49100	6010	<2	4300	2940	75000	2	1.1	4.6	0.8	19.5	150	0.173	3	1.2	9.4	0.02
SZMW-1	05/18/2010	Recovery	1	<0.1	64500	7190	<2	4800	2940	80300	2	1.2	7.9	1.2	25.5	580	0.187	3.3	2.8	9.1	0.02
SZMW-1	06/01/2010	Recovery	2	<0.1	91800	8450	<2	5000	3320	83400	2	1.4	11	1.2	25.5	1060	0.224	4	2	9.1	0.02
SZMW-1	06/15/2010	Recovery	2	<0.1	102000	12700	<2	5500	4680	89700	1	1.1	6.5	<0.5	26.6	720	0.361	3.8	2.2	6.5	0.02
SZMW-1	06/29/2010	Storage	2	<0.1	97700	10700	<2	5000	4170	89300	1	1	5.3	<0.5	26.9	950	0.352	4	2.1	7.7	0.02
SZMW-1	07/06/2010	Injection	3	<0.1	115000	10700	<2	4800	4630	100000	1	1	4.7	<0.5	19.4	640	0.381	4	0.7	1.4	0.02
SZMW-1	08/10/2010	Injection	<1	<0.1	34700	5100	2	4600	2690	70200	1	0.9	17.2	0.6	15.8	890	0.049	3.3	3.7	8.7	0.03
SZMW-1	03/15/2011	Recovery	1	<0.1	46300	9200	13	2400	3140	40200	<1	0.5	0.6	<0.5	52	310	0.039	2.3	201	17.8	0.01
SZMW-1	03/29/2011	Recovery	2	<0.1	54500	7650	<2	4900	3260	80700	1	1	4.7	<0.5	25.8	400	0.271	3.3	10.9	7.2	0.02
SZMW-4	03/10/2009	Recovery	<10	<1	31600	6540	<20	3300	1990	84100	<10	<1	<1	5.3	23.3	<100	<0.05	<3	<2	<5	<0.1
SZMW-4	03/23/2009	Recovery	<10	<1	313000	34500	<20	5100	8860	138000	<10	3.1	1.3	<5	10.5	710	<0.05	<3	<2	<5	<0.1
SZMW-4	04/07/2009	Recovery	19	<1	385000	41700	<20	5100	10600	159000	<10	3	1.4	<5	6.6	660	<0.05	<3	<2	6.4	<0.1
SZMW-4	04/21/2009	Recovery	12	<1	419000	44500	<20	5000	11400	163000	<10	3.1	1.2	<5	5.1	530	<0.05	<3	<2	<5	<0.1
SZMW-4	05/12/2009	Recovery	<10	<1	322000	35600	<20	5300	9090	140000	<10	<1	1.4	<5	6.9	840	0.068	<3	<2	<5	<0.1
SZMW-4	05/26/2009	Recovery	<10	<1	540000	57000	<20	5000	13900	187000	<10	1.7	1.1	<5	6.9	350	<0.05	<3	<2	<5	<0.1
SZMW-4	05/04/2010	Recovery	2	<0.1	54600	7450	<2	5400	2190	71200	2	1.6	1.1	1.5	7.2	500	<0.005	0.5	0.3	3.2	0.01
SZMW-4	05/18/2010	Recovery	3	<0.1	187000	18300	<2	5100	5330	93800	2	1.6	1.3	1.9	7.8	400	<0.005	0.6	1.3	4.2	0.02
SZMW-4	06/01/2010	Recovery	4	<0.1	245000	19700	<2	5000	6490	103000	2	1.7	1.3	1.6	8.2	290	<0.005	0.7	1.8	3.1	0.02
SZMW-4	06/15/2010	Recovery	5	<0.1	301000	30100	<2	5600	9170	132000	2	1.5	0.4	<0.5	9.4	570	0.013	0.6	1.9	3.1	0.01
SZMW-4	06/29/2010	Storage	5	<0.1	339000	31600	<2	5600	9640	140000	1	1.4	0.5	<0.5	10.2	580	0.013	0.6	2.7	4.8	0.02

REPORT OF INVESTIGATION NO. 112

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-7	05/25/2010	Recovery	0.03	22.4	2.3	571	4.47	430	0.006	0.01	<0.005	399	<0.01	0.11	<0.2	1.87	<0.001	<0.1	0.29	<0.1	11
ASR-7	06/01/2010	Recovery	0.03	23.9	2	660	4.48	490	0.005	0.04	<0.005	459	<0.01	0.16	<0.2	2.15	<0.001	<0.1	0.22	<0.1	9
ASR-7	06/08/2010	Recovery	0.03	25.3	2.1	743	4.5	540	0.006	0.01	<0.005	504	0.01	0.05	<0.2	2	<0.001	<0.1	0.18	<0.1	9
ASR-7	06/15/2010	Recovery	0.03	25.6	1.4	838	4.68	640	0.005	0.02	<0.005	496	0.01	<0.01	<0.2	3.13	<0.001	0.1	0.18	<0.1	5
ASR-7	06/22/2010	Recovery	0.03	26.6	1.3	974	4.83	770	0.004	0.01	<0.005	514	0.01	<0.01	<0.2	1.05	<0.001	<0.1	0.15	<0.1	3
ASR-7	03/15/2011	Recovery	0.04	21.4	3	397	4	350	0.004	0.01	<0.005	142	<0.01	<0.01	<0.2	0.31	<0.001	<0.1	0.33	<0.1	10
ASR-7	03/29/2011	Recovery	0.03	20.2	4.4	722	3.95	570	0.004	0.01	<0.005	170	<0.01	<0.01	<0.2	0.55	<0.001	<0.1	0.34	<0.1	3
SZMW-1	03/10/2009	Recovery	<0.1	7.25	<2	398	3.66	343	<0.03	<0.1	<0.05	75.3	<0.1	<0.1	<2	0.15	<0.01	<1	1.42	<1	<10
SZMW-1	03/23/2009	Recovery	<0.1	1.77	<2	413	3.85	298	<0.03	<0.1	0.055	58.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-1	04/07/2009	Recovery	<0.1	8.39	<2	728	3.92	417	<0.03	<0.1	<0.05	59.9	<0.1	<0.1	<2	0.13	<0.01	<1	1.1	<1	<10
SZMW-1	04/21/2009	Recovery	<0.1	8.88	<2	746	3.89	431	<0.03	<0.1	<0.05	61	<0.1	<0.1	<2	0.11	<0.01	<1	1.03	<1	<10
SZMW-1	05/12/2009	Recovery	<0.1	2.58	<2	717	4.36	395	<0.03	0.1	<0.05	57.6	<0.1	<0.1	<2	0.11	<0.01	<1	<0.1	<1	<10
SZMW-1	05/26/2009	Recovery	<0.1	9.39	<2	497	3.75	362	<0.03	<0.1	<0.05	75.8	<0.1	<0.1	<2	<0.1	<0.01	<1	0.79	<1	<10
SZMW-1	05/04/2010	Recovery	0.02	11.7	1	236	3.76	270	0.003	0.01	<0.005	114	<0.01	0.06	<0.2	0.57	<0.001	<0.1	1.22	<0.1	5
SZMW-1	05/18/2010	Recovery	0.02	11.2	1.4	342	3.72	280	0.003	0.01	<0.005	82.8	<0.01	0.04	<0.2	0.4	<0.001	<0.1	1.2	<0.1	12
SZMW-1	06/01/2010	Recovery	0.03	11.3	1.4	521	3.88	310	0.003	0.01	<0.005	62.4	<0.01	0.03	<0.2	0.31	<0.001	<0.1	1.08	<0.1	16
SZMW-1	06/15/2010	Recovery	0.02	11.9	1	634	3.93	350	<0.003	0.01	<0.005	63.8	<0.01	<0.01	<0.2	0.14	<0.001	<0.1	0.81	<0.1	4
SZMW-1	06/29/2010	Storage	0.02	14.4	1.2	587	3.75	330	<0.003	0.01	<0.005	70.5	<0.01	<0.01	<0.2	0.15	<0.001	0.1	0.49	<0.1	4
SZMW-1	07/06/2010	Injection	0.02	12.6	<0.2	837	4.22	390	<0.003	0.01	<0.005	59.7	<0.01	<0.01	<0.2	0.14	<0.001	<0.1	0.69	<0.1	14
SZMW-1	08/10/2010	Injection	0.06	7.47	12	130	3.18	220	<0.003	0.01	<0.005	27.3	<0.01	<0.01	<0.2	0.06	<0.001	0.1	1.06	<0.1	<1
SZMW-1	03/15/2011	Recovery	0.02	3.84	0.4	244	3.72	260	<0.003	0.01	<0.005	39.7	<0.01	<0.01	<0.2	0.1	<0.001	2.1	0.21	<0.1	3
SZMW-1	03/29/2011	Recovery	0.03	10.7	0.9	294	3.49	270	<0.003	0.01	0.005	58.3	<0.01	<0.01	<0.2	0.13	<0.001	0.4	0.59	<0.1	4
SZMW-4	03/10/2009	Recovery	<0.1	<0.3	<2	99	2.45	293	<0.03	<0.1	<0.05	137	<0.1	<0.1	<2	0.28	<0.01	<1	<0.1	<1	<10
SZMW-4	03/23/2009	Recovery	<0.1	2.62	<2	2020	4.3	1200	<0.03	<0.1	<0.05	29.1	<0.1	<0.1	<2	0.18	<0.01	<1	<0.1	<1	<10
SZMW-4	04/07/2009	Recovery	<0.1	2.22	<2	2520	4.71	1460	0.039	<0.1	<0.05	28.3	<0.1	<0.1	<2	0.11	<0.01	<1	<0.1	<1	<10
SZMW-4	04/21/2009	Recovery	<0.1	2.05	2.4	2710	4.8	1540	<0.03	<0.1	<0.05	25.8	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-4	05/12/2009	Recovery	<0.1	2.29	2.5	2130	4.19	1220	<0.03	<0.1	<0.05	20.5	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-4	05/26/2009	Recovery	<0.1	2	4.4	3470	5.84	1920	<0.03	<0.1	<0.05	24.2	<0.1	<0.1	<2	<0.1	<0.01	<1	<0.1	<1	<10
SZMW-4	05/04/2010	Recovery	0.02	2.87	1.1	290	2.18	300	0.021	0.01	<0.005	37.9	<0.01	0.01	<0.2	0.17	<0.001	<0.1	0.01	<0.1	19
SZMW-4	05/18/2010	Recovery	0.03	3.02	3.1	1190	3.34	690	0.019	0.01	<0.005	32.3	<0.01	0.02	<0.2	0.16	<0.001	<0.1	0.01	<0.1	14
SZMW-4	06/01/2010	Recovery	0.03	2.56	4	1550	3.77	800	0.019	0.01	<0.005	30.9	<0.01	0.02	<0.2	0.14	<0.001	<0.1	0.01	<0.1	14
SZMW-4	06/15/2010	Recovery	0.03	2.72	4.9	1970	4.1	1150	0.018	0.02	<0.005	30.4	0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.01	<0.1	5
SZMW-4	06/29/2010	Storage	0.03	3.07	5.7	1980	4.29	1180	0.018	0.02	<0.005	29.8	0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.01	<0.1	5

FLORIDA GEOLOGICAL SURVEY

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-7	05/25/2010	Recovery	0.135	18.3	0.002	0.002	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	06/01/2010	Recovery	0.139	18.5	0.002	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	06/08/2010	Recovery	0.134	18.6	0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	06/15/2010	Recovery	0.125	19.6	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	06/22/2010	Recovery	0.121	20.1	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	03/15/2011	Recovery	0.084	17.2	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR-7	03/29/2011	Recovery	0.098	17.4	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/10/2009	Recovery	0.057	16.2	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	03/23/2009	Recovery	0.054	13.3	0.019	0.027	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	04/07/2009	Recovery	0.076	18.4	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	04/21/2009	Recovery	0.085	19	0.07	0.066	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	05/12/2009	Recovery	0.082	16.3	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	05/26/2009	Recovery	0.059	17.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-1	05/04/2010	Recovery	0.077	14	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/18/2010	Recovery	0.083	14.9	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/01/2010	Recovery	0.098	15.6	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/15/2010	Recovery	0.1	17.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/29/2010	Storage	0.094	16.7	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/06/2010	Injection	0.107	17.7	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/10/2010	Injection	0.067	11.1	0.002	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/15/2011	Recovery	0.075	13.3	0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/29/2011	Recovery	0.072	15.1	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-4	03/10/2009	Recovery	0.083	19.2	0.016	0.029	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-4	03/23/2009	Recovery	0.095	35.9	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-4	04/07/2009	Recovery	0.11	40.6	0.014	0.024	<0.01	0.051	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-4	04/21/2009	Recovery	0.117	43	<0.01	<0.01	<0.01	0.016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-4	05/12/2009	Recovery	0.092	35	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-4	05/26/2009	Recovery	0.141	50	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.011	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-4	05/04/2010	Recovery	0.055	15.4	0.006	0.007	0.001	0.006	0.001	0.001	0.002	<0.001	0.003	<0.001	0.001	<0.001	0.003	<0.001
SZMW-4	05/18/2010	Recovery	0.08	26.7	0.005	0.006	0.001	0.005	<0.001	0.002	0.002	<0.001	0.002	<0.001	0.001	<0.001	0.002	<0.001
SZMW-4	06/01/2010	Recovery	0.088	30.4	0.005	0.005	<0.001	0.006	<0.001	0.002	0.002	<0.001	0.002	<0.001	0.001	<0.001	0.001	<0.001
SZMW-4	06/15/2010	Recovery	0.093	34.3	0.005	0.006	<0.001	0.004	0.002	<0.001	0.002	<0.001	0.002	<0.001	0.001	<0.001	0.001	<0.001
SZMW-4	06/29/2010	Storage	0.092	35.9	0.005	0.007	0.001	0.007	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001

REPORT OF INVESTIGATION NO. 112

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR-7	05/25/2010	Recovery	<0.001	<0.001	<0.02	0.23	<0.002	<0.3	<0.002	<0.2	0.035	0.12	<0.3	<0.001	1.58
ASR-7	06/01/2010	Recovery	<0.001	<0.001	<0.02	0.256	<0.002	<0.3	<0.002	<0.2	0.037	0.12	<0.3	<0.001	1.92
ASR-7	06/08/2010	Recovery	<0.001	<0.001	<0.02	0.261	<0.002	<0.3	<0.002	<0.2	0.044	0.07	<0.3	<0.001	2.2
ASR-7	06/15/2010	Recovery	0.002	<0.001	<0.02	0.244	<0.002	<0.3	<0.002	<0.2	0.047	0.4	<0.3	<0.001	2.43
ASR-7	06/22/2010	Recovery	<0.001	<0.001	<0.02	0.242	<0.002	<0.3	<0.002	<0.2	0.065	0.05	<0.3	<0.001	2.81
ASR-7	03/15/2011	Recovery	<0.001	<0.001	<0.02	0.084	<0.002	<0.3	<0.002	<0.2	0.054	0.02	<0.3	<0.001	0.803
ASR-7	03/29/2011	Recovery	0.001	<0.001	<0.02	0.076	<0.002	<0.3	<0.002	<0.2	0.094	0.25	<0.3	0.005	2.12
SZMW-1	03/10/2009	Recovery	<0.01	0.014	<0.2	0.089	<0.02	<3	0.024	<2	0.295	<0.1	<3	<0.01	17.2
SZMW-1	03/23/2009	Recovery	<0.01	0.012	<0.2	0.068	<0.02	<3	0.026	<2	0.015	<0.1	<3	<0.01	1.41
SZMW-1	04/07/2009	Recovery	<0.01	0.011	0.2	0.077	<0.02	<3	0.03	<2	0.296	0.18	<3	<0.01	18.1
SZMW-1	04/21/2009	Recovery	<0.01	<0.01	<0.2	0.086	<0.02	<3	0.036	<2	0.249	0.21	<3	<0.01	17
SZMW-1	05/12/2009	Recovery	0.016	<0.01	<0.2	0.09	<0.02	<3	0.024	<2	0.023	<0.1	<3	<0.01	1.45
SZMW-1	05/26/2009	Recovery	<0.01	<0.01	<0.2	0.114	<0.02	<3	<0.02	<2	0.261	<0.1	<3	<0.01	17.8
SZMW-1	05/04/2010	Recovery	<0.001	<0.001	<0.02	0.135	<0.002	<0.3	<0.002	<0.2	0.234	0.01	<0.3	<0.001	15.5
SZMW-1	05/18/2010	Recovery	<0.001	<0.001	<0.02	0.087	<0.002	<0.3	<0.002	<0.2	0.303	0.09	<0.3	<0.001	17
SZMW-1	06/01/2010	Recovery	<0.001	<0.001	<0.02	0.06	<0.002	<0.3	<0.002	<0.2	0.454	0.03	<0.3	<0.001	18.3
SZMW-1	06/15/2010	Recovery	<0.001	<0.001	<0.02	0.066	<0.002	<0.3	<0.002	<0.2	0.292	0.08	<0.3	0.001	18.5
SZMW-1	06/29/2010	Storage	<0.001	<0.001	<0.02	0.046	<0.002	<0.3	<0.002	<0.2	0.261	0.21	<0.3	<0.001	15.3
SZMW-1	07/06/2010	Injection	<0.001	<0.001	<0.02	0.043	<0.002	<0.3	<0.002	<0.2	0.364	<0.01	<0.3	<0.001	19
SZMW-1	08/10/2010	Injection	<0.001	<0.001	<0.02	0.044	<0.002	<0.3	<0.002	<0.2	0.344	1.2	<0.3	<0.001	15.2
SZMW-1	03/15/2011	Recovery	<0.001	<0.001	<0.02	0.044	<0.002	<0.3	<0.002	<0.2	0.015	16.7	<0.3	<0.001	2.49
SZMW-1	03/29/2011	Recovery	<0.001	<0.001	<0.02	0.056	<0.002	<0.3	<0.002	<0.2	0.223	0.66	<0.3	<0.001	15.3
SZMW-4	03/10/2009	Recovery	<0.01	0.011	<0.2	0.018	<0.02	<3	<0.02	<2	<0.01	0.17	<3	<0.01	0.035
SZMW-4	03/23/2009	Recovery	<0.01	<0.01	<0.2	0.019	<0.02	<3	0.041	<2	<0.01	<0.1	<3	<0.01	2.5
SZMW-4	04/07/2009	Recovery	<0.01	<0.01	<0.2	0.016	<0.02	<3	0.036	<2	<0.01	0.18	<3	<0.01	2.2
SZMW-4	04/21/2009	Recovery	<0.01	<0.01	<0.2	0.014	<0.02	<3	0.044	<2	<0.01	<0.1	<3	<0.01	1.99
SZMW-4	05/12/2009	Recovery	<0.01	<0.01	<0.2	0.01	<0.02	<3	0.03	<2	<0.01	<0.1	<3	<0.01	2
SZMW-4	05/26/2009	Recovery	<0.01	<0.01	<0.2	0.016	<0.02	<3	0.044	<2	<0.01	<0.1	<3	<0.01	1.32
SZMW-4	05/04/2010	Recovery	<0.001	<0.001	<0.02	0.024	<0.002	<0.3	<0.002	<0.2	0.002	0.02	<0.3	<0.001	1.64
SZMW-4	05/18/2010	Recovery	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	0.004	0.01	<0.3	<0.001	2.12
SZMW-4	06/01/2010	Recovery	<0.001	<0.001	0.02	0.014	<0.002	<0.3	<0.002	<0.2	0.004	0.01	<0.3	<0.001	1.89
SZMW-4	06/15/2010	Recovery	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	0.001	0.01	<0.3	<0.001	1.65
SZMW-4	06/29/2010	Storage	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	0.003	0.04	<0.3	<0.001	1.54

FLORIDA GEOLOGICAL SURVEY

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-4	07/06/2010	Injection	2	<0.1	58900	10100	3	6100	2740	72600	2	1.3	1	0.5	7.1	410	0.018	0.6	18.8	5.2	0.01
SZMW-4	08/10/2010	Injection	2	<0.1	69000	9620	4	3900	3270	76300	<1	0.8	3.8	8.4	6.5	210	0.058	1	5.3	4.2	0.02
SZMW-4	03/15/2011	Recovery	1	<0.1	29200	6170	2	5000	1700	72900	1	1	0.8	<0.5	5.7	220	0.005	0.3	<0.2	0.6	0.01
SZMW-4	03/29/2011	Recovery	4	<0.1	216000	22900	2	5300	7230	113000	1	1.3	0.5	<0.5	8.6	400	<0.005	0.7	36.7	4.1	0.01
SZMW-5	03/10/2009	Recovery	<10	<1	224000	25800	<20	5000	6700	122000	<10	<1	1.7	<5	3.2	860	<0.05	<3	<2	8	<0.1
SZMW-5	03/23/2009	Recovery	<10	<1	30400	5630	<20	4300	3090	75000	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-5	04/07/2009	Recovery	<10	<1	20100	5370	<20	4900	850	71400	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-5	04/21/2009	Recovery	<10	<1	240000	20900	29	4300	6940	137000	<10	<1	<1	<5	4.1	280	0.09	4.5	<2	<5	<0.1
SZMW-5	05/12/2009	Recovery	<10	<1	15400	4960	<20	5100	1000	66500	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-5	05/26/2009	Recovery	<10	<1	13900	4740	<20	5200	670	63900	<10	<1	<1	<5	<1	<100	<0.05	<3	<2	<5	<0.1
SZMW-5	05/04/2010	Recovery	1	<0.1	27100	5580	<2	4200	2490	77100	1	1.2	0.6	1.2	2.3	<10	<0.005	<0.3	1	6.1	0.02
SZMW-5	05/18/2010	Recovery	1	<0.1	28100	5880	2	4400	2190	76300	2	1.2	0.6	1.2	2.4	<10	<0.005	0.4	1.3	7.3	0.02
SZMW-5	06/01/2010	Recovery	1	<0.1	26800	5570	<2	4400	1930	76200	2	1.2	0.5	0.8	2.2	<10	<0.005	<0.3	2.6	6.7	0.02
SZMW-5	06/15/2010	Recovery	2	<0.1	35600	6910	<2	5200	2030	77100	1	1	0.2	<0.5	2.3	<10	<0.005	<0.3	1.3	1.5	0.02
SZMW-5	06/29/2010	Storage	1	<0.1	27700	4890	<2	4400	1350	75500	1	1.2	0.3	<0.5	2	40	0.014	<0.3	0.9	1.8	<0.01
SZMW-5	07/06/2010	Injection	1	<0.1	28800	4950	<2	4500	1450	75400	2	1.2	0.3	<0.5	1.9	30	0.016	<0.3	12.7	1.3	0.01
SZMW-5	08/10/2010	Injection	1	<0.1	31300	5960	3	4400	2840	79900	1	1.2	0.3	<0.5	2.3	50	0.007	<0.3	3	3.1	0.01
SZMW-5	03/15/2011	Recovery	2	<0.1	33400	6020	5	4500	2650	79600	1	1.3	0.2	<0.5	3	70	0.035	3.8	4	56.2	0.02
SZMW-5	03/29/2011	Recovery	1	<0.1	15700	2930	<2	2600	1080	73700	<1	0.7	0.2	<0.5	1.4	30	0.005	<0.3	5.1	1.1	<0.01

REPORT OF INVESTIGATION NO. 112

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-4	07/06/2010	Injection	0.02	2.19	1.1	393	2	330	0.026	0.01	<0.005	14.7	<0.01	<0.01	<0.2	0.19	<0.001	0.7	0.02	<0.1	5
SZMW-4	08/10/2010	Injection	0.02	1.77	1.9	330	2.3	470	0.014	0.02	<0.005	15.7	<0.01	<0.01	<0.2	0.06	<0.001	0.2	0.11	<0.1	2
SZMW-4	03/15/2011	Recovery	0.02	1.25	0.4	163	1.65	270	0.007	0.02	<0.005	23.3	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.01	<0.1	7
SZMW-4	03/29/2011	Recovery	0.03	2.07	3.6	1520	3.66	910	0.011	0.02	<0.005	29	0.01	<0.01	<0.2	0.06	<0.001	1.3	0.03	<0.1	6
SZMW-5	03/10/2009	Recovery	<0.1	3.04	<2	1400	3.73	882	<0.03	<0.1	<0.05	31.9	<0.1	<0.1	<2	0.13	<0.01	<1	<0.1	<1	<10
SZMW-5	03/23/2009	Recovery	<0.1	<0.3	<2	135	6.3	399	<0.03	<0.1	<0.05	87.4	<0.1	<0.1	<2	0.31	<0.01	<1	<0.1	<1	<10
SZMW-5	04/07/2009	Recovery	<0.1	<0.3	<2	123	1.29	228	<0.03	<0.1	<0.05	58.5	<0.1	<0.1	<2	0.19	<0.01	<1	<0.1	<1	<10
SZMW-5	04/21/2009	Recovery	<0.1	23	<2	1540	5.23	908	0.052	<0.1	<0.05	225	<0.1	<0.1	<2	0.91	<0.01	<1	<0.1	<1	<10
SZMW-5	05/12/2009	Recovery	<0.1	<0.3	<2	88	2.22	233	<0.03	<0.1	<0.05	55.4	<0.1	<0.1	<2	0.14	<0.01	<1	<0.1	<1	<10
SZMW-5	05/26/2009	Recovery	<0.1	<0.3	<2	69	1.25	199	<0.03	<0.1	<0.05	51.1	<0.1	<0.1	<2	0.15	<0.01	<1	<0.1	<1	<10
SZMW-5	05/04/2010	Recovery	0.01	0.47	0.6	94	1.61	240	<0.003	0.01	<0.005	181	<0.01	0.09	<0.2	0.88	<0.001	<0.1	0.01	<0.1	1
SZMW-5	05/18/2010	Recovery	0.01	0.44	0.6	103	1.66	240	0.003	0.01	<0.005	143	<0.01	0.05	<0.2	0.66	<0.001	<0.1	0.01	<0.1	1
SZMW-5	06/01/2010	Recovery	0.01	0.35	0.6	114	1.62	240	<0.003	0.01	<0.005	118	<0.01	0.05	<0.2	0.56	<0.001	<0.1	0.01	<0.1	1
SZMW-5	06/15/2010	Recovery	0.01	0.25	0.2	142	1.68	250	<0.003	0.01	<0.005	102	<0.01	<0.01	<0.2	0.21	<0.001	<0.1	<0.01	<0.1	7
SZMW-5	06/29/2010	Storage	0.01	0.23	<0.2	151	1.28	240	0.003	<0.01	<0.005	71.6	0.01	<0.01	<0.2	0.18	<0.001	<0.1	0.01	<0.1	6
SZMW-5	07/06/2010	Injection	0.01	0.21	<0.2	150	1.36	240	<0.003	0.01	<0.005	75.1	0.01	<0.01	<0.2	0.16	<0.001	0.4	0.01	<0.1	8
SZMW-5	08/10/2010	Injection	0.02	0.6	<0.2	112	1.57	260	<0.003	0.01	<0.005	221	<0.01	<0.01	<0.2	0.46	<0.001	<0.1	0.01	<0.1	3
SZMW-5	03/15/2011	Recovery	0.02	0.45	<0.2	128	1.59	260	0.005	0.01	<0.005	184	<0.01	<0.01	<0.2	0.45	<0.001	<0.1	0.01	<0.1	2
SZMW-5	03/29/2011	Recovery	0.01	0.13	<0.2	68	1.07	143	<0.003	<0.01	<0.005	64	<0.01	<0.01	<0.2	0.14	<0.001	0.2	0.01	<0.1	3

FLORIDA GEOLOGICAL SURVEY

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-4	07/06/2010	Injection	0.046	15.5	0.009	0.01	0.002	0.007	0.001	<0.001	0.002	<0.001	0.003	<0.001	0.002	<0.001	0.002	<0.001
SZMW-4	08/10/2010	Injection	0.043	16	0.005	0.006	<0.001	0.005	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-4	03/15/2011	Recovery	0.04	13.7	0.003	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-4	03/29/2011	Recovery	0.08	30.1	0.003	0.004	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	03/10/2009	Recovery	0.076	30.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-5	03/23/2009	Recovery	0.23	27.7	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-5	04/07/2009	Recovery	0.042	16.1	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-5	04/21/2009	Recovery	0.19	20.6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-5	05/12/2009	Recovery	0.084	14.9	<0.01	<0.01	<0.01	0.015	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-5	05/26/2009	Recovery	0.04	12.5	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
SZMW-5	05/04/2010	Recovery	0.038	14.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	05/18/2010	Recovery	0.046	15.1	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	06/01/2010	Recovery	0.047	14.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	06/15/2010	Recovery	0.049	15.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	06/29/2010	Storage	0.046	13.7	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	07/06/2010	Injection	0.043	14.3	0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	08/10/2010	Injection	0.036	15.9	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	03/15/2011	Recovery	0.038	15.5	0.004	0.006	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-5	03/29/2011	Recovery	0.034	10.1	<0.001	<0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Rome Avenue ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-4	07/06/2010	Injection	<0.001	<0.001	<0.02	0.011	<0.002	<0.3	<0.002	<0.2	<0.001	1.6	<0.3	<0.001	1.05
SZMW-4	08/10/2010	Injection	<0.001	<0.001	0.02	0.015	<0.002	<0.3	<0.002	<0.2	0.041	1.1	<0.3	<0.001	4.83
SZMW-4	03/15/2011	Recovery	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.95
SZMW-4	03/29/2011	Recovery	0.001	<0.001	<0.02	0.009	<0.002	<0.3	<0.002	<0.2	<0.001	2.65	<0.3	<0.001	1.29
SZMW-5	03/10/2009	Recovery	<0.01	<0.01	<0.2	0.018	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	3.41
SZMW-5	03/23/2009	Recovery	<0.01	<0.01	0.22	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.023
SZMW-5	04/07/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	0.95	<3	<0.01	0.021
SZMW-5	04/21/2009	Recovery	<0.01	<0.01	<0.2	0.057	<0.02	<3	<0.02	<2	0.053	0.3	<3	<0.01	5
SZMW-5	05/12/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.021
SZMW-5	05/26/2009	Recovery	<0.01	<0.01	<0.2	<0.01	<0.02	<3	<0.02	<2	<0.01	<0.1	<3	<0.01	0.031
SZMW-5	05/04/2010	Recovery	<0.001	<0.001	0.02	0.01	<0.002	<0.3	0.004	<0.2	<0.001	0.03	<0.3	<0.001	0.021
SZMW-5	05/18/2010	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.028
SZMW-5	06/01/2010	Recovery	<0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.08	<0.3	<0.001	0.019
SZMW-5	06/15/2010	Recovery	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.029
SZMW-5	06/29/2010	Storage	<0.001	<0.001	<0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.024
SZMW-5	07/06/2010	Injection	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	1.3	<0.3	<0.001	0.017
SZMW-5	08/10/2010	Injection	<0.001	<0.001	<0.02	0.003	<0.002	<0.3	<0.002	<0.2	0.001	0.09	<0.3	<0.001	0.024
SZMW-5	03/15/2011	Recovery	<0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	0.001	0.46	<0.3	<0.001	0.061
SZMW-5	03/29/2011	Recovery	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	0.52	<0.3	<0.001	0.028

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	05/21/2009	Recovery	3	<0.1	88700	13900	<2	5100	2790	50800	1	2	0.5	<0.5	2.1	220	0.09	3	<0.2	<0.5	0.1
ASR	05/26/2009	Recovery	3	<0.1	99500	14900	<2	5200	3020	51500	1	1	0.2	<0.5	1.7	120	0.03	1	<0.2	<0.5	<0.01
ASR	05/29/2009	Recovery	3	<0.1	93000	15900	9	5200	3210	57900	1	1	0.2	<0.5	1.6	80	0.01	1	<0.2	<0.5	<0.01
ASR	06/22/2009	Storage	2	<0.1	21700	9070	27	4900	1930	54000	1	2	0.4	0.8	2.9	50	0.01	<0.3	0.3	0.8	<0.01
ASR	07/30/2009	Recovery	2	<0.1	51800	12700	4	5200	2220	55400	1	3	0.3	<0.5	7.8	580	0.08	2	0.4	<0.5	0.1
ASR	08/03/2009	Recovery	2	<0.1	56700	12600	<2	4900	2290	55800	1	2	0.3	<0.5	5.8	510	0.07	2	<0.2	<0.5	0.1
ASR	08/06/2009	Recovery	3	<0.1	72800	13700	<2	5100	2650	55700	1	2	0.4	<0.5	2.3	280	0.13	3	<0.2	0.6	<0.01
ASR	08/11/2009	Recovery	3	<0.1	85800	14400	<2	5000	2960	55100	1	2	0.2	<0.5	1.8	190	0.06	2	0.2	2.2	<0.01
ASR	08/13/2009	Recovery	3	<0.1	90400	15200	6	5100	3110	56700	1	1.5	0.3	<0.5	1.7	140	0.035	1	<0.2	<0.5	<0.01
ASR	01/25/2010	Injection	3	<0.1	97800	18800	13	5500	3460	61200	2	2.7	1.9	1.5	3.2	140	0.05	1	1	1	0.03
ASR	04/12/2010	Storage	2	<0.1	34100	10300	<2	5600	1950	49200	2	5.8	0.7	1.1	78.2	750	0.076	1.4	0.2	<0.5	0.04
ASR	04/19/2010	Storage	2	<0.1	32500	10800	2	5600	2030	48300	2	6.5	0.5	4.8	45.4	780	0.06	1.4	<0.2	18.5	0.04
ASR	04/27/2010	Storage	2	<0.1	33400	9370	<2	5800	1800	44000	2	4.6	0.4	1	18.3	530	<0.005	1.3	6	0.9	0.03
ASR	04/29/2010	Recovery	2	<0.1	51200	9840	<2	5700	2050	46000	2	3	0.4	0.8	3.7	250	<0.005	1.2	<0.2	<0.5	0.03
ASR	05/06/2010	Recovery	2	<0.1	69800	11100	<2	5800	2380	48300	2	2.6	0.5	1.1	2	80	<0.005	0.7	2	<0.5	0.03
ASR	05/13/2010	Recovery	3	<0.1	81900	12300	<2	5900	2700	47700	2	2.3	0.5	1.2	1.7	<10	<0.005	0.4	<0.2	3.8	0.02
ASR	05/20/2010	Recovery	3	<0.1	94000	12800	<2	5700	2840	50200	2	2.1	0.5	1.4	1.5	<10	<0.005	0.8	73.8	9.5	0.02
ASR	06/28/2010	Injection	3	<0.1	111000	13300	<2	5200	3470	57700	2	2	0.3	1	3	40	<0.005	<0.3	1.9	2.3	0.02
ASR	10/05/2010	Storage	2	<0.1	27000	10300	8	4900	1560	55300	1	2.6	3.2	0.9	28.8	160	0.041	1.7	7.3	1.7	0.03
ASR	10/18/2010	Storage	2	<0.1	31100	9880	4	5100	1650	53200	1	4.9	0.8	0.7	77.9	1150	<0.005	1.1	2.7	0.8	0.05
ASR	11/22/2010	Recovery	2	<0.1	44200	9060	<2	4800	1770	49800	1	2.3	0.3	0.5	6.6	550	<0.005	1	6.9	0.7	0.03
ASR	11/29/2010	Recovery	2	<0.1	61700	9720	<2	4800	2050	49200	1	1.7	0.3	0.7	2.5	280	<0.005	0.7	2.8	<0.5	0.03
ASR	12/06/2010	Recovery	8	<0.1	66700	19800	9	7300	4790	52900	1	2.1	<0.1	<0.5	3.9	340	<0.005	1	1.5	2.9	0.04
ASR	12/13/2010	Recovery	8	<0.1	71000	12100	5	7300	5040	52800	1	1.9	<0.1	<0.5	3.3	240	<0.005	0.7	1.6	1.8	0.04
ASR	12/20/2010	Recovery	8	<0.1	78000	13600	4	7200	5180	54500	1	1.8	<0.1	<0.5	3.1	200	<0.005	0.4	1.7	1.9	0.03
ASR	12/22/2010	Recovery	8	<0.1	75800	13300	4	7700	5410	54100	1	1.9	<0.1	<0.5	3.4	200	<0.005	0.5	1.7	1	0.03
ASR	01/03/2011	Recovery	8	<0.1	81800	13200	6	7100	5410	53600	1	1.6	<0.1	<0.5	2.8	90	<0.005	0.3	2.1	1.9	0.02
ASR	01/10/2011	Recovery	9	<0.1	88400	14700	6	7300	5720	54000	1	1.5	<0.1	<0.5	2.6	60	<0.005	<0.3	2	1.3	0.02
ASR	01/18/2011	Recovery	9	<0.1	92200	14900	4	7300	5940	54500	1	1.5	<0.1	<0.5	2.6	40	<0.005	<0.3	2.1	1.5	0.02
ASR	01/24/2011	Recovery	9	<0.1	89500	14900	3	7400	6100	55300	1	1.5	<0.1	<0.5	2.7	20	<0.005	<0.3	2.2	1.7	0.02
ASR	02/01/2011	Recovery	10	<0.1	95800	15400	4	7300	6220	55400	1	1.5	<0.1	<0.5	2.6	<10	<0.005	<0.3	2.3	2.1	0.02
ASR	02/07/2011	Recovery	10	<0.1	95200	15200	3	7400	6330	55400	1	1.4	<0.1	<0.5	2.5	<10	<0.005	<0.3	2.3	2.7	0.02
ASR	02/14/2011	Recovery	10	<0.1	99100	15700	3	7300	6450	56700	1	1.4	<0.1	<0.5	2.5	<10	<0.005	0.5	2.3	2.2	0.02

REPORT OF INVESTIGATION NO. 112

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	05/21/2009	Recovery	<0.01	12.8	1	440	3.25	710	<0.003	<0.01	<0.005	133	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.4	<0.1	24
ASR	05/26/2009	Recovery	<0.01	5.98	<0.2	490	3.45	780	<0.003	<0.01	<0.005	102	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.2	<0.1	25
ASR	05/29/2009	Recovery	<0.01	3.85	1	540	3.62	940	<0.003	<0.01	<0.005	92.1	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.2	<0.1	20
ASR	06/22/2009	Storage	<0.01	0.71	1	99	2.71		0.01	<0.01	<0.005	12.3	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	<0.1	24
ASR	07/30/2009	Recovery	<0.01	24.5	1	290	2.99	560	<0.003	<0.01	<0.005	167	<0.01	<0.01	<0.2	0.4	<0.001	<0.1	0.1	<0.1	30
ASR	08/03/2009	Recovery	<0.01	22	1	320	3.02	620	<0.003	<0.01	<0.005	128	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.1	<0.1	38
ASR	08/06/2009	Recovery	<0.01	9.99	1	410	3.22	760	<0.003	<0.01	<0.005	86.2	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.2	<0.1	34
ASR	08/11/2009	Recovery	<0.01	4.39	1	480	3.39	850	<0.003	<0.01	<0.005	63.6	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	<0.01	<0.1	11
ASR	08/13/2009	Recovery	<0.01	3.28	2	505	3.53	900	<0.003	<0.01	<0.005	59.2	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	<0.1	10
ASR	01/25/2010	Injection	0.02	2.29	0.8	678	3.48	920	0.016	0.05	<0.005	19.3	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	<0.01	0.1	6
ASR	04/12/2010	Storage	0.02	8.66	<0.2	362	2.57	350	0.007	0.07	<0.005	34.9	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	0.07	<0.1	21
ASR	04/19/2010	Storage	0.02	8.9	<0.2	333	2.66	360	0.007	0.07	<0.005	34.3	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	0.03	<0.1	22
ASR	04/27/2010	Storage	0.02	9.87	1.4	343	2.96	360	0.007	0.05	<0.005	35.9	<0.01	0.03	<0.2	0.17	<0.001	0.5	0.06	<0.1	21
ASR	04/29/2010	Recovery	0.02	6.27	1.4	336	3.07	430	0.006	0.03	<0.005	27.6	<0.01	0.02	<0.2	0.14	<0.001	<0.1	0.08	<0.1	9
ASR	05/06/2010	Recovery	0.02	2.67	1.8	453	3.36	540	0.006	0.02	<0.005	22.3	<0.01	0.02	<0.2	0.11	<0.001	0.1	0.04	<0.1	15
ASR	05/13/2010	Recovery	0.02	1.5	2.2	532	3.67	600	0.007	0.02	<0.005	20.2	<0.01	0.02	<0.2	0.1	<0.001	<0.1	0.01	<0.1	7
ASR	05/20/2010	Recovery	0.02	1.07	2.2	607	3.75	660	0.007	0.01	<0.005	17.2	<0.01	0.01	<0.2	0.08	<0.001	1.7	0.03	<0.1	5
ASR	06/28/2010	Injection	0.03	0.86	3.9	875	4.17	840	0.007	0.12	<0.005	6	<0.01	0.01	<0.2	0.05	<0.001	<0.1	0.04	<0.1	16
ASR	10/05/2010	Storage	0.02	9.56	1.4	413	2.71	290	0.023	0.16	<0.005	106	<0.01	<0.01	<0.2	0.44	<0.001	<0.1	0.85	<0.1	53
ASR	10/18/2010	Storage	0.02	13.5	1.4	494	2.73	340	0.015	0.24	<0.005	107	<0.01	<0.01	<0.2	0.45	<0.001	<0.1	0.11	<0.1	83
ASR	11/22/2010	Recovery	0.02	9.3	1.1	372	2.82	400	0.006	0.05	<0.005	57.7	<0.01	<0.01	<0.2	0.25	<0.001	0.5	0.05	<0.1	44
ASR	11/29/2010	Recovery	0.02	4.82	1.9	432	2.98	520	0.005	0.02	<0.005	33.5	<0.01	<0.01	<0.2	0.14	<0.001	0.2	0.04	<0.1	39
ASR	12/06/2010	Recovery	0.03	3.59	<0.2	691	4.51	630	0.008	0.03	0.005	32.8	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	<0.01	<0.1	7
ASR	12/13/2010	Recovery	0.02	2.31	<0.2	740	4.58	660	0.006	0.03	<0.005	28.4	<0.01	<0.01	<0.2	0.05	<0.001	<0.1	<0.01	<0.1	8
ASR	12/20/2010	Recovery	0.03	1.63	<0.2	794	4.7	700	0.005	0.02	<0.005	24.3	<0.01	<0.01	<0.2	0.05	<0.001	<0.1	<0.01	<0.1	9
ASR	12/22/2010	Recovery	0.03	1.56	<0.2	816	4.88	710	0.006	0.03	<0.005	20.4	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01	<0.1	9
ASR	01/03/2011	Recovery	0.03	0.72	<0.2	849	4.79	740	0.006	0.02	<0.005	20	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01	<0.1	10
ASR	01/10/2011	Recovery	0.03	0.49	<0.2	908	4.99	770	0.006	0.02	<0.005	20.8	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01	<0.1	11
ASR	01/18/2011	Recovery	0.02	0.28	<0.2	957	5.09	790	0.006	0.02	<0.005	18.4	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	7
ASR	01/24/2011	Recovery	0.03	0.16	<0.2	980	5.16	810	0.006	0.01	<0.005	16.4	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	7
ASR	02/01/2011	Recovery	0.03	0.09	<0.2	1000	5.22	830	0.006	0.02	<0.005	15.8	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	6
ASR	02/07/2011	Recovery	0.03	<0.03	<0.2	1020	5.32	840	0.006	0.02	<0.005	14.8	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	6
ASR	02/14/2011	Recovery	0.02	<0.03	<0.2	1050	5.32	860	0.006	0.02	<0.005	15.1	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	6

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	05/21/2009	Recovery	0.03	18.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	05/26/2009	Recovery	0.03	19.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	05/29/2009	Recovery	0.03	19.7	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	06/22/2009	Storage	0.04	16.2	0.01	0.02	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	07/30/2009	Recovery	0.03	16.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	08/03/2009	Recovery	0.04	17.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	08/06/2009	Recovery	0.03	17.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	08/11/2009	Recovery	0.03	19.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	08/13/2009	Recovery	0.03	19.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	01/25/2010	Injection	0.033	20.8	0.01	0.018	0.002	0.009	0.003	<0.001	0.002	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001
ASR	04/12/2010	Storage	0.035	19.8	0.003	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	04/19/2010	Storage	0.036	20.5	0.002	0.003	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
ASR	04/27/2010	Storage	0.038	17.5	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	04/29/2010	Recovery	0.037	15.6	0.003	0.004	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	05/06/2010	Recovery	0.038	17	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	05/13/2010	Recovery	0.037	18.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	05/20/2010	Recovery	0.036	18.3	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	06/28/2010	Injection	0.037	22.2	0.013	0.024	0.002	0.005	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	10/05/2010	Storage	0.049	15.3	0.013	0.022	0.004	0.014	0.003	0.002	0.004	<0.001	0.003	<0.001	0.002	<0.001	0.002	<0.001
ASR	10/18/2010	Storage	0.038	26	0.006	0.011	0.001	0.007	0.002	0.002	0.002	<0.001	0.002	<0.001	0.002	<0.001	0.001	<0.001
ASR	11/22/2010	Recovery	0.038	15.8	0.001	0.002	<0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	11/29/2010	Recovery	0.035	15.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	12/06/2010	Recovery	0.033	17.1	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	12/13/2010	Recovery	0.031	17.3	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	12/20/2010	Recovery	0.032	18.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	12/22/2010	Recovery	0.032	18.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	01/03/2011	Recovery	0.03	18.2	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	01/10/2011	Recovery	0.029	18.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	01/18/2011	Recovery	0.03	19.4	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	01/24/2011	Recovery	0.031	19.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	02/01/2011	Recovery	0.03	19.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	02/07/2011	Recovery	0.031	19.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	02/14/2011	Recovery	0.031	19.9	0.012	0.012	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

REPORT OF INVESTIGATION NO. 112

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Chloride	Temp
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	°C
ASR	05/21/2009	Recovery	<0.001	<0.001	<0.02	0.07	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.61			24.4
ASR	05/26/2009	Recovery	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.39			24.3
ASR	05/29/2009	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.28			24.7
ASR	06/22/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.2			
ASR	07/30/2009	Recovery	<0.001	<0.001	<0.02	0.11	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.83			24.9
ASR	08/03/2009	Recovery	<0.001	<0.001	<0.02	0.08	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.74			24.9
ASR	08/06/2009	Recovery	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.44			24.8
ASR	08/11/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.28			24.7
ASR	08/13/2009	Recovery	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.24			24.7
ASR	01/25/2010	Injection	<0.001	<0.001	<0.02	0.023	<0.002	<0.3	<0.002	<0.2	0.007	0.02	<0.3	0.002	0.234			24.4
ASR	04/12/2010	Storage	0.001	<0.001	<0.02	0.021	<0.002	<0.3	<0.002	<0.2	0.001	0.02	<0.3	<0.001	0.347			23.3
ASR	04/19/2010	Storage	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	0.001	0.02	<0.3	<0.001	0.353			23.4
ASR	04/27/2010	Storage	<0.001	<0.001	<0.02	0.021	<0.002	<0.3	<0.002	<0.2	<0.001	0.5	<0.3	<0.001	0.347			23.5
ASR	04/29/2010	Recovery	<0.001	<0.001	<0.02	0.014	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.234			23.4
ASR	05/06/2010	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	0.14	<0.3	<0.001	0.152			23.9
ASR	05/13/2010	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.117			24.2
ASR	05/20/2010	Recovery	<0.001	<0.001	<0.02	0.008	<0.002	<0.3	<0.002	<0.2	<0.001	6.26	<0.3	<0.001	0.093			24.2
ASR	06/28/2010	Injection	0.004	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	0.003	0.07	<0.3	<0.001	0.063			
ASR	10/05/2010	Storage	0.004	<0.001	<0.02	0.048	<0.002	<0.3	<0.002	<0.2	0.092	0.06	<0.3	0.002	0.433			24.6
ASR	10/18/2010	Storage	0.005	<0.001	<0.02	0.055	<0.002	<0.3	<0.002	<0.2	0.002	0.03	<0.3	0.002	0.451			24.6
ASR	11/22/2010	Recovery	0.002	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	0.63	<0.3	<0.001	0.354			24.5
ASR	11/29/2010	Recovery	0.001	<0.001	<0.02	0.018	<0.002	<0.3	<0.002	<0.2	<0.001	0.21	<0.3	<0.001	0.231			24.5
ASR	12/06/2010	Recovery	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.192			24.4
ASR	12/13/2010	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.15			24.3
ASR	12/20/2010	Recovery	<0.001	<0.001	<0.02	0.008	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.13			24.5
ASR	12/22/2010	Recovery	<0.001	<0.001	<0.02	0.008	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.131			24.5
ASR	01/03/2011	Recovery	<0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.096			24.4
ASR	01/10/2011	Recovery	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.085			24.4
ASR	01/18/2011	Recovery	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.077			24.5
ASR	01/24/2011	Recovery	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.067			24.5
ASR	02/01/2011	Recovery	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.06	<0.3	<0.001	0.064			24.5
ASR	02/07/2011	Recovery	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.059			24.5
ASR	02/14/2011	Recovery	<0.001	<0.001	<0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.054			24.4

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	pH	ORP	Conductivity	DO
			std. units	mV	µS/cm	mg/L
ASR	05/21/2009	Recovery	7.86	-163.7		0.36
ASR	05/26/2009	Recovery	7.67	-182.5		0.33
ASR	05/29/2009	Recovery	7.82	-220.1		0.34
ASR	06/22/2009	Storage				
ASR	07/30/2009	Recovery	7.56	-125.6		0.15
ASR	08/03/2009	Recovery	7.68	-128.4		0.17
ASR	08/06/2009	Recovery	7.46	-152.1		0.16
ASR	08/11/2009	Recovery	7.8	217.7		0.15
ASR	08/13/2009	Recovery	7.77	-195.7		0.13
ASR	01/25/2010	Injection	7.54	-61		0.52
ASR	04/12/2010	Storage	7.55	-141.8		0.18
ASR	04/19/2010	Storage	7.57	-170.6		0.23
ASR	04/27/2010	Storage	7.32	498.6		0.23
ASR	04/29/2010	Recovery	7.38	503.7		0.17
ASR	05/06/2010	Recovery	7.65	-129.3		0.21
ASR	05/13/2010	Recovery	7.62	-203.2		0.27
ASR	05/20/2010	Recovery	7.42	-139.3		0.28
ASR	06/28/2010	Injection				
ASR	10/05/2010	Storage	7.67	-32.4		0.86
ASR	10/18/2010	Storage	7.46	-113.3		0.93
ASR	11/22/2010	Recovery	7.76	-151.1		0.26
ASR	11/29/2010	Recovery	7.85	-163.8		0.28
ASR	12/06/2010	Recovery	7.76	-204.8		0.29
ASR	12/13/2010	Recovery	7.81	-264.9		0.31
ASR	12/20/2010	Recovery	7.89	-243		0.16
ASR	12/22/2010	Recovery	7.78	-234.6		0.18
ASR	01/03/2011	Recovery	7.61	-246.5		0.25
ASR	01/10/2011	Recovery	7.57	-248.7		0.2
ASR	01/18/2011	Recovery	7.55	-255.4		0.16
ASR	01/24/2011	Recovery	7.61	-269		0.14
ASR	02/01/2011	Recovery	7.14	-264.3		0.18
ASR	02/07/2011	Recovery	7.35	-250.2		0.23
ASR	02/14/2011	Recovery	7.39	-261		0.2

REPORT OF INVESTIGATION NO. 112

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	04/20/2009	Injection	3	<0.1	112000	17600	8	4900	3710	56800	1	1	<0.1	<0.5	3.4	120	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	04/27/2009	Storage	4	<0.1	146000	19900	3	5000	4480	61900	1	1	<0.1	<0.5	3.8	360	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	05/11/2009	Storage	4	<0.1	173000	20700	3	4900	4910	65200	1	1	<0.1	<0.5	3.8	200	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	05/18/2009	Recovery	5	<0.1	202000	22900	4	5100	5670	69900	1	1	<0.1	<0.5	1.9	90	<0.005	<0.3	<0.2	5.5	<0.01
SZMW-1	05/21/2009	Recovery	5	<0.1	207000	23500	2	5100	5880	68700	1	1	<0.1	<0.5	2.4	250	<0.005	<0.3	<0.2	0.6	<0.01
SZMW-1	05/26/2009	Recovery	6	<0.1	223000	25000	<2	4800	5970	71700	1	1	<0.1	<0.5	3.5	250	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	05/29/2009	Recovery	6	<0.1	235000	25600	120	5100	6480	75200	1	1	<0.1	<0.5	1.9	50	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	06/22/2009	Storage	6	<0.1	181000	21800	2	4900	5270	64400	1	1	<0.1	<0.5	2.7	90	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	07/06/2009	Storage	5	<0.1	130000	19700	2	5100	4240	58000	1	1	<0.1	<0.5	1.3	<10	<0.005	<0.3	0.2	2	<0.01
SZMW-1	07/20/2009	Storage	5	<0.1	175000	21000	<2	5000	5130	63100	1	1	<0.1	<0.5	1.6	10	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	07/30/2009	Recovery	6	<0.1	185000	21900	6	4900	5200	67100	1	1	<0.1	<0.5	1.7	40	<0.005	<0.3	<0.2	0.8	<0.01
SZMW-1	08/03/2009	Recovery	6	<0.1	192000	21700	5	5000	5290	64100	1	1	<0.1	<0.5	1.9	30	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	08/06/2009	Recovery	6	<0.1	207000	23600	<2	5000	5670	68700	1	1	<0.1	<0.5	1.3	20	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	08/10/2009	Recovery	6	<0.1	228000	25500	7	4900	6010	73900	1	1	<0.1	<0.5	1.5	60	0.03	<0.3	<0.2	0.9	<0.01
SZMW-1	08/13/2009	Recovery	7	<0.1	238000	26600	<2	5000	6540	74200	1	1	<0.1	<0.5	1.6	90	<0.005	<0.3	<0.2	<0.5	<0.01
SZMW-1	01/25/2010	Injection	4	<0.1	184000	21100	<2	5200	5850	59300	2	1.6	0.1	<0.5	2.6	180	0.018	1	<0.2	1.8	0.01
SZMW-1	02/22/2010	Injection	2	<0.1	53000	12500	<2	5400	2770	43400	2	1.8	0.4	0.7	2.7	80	0.011	<0.3	<0.2	<0.5	0.03
SZMW-1	04/05/2010	Storage	39	<0.1	75300	12700	6	5400	12700	47500	2	1.7	1.4	0.6	1	20	0.03	<0.3	<0.2	1.4	0.05
SZMW-1	04/19/2010	Storage	34	<0.1	75500	12900	6	5500	11700	48400	2	1.9	1.3	0.6	0.8	20	0.025	<0.3	<0.2	1.1	0.05
SZMW-1	04/27/2010	Storage	4	<0.1	96100	17100	2	5800	4130	49000	2	1.7	0.6	1.8	1.5	<10	<0.005	<0.3	0.8	<0.5	0.02
SZMW-1	05/06/2010	Recovery	5	<0.1	232000	18400	2	5800	5400	56500	2	1.4	0.6	2.1	1.7	<10	<0.005	<0.3	0.6	3.7	0.02
SZMW-1	05/13/2010	Recovery	6	<0.1	225000	19500	2	6000	5980	58500	2	1.6	0.7	2.1	1.5	<10	<0.005	<0.3	1.4	0.6	0.02
SZMW-1	05/20/2010	Recovery	6	<0.1	228000	19400	3	5900	6410	59600	2	1.5	0.6	2.1	1.8	<10	<0.005	<0.3	3.2	1	0.02
SZMW-1	06/29/2010	Injection	4	<0.1	221000	19400	<2	5100	6040	70200	2	1.1	0.3	1.5	2.3	70	<0.005	<0.3	4	0.7	0.02
SZMW-1	07/26/2010	Injection	3	<0.1	114000	14800	2	5200	3950	50200	2	1.3	0.3	1.3	1.4	20	<0.005	0.9	1.1	0.7	0.02
SZMW-1	08/30/2010	Injection	4	<0.1	50400	10000	<2	5200	2130	45200	1	1.4	0.4	0.8	1.9	40	<0.005	<0.3	10.2	1.1	0.02
SZMW-1	09/28/2010	Injection	2	<0.1	67500	11100	<2	5000	2530	46600	1	1.3	0.4	0.7	3.9	70	<0.005	<0.3	0.7	0.6	0.03
SZMW-1	10/05/2010	Storage	3	<0.1	100000	13700	<2	5200	3410	48800	1	1.2	0.3	1.1	1.3	40	<0.005	<0.3	0.9	<0.5	0.02
SZMW-1	10/14/2010	Storage	3	<0.1	126000	15100	3	5300	3900	53500	1	1.1	0.3	1.2	1.1	10	<0.005	<0.3	9.3	0.8	0.02
SZMW-1	10/25/2010	Storage	3	<0.1	138000	17100	<2	5600	4460	53300	2	1.2	0.3	1.4	1.2	20	<0.005	<0.3	1.4	<0.5	0.02
SZMW-1	11/09/2010	Storage	4	<0.1	156000	17800	<2	5600	4910	59300	2	1.2	0.3	1.4	1.4	40	<0.005	0.6	74.2	5.8	0.02
SZMW-1	11/16/2010	Storage	4	<0.1	159000	18400	<2	5800	4980	60000	2	1.2	0.3	1.4	1.2	20	<0.005	<0.3	2.4	<0.5	0.02
SZMW-1	11/24/2010	Recovery	4	<0.1	168000	18800	<2	5800	5160	63000	2	1.2	0.3	1.3	1.2	20	<0.005	<0.3	2.7	<0.5	0.02

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	04/20/2009	Injection	<0.01	8.55	1	600	3.51	1290	<0.003	<0.01	<0.005	208	<0.01	<0.01	<0.2	0.5	<0.001	<0.1	1.1	0.1	10
SZMW-1	04/27/2009	Storage	<0.01	3.53	1	830	3.89	1550	<0.003	<0.01	<0.005	96.1	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.3	<0.1	10
SZMW-1	05/11/2009	Storage	<0.01	2.32	1	980	4.21	1730	<0.003	<0.01	<0.005	65.9	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.2	<0.1	9
SZMW-1	05/18/2009	Recovery	<0.01	1.61	2	1220	4.53	1880	<0.003	<0.01	<0.005	46.2	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.2	<0.1	9
SZMW-1	05/21/2009	Recovery	<0.01	1.7	3	1230	4.74	1890	<0.003	<0.01	<0.005	46.4	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.1	<0.1	31
SZMW-1	05/26/2009	Recovery	<0.01	1.37	1	1310	4.7	1960	<0.003	<0.01	<0.005	34.7	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.1	0.1	33
SZMW-1	05/29/2009	Recovery	<0.01	1.03	3	1360	4.95	2030	0.02	<0.01	<0.005	28.4	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.1	10
SZMW-1	06/22/2009	Storage	<0.01	0.97	1	1090	4.41	1580	<0.003	<0.01	<0.005	38.8	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.1	10
SZMW-1	07/06/2009	Storage	<0.01	3.31	2	720	3.69	1370	<0.003	<0.01	<0.005	107	<0.01	<0.01	<0.2	0.3	<0.001	<0.1	0.2	<0.1	10
SZMW-1	07/20/2009	Storage	<0.01	1.36	1	1010	4.2	1660	<0.003	<0.01	<0.005	49.5	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	<0.1	10
SZMW-1	07/30/2009	Recovery	<0.01	1.38	2	1060	4.21	1750	<0.003	<0.01	<0.005	39.8	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.1	9
SZMW-1	08/03/2009	Recovery	<0.01	1.38	1	1120	4.3	1770	<0.003	<0.01	<0.005	34.2	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	<0.1	9
SZMW-1	08/06/2009	Recovery	<0.01	1	1	1210	4.38	1880	<0.003	<0.01	<0.005	29.5	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	<0.1	9
SZMW-1	08/10/2009	Recovery	<0.01	1.12	3	1310	4.79	2000	<0.003	<0.01	<0.005	24.6	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	<0.1	9
SZMW-1	08/13/2009	Recovery	<0.01	1.21	3	1380	4.99	2020	0.01	<0.01	<0.005	22.2	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	0.1	9
SZMW-1	01/25/2010	Injection	0.02	0.83	1.1	1270	4.45	1550	0.004	<0.01	<0.005	17.5	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	<0.01	<0.1	6
SZMW-1	02/22/2010	Injection	0.02	2.48	<0.2	335	2.28	660	0.003	0.01	<0.005	26.9	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	<0.1	4
SZMW-1	04/05/2010	Storage	0.02	3.09	<0.2	490	52.8	770	<0.003	<0.01	<0.005	68.7	<0.01	<0.01	<0.2	0.22	<0.001	<0.1	0.08	<0.1	2
SZMW-1	04/19/2010	Storage	0.02	2.81	<0.2	484	46.6	770	<0.003	0.01	<0.005	60.9	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.06	<0.1	2
SZMW-1	04/27/2010	Storage	0.02	1.56	3.2	912	4	1060	0.009	0.01	<0.005	28.4	<0.01	0.03	<0.2	0.13	<0.001	<0.1	0.01	<0.1	13
SZMW-1	05/06/2010	Recovery	0.02	1.35	4.4	1340	4.87	1320	0.013	<0.01	<0.005	21.5	<0.01	0.02	<0.2	0.1	<0.001	<0.1	0.01	<0.1	6
SZMW-1	05/13/2010	Recovery	0.03	1.44	4.5	1550	5.21	1370	0.014	<0.01	<0.005	18.3	<0.01	0.02	<0.2	0.09	<0.001	<0.1	<0.01	0.1	5
SZMW-1	05/20/2010	Recovery	0.02	1.36	4.3	1670	5.55	1510	0.014	0.01	<0.005	16.2	<0.01	0.02	<0.2	0.07	<0.001	0.1	<0.01	0.1	4
SZMW-1	06/29/2010	Injection	0.03	1.49	7	1690	5.17	1730	0.01	0.01	<0.005	11.2	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	0.02	<0.1	13
SZMW-1	07/26/2010	Injection	0.02	1.05	3.3	839	3.66	930	0.007	0.02	<0.005	14.6	<0.01	<0.01	<0.2	0.09	<0.001	<0.1	0.01	<0.1	14
SZMW-1	08/30/2010	Injection	0.01	3.74	1.4	319	2.21	520	0.005	0.02	<0.005	12.8	<0.01	<0.01	<0.2	0.07	<0.001	0.6	0.1	<0.1	24
SZMW-1	09/28/2010	Injection	0.02	4.9	1.9	437	2.63	700	0.004	0.01	<0.005	111	<0.01	<0.01	<0.2	0.5	<0.001	<0.1	0.13	<0.1	19
SZMW-1	10/05/2010	Storage	0.02	1.89	3.1	707	3.26	930	0.006	0.01	<0.005	34.8	<0.01	<0.01	<0.2	0.14	<0.001	<0.1	0.02	<0.1	32
SZMW-1	10/14/2010	Storage	0.02	1.52	3.7	866	3.59	1010	0.006	0.01	<0.005	21.7	<0.01	<0.01	<0.2	0.09	<0.001	0.3	0.01	<0.1	9
SZMW-1	10/25/2010	Storage	0.02	1.51	4.5	1010	3.91	1130	0.008	0.01	<0.005	17.1	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.01	<0.1	9
SZMW-1	11/09/2010	Storage	0.02	1.41	4.9	1130	4.2	1340	0.009	0.01	<0.005	14.1	<0.01	<0.01	<0.2	0.06	<0.001	1.9	0.04	<0.1	8
SZMW-1	11/16/2010	Storage	0.02	1.37	5.1	1160	4.24	1400	0.008	0.01	<0.005	13.2	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	<0.01	<0.1	7
SZMW-1	11/24/2010	Recovery	0.02	1.29	5.3	1220	4.32	1440	0.008	0.01	<0.005	12.8	<0.01	<0.01	<0.2	0.05	<0.001	<0.1	<0.01	<0.1	8

REPORT OF INVESTIGATION NO. 112

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	04/20/2009	Injection	0.03	23.1	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/27/2009	Storage	0.03	27.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/11/2009	Storage	0.04	29.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/18/2009	Recovery	0.04	33.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/21/2009	Recovery	0.04	33.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/26/2009	Recovery	0.04	33.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/29/2009	Recovery	0.05	35.7	0.04	0.09	0.01	0.05	0.01	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/22/2009	Storage	0.04	27.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/06/2009	Storage	0.03	24.4	0.01	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/20/2009	Storage	0.04	28.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/30/2009	Recovery	0.04	29.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/03/2009	Recovery	0.04	30.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/06/2009	Recovery	0.04	31.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/10/2009	Recovery	0.04	34.6	0.02	0.02	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/13/2009	Recovery	0.04	35.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/25/2010	Injection	0.039	28.8	0.004	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/22/2010	Injection	0.017	12.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/05/2010	Storage	2.83	17.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/19/2010	Storage	2.54	17.8	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/27/2010	Storage	0.032	24.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/06/2010	Recovery	0.043	30.3	0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/13/2010	Recovery	0.044	32.5	0.001	0.001	<0.001	<0.001	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/20/2010	Recovery	0.046	33.3	0.001	0.001	<0.001	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	06/29/2010	Injection	0.042	32.1	0.004	0.006	<0.001	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	07/26/2010	Injection	0.026	21.4	0.005	0.009	0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	08/30/2010	Injection	0.016	12.3	0.015	0.026	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	09/28/2010	Injection	0.016	16.1	0.006	0.011	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/05/2010	Storage	0.025	19.9	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/14/2010	Storage	0.029	22.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	10/25/2010	Storage	0.031	24.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/09/2010	Storage	0.033	26.2	0.003	0.004	<0.001	0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/16/2010	Storage	0.034	26.7	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	11/24/2010	Recovery	0.036	28.3	0.003	0.004	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Chloride	Temp
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	°C
SZMW-1	04/20/2009	Injection	<0.001	<0.001	<0.02	0.1	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.09	38	190	23.2
SZMW-1	04/27/2009	Storage	<0.001	<0.001	<0.02	0.05	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.06	44	250	23.6
SZMW-1	05/11/2009	Storage	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.05	55	300	24.3
SZMW-1	05/18/2009	Recovery	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.06			23.2
SZMW-1	05/21/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.06	64	380	23.3
SZMW-1	05/26/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.05			24
SZMW-1	05/29/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.05			23.6
SZMW-1	06/22/2009	Storage	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.06	54	320	24.3
SZMW-1	07/06/2009	Storage	<0.001	<0.001	<0.02	0.04	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.07	49	230	24.3
SZMW-1	07/20/2009	Storage	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.05	55	310	23.6
SZMW-1	07/30/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.05	59	330	25.7
SZMW-1	08/03/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.05			24.7
SZMW-1	08/06/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.05	64	370	24.4
SZMW-1	08/10/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.04	69	400	
SZMW-1	08/13/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.05			24.1
SZMW-1	01/25/2010	Injection	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.04	59	340	22.5
SZMW-1	02/22/2010	Injection	<0.001	<0.001	<0.02	0.026	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.16	20	97	23.4
SZMW-1	04/05/2010	Storage	<0.001	<0.001	<0.02	0.028	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.251	31	150	22.8
SZMW-1	04/19/2010	Storage	<0.001	<0.001	<0.02	0.026	<0.002	<0.3	0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.243	38	210	23.2
SZMW-1	04/27/2010	Storage	<0.001	<0.001	<0.02	0.009	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.064	42	230	23.1
SZMW-1	05/06/2010	Recovery	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.049			23.6
SZMW-1	05/13/2010	Recovery	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.047			23.7
SZMW-1	05/20/2010	Recovery	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	0.18	<0.3	<0.001	0.042			23.8
SZMW-1	06/29/2010	Injection	<0.001	<0.001	<0.02	0.003	<0.002	<0.3	0.002	<0.2	<0.001	0.08	<0.3	<0.001	0.044	68	390	24.4
SZMW-1	07/26/2010	Injection	0.001	<0.001	<0.02	0.005	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.047	41	210	24.5
SZMW-1	08/30/2010	Injection	<0.001	<0.001	<0.02	0.011	<0.002	<0.3	<0.002	<0.2	<0.001	0.89	<0.3	<0.001	0.125	18	82	24.2
SZMW-1	09/28/2010	Injection	<0.001	<0.001	<0.02	0.032	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.065	24	110	23.7
SZMW-1	10/05/2010	Storage	<0.001	<0.001	<0.02	0.011	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.054	35	180	23.6
SZMW-1	10/14/2010	Storage	0.001	<0.001	<0.02	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.78	<0.3	<0.001	0.049			23.5
SZMW-1	10/25/2010	Storage	<0.001	<0.001	<0.02	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.047	54	270	23.7
SZMW-1	11/09/2010	Storage	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	6.02	<0.3	<0.001	0.041	56	290	23
SZMW-1	11/16/2010	Storage	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.04	57	300	23.6
SZMW-1	11/24/2010	Recovery	<0.001	<0.001	<0.02	0.004	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.044			23

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Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	pH	ORP	Conductivity	DO
			std. units	mV	µS/cm	mg/L
SZMW-1	04/20/2009	Injection	7.88	-200.7	949	0.43
SZMW-1	04/27/2009	Storage	7.87	-227.2	1191	0.55
SZMW-1	05/11/2009	Storage	7.85	-237.1	1370	0.39
SZMW-1	05/18/2009	Recovery	7.8	-234.3	1588	0.43
SZMW-1	05/21/2009	Recovery	7.82	-218.2	1652	0.46
SZMW-1	05/26/2009	Recovery	7.86	-182.8	1731	0.59
SZMW-1	05/29/2009	Recovery	7.79	-229.1	1711	0.53
SZMW-1	06/22/2009	Storage	7.78	-212.3	1400	0.43
SZMW-1	07/06/2009	Storage	7.72	-210	1126	0.48
SZMW-1	07/20/2009	Storage	7.69	-224.1	1375	0.56
SZMW-1	07/30/2009	Recovery	7.75	-209.6	1434	2.08
SZMW-1	08/03/2009	Recovery	7.73	-221.8	1472	0.53
SZMW-1	08/06/2009	Recovery	7.76	-213.6	1574	0.42
SZMW-1	08/10/2009	Recovery			1682	
SZMW-1	08/13/2009	Recovery	7.76	-219.7	1756	0.57
SZMW-1	01/25/2010	Injection	7.67	-213.2	1618	0.76
SZMW-1	02/22/2010	Injection	7.75	-161.7	582	1.05
SZMW-1	04/05/2010	Storage	7.88	-204.2	806	0.48
SZMW-1	04/19/2010	Storage	7.72	-191.5	987	0.53
SZMW-1	04/27/2010	Storage	7.52	-193.4	1071	0.54
SZMW-1	05/06/2010	Recovery	7.68	-176	1412	0.66
SZMW-1	05/13/2010	Recovery	7.81	-211.2	1542	0.73
SZMW-1	05/20/2010	Recovery	7.61	-225.6	1666	0.67
SZMW-1	06/29/2010	Injection	7.37	-231.9	1597	0.52
SZMW-1	07/26/2010	Injection	7.59	-185.2	991	0.62
SZMW-1	08/30/2010	Injection	7.62	-115.6	573	0.58
SZMW-1	09/28/2010	Injection	7.8	-193.5	698	0.56
SZMW-1	10/05/2010	Storage	7.79	-229.4	945	0.73
SZMW-1	10/14/2010	Storage	7.83	-216.9	1096	0.56
SZMW-1	10/25/2010	Storage	7.81	-221.3	1189	0.82
SZMW-1	11/09/2010	Storage	7.68	-229.1	1275	0.63
SZMW-1	11/16/2010	Storage	7.72	-228.5	1292	0.63
SZMW-1	11/24/2010	Recovery	7.8	-225.1	1361	0.66

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	12/02/2010	Recovery	4	<0.1	187000	19800	<2	5500	5340	66200	2	1.1	0.2	1.1	1.2	20	<0.005	<0.3	2.8	<0.5	0.02
SZMW-1	12/06/2010	Recovery	15	<0.1	195000	23500	18	7400	11400	66600	1	1.2	<0.1	<0.5	2.3	<10	<0.005	<0.3	4.7	1.2	0.03
SZMW-1	12/13/2010	Recovery	16	<0.1	199000	23600	5	7400	11800	66300	1	1.2	<0.1	<0.5	2.4	<10	<0.005	<0.3	5.1	2.2	0.03
SZMW-1	12/20/2010	Recovery	17	<0.1	202000	23900	5	7400	12100	66300	1	1.1	<0.1	<0.5	2.3	<10	<0.005	0.5	5.1	1.6	0.03
SZMW-1	12/22/2010	Recovery	17	<0.1	203000	24000	9	7400	12300	66900	2	1.2	<0.1	<0.5	2.3	<10	<0.005	1.2	5.5	6.1	0.03
SZMW-1	01/03/2011	Recovery	17	<0.1	216000	25200	9	7400	12900	68800	1	1.2	<0.1	<0.5	2.4	<10	<0.005	<0.3	6.2	7.3	0.03
SZMW-1	01/10/2011	Recovery	18	<0.1	222000	25700	8	7500	13500	69900	2	1.4	<0.1	<0.5	6.9	30	<0.005	<0.3	8.4	2	0.03
SZMW-1	01/18/2011	Recovery	18	<0.1	234000	26200	11	7400	13600	70800	2	1.2	<0.1	<0.5	2.5	<10	<0.005	1.2	120	26.2	0.03
SZMW-1	01/24/2011	Recovery	18	<0.1	236000	26400	4	7300	13700	70900	2	1.2	<0.1	<0.5	2.3	<10	<0.005	<0.3	5.9	1.1	0.03
SZMW-1	02/01/2011	Recovery	19	<0.1	287000		4	7600	14300	77200	2	1.3	<0.1	<0.5	2.3	<10	<0.005	<0.3	6.2	1.2	0.03
SZMW-1	02/07/2011	Recovery	6	<0.1	241000	26300	<2	5900	8320	70600	1	0.9	<0.1	<0.5	1.5	<10	<0.005	<0.3	4.9	1.2	0.02
SZMW-1	02/14/2011	Recovery	6	<0.1	242000	27200	3	5400	7800	71500	<1	0.8	<0.1	<0.5	1.3	<10	<0.005	<0.3	4.6	2	0.02
SZMW-2	04/20/2009	Injection	10	<0.1	114000	16200	15	5300	4950	55600	1	1	0.6	1.8	2	10	<0.005	<0.3	<0.2	1.7	<0.01
SZMW-2	04/27/2009	Storage	10	<0.1	111000	15300	15	5200	4830	55500	1	1	0.5	1.3	2	<10	<0.005	<0.3	<0.2	1.6	<0.01
SZMW-2	05/11/2009	Storage	10	<0.1	112000	15200	13	4900	4940	55200	1	1	0.5	0.9	1.6	<10	<0.005	<0.3	<0.2	1.7	<0.01
SZMW-2	05/18/2009	Recovery	15	<0.1	109000	16100	13	5300	6270	56000	1	1	0.5	0.6	1.5	<10	0.01	<0.3	<0.2	18.1	<0.01
SZMW-2	05/21/2009	Recovery	17	<0.1	105000	15300	8	5200	6490	53700	1	1	0.5	0.6	1.3	20	<0.005	1	<0.2	2.4	<0.01
SZMW-2	05/26/2009	Recovery	36	<0.1	108000	14400	7	5000	10500	50500	1	1	0.6	1.4	0.9	30	<0.005	1	0.3	5.5	<0.01
SZMW-2	05/29/2009	Recovery	36	<0.1	107000	14800	117	5100	10800	50000	1	1	0.8	1.2	1	30	0.01	<0.3	0.2	5.5	<0.01
SZMW-2	06/22/2009	Storage	41	<0.1	99600	14900	13	5300	12100	50500	1	1	0.9	0.9	2	40	0.02	1	<0.2	4.9	<0.01
SZMW-2	07/06/2009	Storage	34	<0.1	94500	14200	7	5100	10500	49900	1	1	1.2	1.8	2.1	40	0.01	<0.3	<0.2	4.1	<0.01
SZMW-2	07/20/2009	Storage	29	<0.1	88300	13600	7	5000	9390	51500	1	1	1.2	1	2	40	0.02	<0.3	<0.2	2.9	<0.01
SZMW-2	07/30/2009	Recovery	25	<0.1	85200	13000	6	4900	8120	52200	1	1	1.4	1.2	2	50	0.01	<0.3	<0.2	2.9	<0.01
SZMW-2	08/03/2009	Recovery	26	<0.1	84200	13200	6	5000	8500	52100	1	1	1.2	0.5	2	50	0.02	<0.3	<0.2	2.4	<0.01
SZMW-2	08/06/2009	Recovery	25	<0.1	84400	12900	6	4800	8560	51600	1	1	1.2	0.8	2	50	0.01	<0.3	<0.2	2.9	<0.01
SZMW-2	08/11/2009	Recovery	26	<0.1	83600	13100	7	5000	8650	49400	1	1	1.2	<0.5	1.9	50	0.01	<0.3	<0.2	2.1	<0.01
SZMW-2	08/13/2009	Recovery	26	<0.1	82300	13300	7	4900	8630	50700	1	1	1.3	0.9	2	60	0.01	1	<0.2	2.9	<0.01
SZMW-2	01/25/2010	Injection	16	<0.1	74500	13000	5	5500	7180	49200	2	1.8	1.3	0.5	2	40	0.013	<0.3	<0.2	0.6	0.06
SZMW-2	02/22/2010	Injection	26	<0.1	75600	13200	7	5500	9750	48700	2	1.8	1.3	0.8	2.1	30	0.012	<0.3	<0.2	1.9	0.05
SZMW-2	04/05/2010	Storage	3	<0.1	86500	14800	17	5500	3550	49400	2	1.7	0.2	<0.5	1.6	80	0.011	<0.3	<0.2	<0.5	0.03
SZMW-2	04/19/2010	Storage	3	<0.1	113000	18500	<2	5800	4490	50000	2	1.8	0.3	0.6	1.9	80	0.012	<0.3	<0.2	0.8	0.04
SZMW-2	04/27/2010	Recovery	41	<0.1	82500	12000	6	5800	10400	44900	2	1.6	1.6	2	0.6	<10	<0.005	0.3	1.5	4.9	0.04
SZMW-2	05/06/2010	Recovery	39	<0.1	82400	12200	6	5900	10100	46700	2	1.8	1.7	2	0.6	<10	<0.005	<0.3	<0.2	1.5	0.05

REPORT OF INVESTIGATION NO. 112

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	12/02/2010	Recovery	0.02	1.29	6.2	1340	4.54	1620	0.009	0.01	<0.005	10.6	<0.01	<0.01	<0.2	0.05	<0.001	<0.1	<0.01	<0.1	7
SZMW-1	12/06/2010	Recovery	0.04	0.06	<0.2	1330	6.88	1590	0.01	0.02	<0.005	12.9	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	10
SZMW-1	12/13/2010	Recovery	0.04	<0.03	<0.2	1330	7.04	1600	0.009	0.02	<0.005	12	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	9
SZMW-1	12/20/2010	Recovery	0.03	<0.03	<0.2	1420	7.2	1610	0.01	0.02	<0.005	11.4	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	9
SZMW-1	12/22/2010	Recovery	0.03	<0.03	<0.2	1430	7.33	1620	0.01	0.02	<0.005	11.1	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01	<0.1	7
SZMW-1	01/03/2011	Recovery	0.03	<0.03	<0.2	1540	7.46	1680	0.01	0.02	<0.005	9.6	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	9
SZMW-1	01/10/2011	Recovery	0.04	<0.03	<0.2	1580	7.62	1700	0.011	0.02	<0.005	9.2	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	8
SZMW-1	01/18/2011	Recovery	0.03	<0.03	<0.2	1620	7.8	1760	0.01	0.01	<0.005	8.8	<0.01	<0.01	<0.2	0.03	<0.001	1.7	<0.01	<0.1	6
SZMW-1	01/24/2011	Recovery	0.04	<0.03	<0.2	1600	7.72	1740	0.01	0.01	<0.005	8	<0.01	<0.01	<0.2	0.01	<0.001	<0.1	<0.01	<0.1	5
SZMW-1	02/01/2011	Recovery	0.03	<0.03	<0.2	1790	8.25	2140	0.01	0.01	<0.005	8.5	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	5
SZMW-1	02/07/2011	Recovery	0.03	<0.03	<0.2	1650	6.38	1730	0.009	0.01	<0.005	7.7	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	9
SZMW-1	02/14/2011	Recovery	0.03	<0.03	<0.2	1910	5.97	1760	0.009	0.01	<0.005	6.7	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	<0.1	8
SZMW-2	04/20/2009	Injection	<0.01	1.25	2	630	13.3	1160	<0.003	<0.01	<0.005	2.3	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	9
SZMW-2	04/27/2009	Storage	<0.01	1.08	1	630	13.9	1160	<0.003	<0.01	<0.005	2.2	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	0.1	9
SZMW-2	05/11/2009	Storage	<0.01	1.45	3	630	13.7	1160	<0.003	<0.01	<0.005	12.7	<0.01	<0.01	<0.2	<0.01	<0.001	<0.1	<0.01	<0.1	9
SZMW-2	05/18/2009	Recovery	<0.01	1.82	1	610	19.5	1110	<0.003	<0.01	<0.005	26.5	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.1	<0.1	8
SZMW-2	05/21/2009	Recovery	<0.01	1.73	1.5	595	21.7	1080	<0.003	<0.01	<0.005	32.7	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.1	<0.1	20
SZMW-2	05/26/2009	Recovery	<0.01	1.76	2	610	46.6	1040	<0.003	<0.01	<0.005	29.2	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.2	<0.1	19
SZMW-2	05/29/2009	Recovery	<0.01	1.98	2	610	48.4	1050	0.02	<0.01	<0.005	32.7	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.2	<0.1	13
SZMW-2	06/22/2009	Storage	<0.01	2.44	2	570	52.9	980	<0.003	<0.01	<0.005	50.2	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.3	<0.1	15
SZMW-2	07/06/2009	Storage	<0.01	2.83	2	550	46.2	950	<0.003	<0.01	<0.005	59.2	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.2	<0.1	14
SZMW-2	07/20/2009	Storage	<0.01	2.96	2	490	40	890	<0.003	<0.01	<0.005	68.7	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.1	<0.1	9
SZMW-2	07/30/2009	Recovery	<0.01	3.35	2	480	33.9	860	<0.003	<0.01	<0.005	78.1	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.3	<0.1	20
SZMW-2	08/03/2009	Recovery	<0.01	3.37	1	480	35.5	860	<0.003	<0.01	<0.005	77	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.1	<0.1	10
SZMW-2	08/06/2009	Recovery	<0.01	3.25	2	470	36.5	860	<0.003	<0.01	<0.005	78.5	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.1	<0.1	11
SZMW-2	08/11/2009	Recovery	<0.01	3.39	2	440	36.1	850	<0.003	<0.01	<0.005	79.5	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.1	<0.1	10
SZMW-2	08/13/2009	Recovery	<0.01	3.54	2	445	36.2	850	<0.003	<0.01	<0.005	81.7	<0.01	<0.01	<0.2	0.2	<0.001	<0.1	0.1	<0.1	10
SZMW-2	01/25/2010	Injection	0.01	3.46	0.3	497	23.1	740	<0.003	<0.01	<0.005	79	<0.01	<0.01	<0.2	0.25	<0.001	<0.1	0.04	<0.1	6
SZMW-2	02/22/2010	Injection	0.03	3.4	0.2	508	35.6	740	<0.003	0.01	<0.005	80	<0.01	<0.01	<0.2	0.26	<0.001	<0.1	0.08	<0.1	4
SZMW-2	04/05/2010	Storage	0.01	1.49	0.3	541	2.89	930	0.003	0.01	<0.005	28.9	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	<0.01	<0.1	2
SZMW-2	04/19/2010	Storage	0.03	1.11	1.4	772	3.43	1100	0.003	<0.01	<0.005	26.3	<0.01	<0.01	<0.2	0.09	<0.001	<0.1	<0.01	0.1	2
SZMW-2	04/27/2010	Recovery	0.02	3.44	2.2	541	52.1	690	0.005	0.01	<0.005	68.9	<0.01	0.04	<0.2	0.3	<0.001	<0.1	0.12	<0.1	11
SZMW-2	05/06/2010	Recovery	0.02	3.36	2	521	49.5	670	0.006	0.01	<0.005	64.4	<0.01	0.04	<0.2	0.28	<0.001	<0.1	0.09	<0.1	14

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-1	12/02/2010	Recovery	0.037	29.3	0.043	0.069	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/06/2010	Recovery	0.036	32	0.003	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/13/2010	Recovery	0.037	33	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/20/2010	Recovery	0.038	33.7	0.02	0.021	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	12/22/2010	Recovery	0.04	34.1	0.01	0.013	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/03/2011	Recovery	0.041	35.4	0.005	0.007	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/10/2011	Recovery	0.04	36.2	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/18/2011	Recovery	0.043	36.9	0.137	0.138	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/24/2011	Recovery	0.041	36.5	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/01/2011	Recovery	0.043	38.2	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/07/2011	Recovery	0.049	39.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/14/2011	Recovery	0.048	37.9	0.002	0.003	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	04/20/2009	Injection	0.47	20.6	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	04/27/2009	Storage	0.51	20.3	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/11/2009	Storage	0.55	20	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/18/2009	Recovery	0.85	19.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/21/2009	Recovery	0.995	19.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/26/2009	Recovery	2.33	18.7	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/29/2009	Recovery	2.43	19.3	0.04	0.09	0.01	0.04	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	06/22/2009	Storage	2.76	18.7	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	07/06/2009	Storage	2.35	18.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	07/20/2009	Storage	2.01	17.5	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	07/30/2009	Recovery	1.71	17.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	08/03/2009	Recovery	1.75	17.5	<0.001	0.01	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	08/06/2009	Recovery	1.84	17.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	08/11/2009	Recovery	1.79	17.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	08/13/2009	Recovery	1.84	17.4	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/25/2010	Injection	1.15	17.2	0.001	0.002	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	02/22/2010	Injection	1.89	17.4	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	04/05/2010	Storage	0.021	18.7	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-2	04/19/2010	Storage	0.029	23.1	0.004	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	04/27/2010	Recovery	2.67	17.3	0.007	0.007	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/06/2010	Recovery	2.52	17.1	0.004	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

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Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Chloride	Temp
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	°C
SZMW-1	12/02/2010	Recovery	0.001	<0.001	<0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.041			21.9
SZMW-1	12/06/2010	Recovery	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.04			21.8
SZMW-1	12/13/2010	Recovery	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.038			20.4
SZMW-1	12/20/2010	Recovery	<0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.038			21.6
SZMW-1	12/22/2010	Recovery	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.038			22.7
SZMW-1	01/03/2011	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.033			21.8
SZMW-1	01/10/2011	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.035			22.5
SZMW-1	01/18/2011	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	7.5	<0.3	<0.001	0.035			22.5
SZMW-1	01/24/2011	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.032			21.6
SZMW-1	02/01/2011	Recovery	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.034			22.7
SZMW-1	02/07/2011	Recovery	<0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.031			22.1
SZMW-1	02/14/2011	Recovery	<0.001	<0.001	0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.031			22.3
SZMW-2	04/20/2009	Injection	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.1	27	200	23.7
SZMW-2	04/27/2009	Storage	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.1	27	190	23.4
SZMW-2	05/11/2009	Storage	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.11	33	190	24.2
SZMW-2	05/18/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.14			23.4
SZMW-2	05/21/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.165	29	180	23.5
SZMW-2	05/26/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.17			24
SZMW-2	05/29/2009	Recovery	<0.001	<0.001	<0.02	0.01	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.18			23.9
SZMW-2	06/22/2009	Storage	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.21	31	160	24
SZMW-2	07/06/2009	Storage	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.26	33	160	23.9
SZMW-2	07/20/2009	Storage	<0.001	<0.001	<0.02	0.02	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.27	31	150	23.4
SZMW-2	07/30/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.3	32	140	24.2
SZMW-2	08/03/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.3			24.2
SZMW-2	08/06/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.29	30	140	24.2
SZMW-2	08/11/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.29	31	140	23.6
SZMW-2	08/13/2009	Recovery	<0.001	<0.001	<0.02	0.03	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.3			23.6
SZMW-2	01/25/2010	Injection	<0.001	<0.001	<0.02	0.031	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.285	29	130	23
SZMW-2	02/22/2010	Injection	<0.001	<0.001	<0.02	0.031	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.277	31	140	23.1
SZMW-2	04/05/2010	Storage	<0.001	<0.001	<0.02	0.014	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.076	31	130	23.4
SZMW-2	04/19/2010	Storage	<0.001	<0.001	<0.02	0.009	<0.002	<0.3	<0.002	<0.2	<0.001	0.04	<0.3	<0.001	0.062	29	130	23.1
SZMW-2	04/27/2010	Recovery	<0.001	<0.001	<0.02	0.025	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.243	30	130	23.7
SZMW-2	05/06/2010	Recovery	<0.001	<0.001	<0.02	0.022	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.237			23.6

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	pH	ORP	Conductivity	DO
			std. units	mV	µS/cm	mg/L
SZMW-1	12/02/2010	Recovery	7.81	-228.2	1506	0.76
SZMW-1	12/06/2010	Recovery	7.73	-231.2		0.67
SZMW-1	12/13/2010	Recovery	7.9	-222.7		0.79
SZMW-1	12/20/2010	Recovery	7.74	-230.8		0.67
SZMW-1	12/22/2010	Recovery	7.68	-212.6		0.61
SZMW-1	01/03/2011	Recovery	7.66	-234.8		0.89
SZMW-1	01/10/2011	Recovery	7.59	-232.2		0.75
SZMW-1	01/18/2011	Recovery	7.82	-236		0.69
SZMW-1	01/24/2011	Recovery	7.73	-239.3		0.65
SZMW-1	02/01/2011	Recovery	7.46	-236.9		0.65
SZMW-1	02/07/2011	Recovery	7.5	-235.1		0.59
SZMW-1	02/14/2011	Recovery	7.44	-239.1		0.79
SZMW-2	04/20/2009	Injection	7.92	-240.4	927	0.48
SZMW-2	04/27/2009	Storage	7.87	-233.4	967	0.59
SZMW-2	05/11/2009	Storage	7.79	-222.6	973	0.64
SZMW-2	05/18/2009	Recovery	7.78	-213.1	978	0.67
SZMW-2	05/21/2009	Recovery	7.69	-197.6	968	0.64
SZMW-2	05/26/2009	Recovery	7.79	-179.1	964	0.58
SZMW-2	05/29/2009	Recovery	7.78	-167.9	913	1.06
SZMW-2	06/22/2009	Storage	7.9	-195.4	872	0.39
SZMW-2	07/06/2009	Storage	7.87	-171.1	882	1.27
SZMW-2	07/20/2009	Storage	7.53	-171.7	831	0.91
SZMW-2	07/30/2009	Recovery	7.75	-216.5	818	1.05
SZMW-2	08/03/2009	Recovery	7.79	-157.2	801	1.27
SZMW-2	08/06/2009	Recovery	7.75	-147.8	806	0.69
SZMW-2	08/11/2009	Recovery	7.83	-147.8	797	0.77
SZMW-2	08/13/2009	Recovery	7.76	-154.7	800	0.71
SZMW-2	01/25/2010	Injection	7.63	-164.7	862	1.14
SZMW-2	02/22/2010	Injection	7.81	-161.7	733	0.99
SZMW-2	04/05/2010	Storage	8.62	-157.8	761	1.13
SZMW-2	04/19/2010	Storage	8.26	-135.7	743	1.22
SZMW-2	04/27/2010	Recovery	8.05	-130.1	770	0.68
SZMW-2	05/06/2010	Recovery	8.28	-107.3	761	1.46

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Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-2	05/13/2010	Recovery	36	<0.1	80700	12100	35	5900	9640	47900	2	1.9	1.6	1.9	0.6	<10	<0.005	0.4	0.7	1.9	0.05
SZMW-2	05/20/2010	Recovery	33	<0.1	80800	11800	6	5700	8940	45100	2	1.8	1.5	1.6	0.6	<10	<0.005	0.3	1	1.4	0.04
SZMW-2	06/29/2010	Injection	21	<0.1	66100	10400	4	5500	6970	48800	2	1.5	1.1	0.9	1.5	30	<0.005	0.4	5.3	1	0.04
SZMW-2	07/26/2010	Injection	24	<0.1	62400	10300	5	5900	8120	48600	1	1.7	1	1.1	1.7	40	<0.005	0.3	1.4	0.8	0.04
SZMW-2	08/30/2010	Injection	23	<0.1	62000	9710	4	5500	7640	47700	1	1.4	1	0.8	1.4	20	<0.005	0.3	0.5	<0.5	0.04
SZMW-2	09/28/2010	Injection	22	<0.1	54000	9930	4	5500	7790	42100	1	1.5	1.1	0.9	1.3	20	<0.005	0.3	0.6	<0.5	0.04
SZMW-2	10/11/2010	Storage	21	<0.1	56800	10100	4	5500	7680	46300	1	1.6	1.1	0.8	1.3	20	<0.005	<0.3	0.6	<0.5	0.04
SZMW-2	10/14/2010	Storage	20	<0.1	55800	10100	4	5800	7420	47100	1	1.7	1.1	0.8	1.3	30	<0.005	0.3	1	<0.5	0.04
SZMW-2	10/25/2010	Storage	18	<0.1	53900	9930	4	5700	6870	47100	2	1.7	1.1	0.7	1.2	20	<0.005	1	85.2	7.5	0.04
SZMW-2	11/09/2010	Storage	18	<0.1	53200	9800	4	5800	6850	47600	1	1.7	1.1	0.7	1.1	30	<0.005	0.5	0.6	1.3	0.04
SZMW-2	11/16/2010	Storage	18	<0.1	53700	10100	4	5900	7040	45300	2	1.7	1.1	0.7	1.1	30	<0.005	0.4	4.4	1.5	0.04
SZMW-2	11/22/2010	Recovery	20	<0.1	54300	10200	4	5900	7290	46800	1	1.6	1	0.7	1.2	20	<0.005	0.3	1.8	0.6	0.04
SZMW-2	12/02/2010	Recovery	27	<0.1	55000	10300	4	6000	9060	45600	2	1.7	1.4	0.8	1	40	<0.005	0.5	0.6	1.5	0.04
SZMW-2	12/06/2010	Recovery	29	<0.1	52200	10700	7	5500	10000	47000	<1	1.2	1.1	<0.5	1.1	<10	<0.005	0.5	1	2.6	0.04
SZMW-2	12/13/2010	Recovery	29	<0.1	51400	10500	6	5400	9640	47800	<1	1.2	1.1	<0.5	1	<10	<0.005	0.5	1	2.9	0.04
SZMW-2	12/20/2010	Recovery	29	<0.1	51000	11100	5	5700	9810	46900	<1	1.2	1.2	<0.5	1	<10	<0.005	0.5	1.6	2.8	0.04
SZMW-2	12/22/2010	Recovery	28	<0.1	50000	11300	6	5800	9670	46400	<1	1.3	1.2	<0.5	1.1	10	<0.005	0.5	1.1	13	0.04
SZMW-2	01/03/2011	Recovery	26	<0.1	51600	10600	7	5400	8880	45300	<1	1.2	1.2	<0.5	0.9	20	<0.005	0.6	1	3.6	0.04
SZMW-2	01/10/2011	Recovery	28	<0.1	49500	10600	6	5500	9330	47300	<1	1.3	1.3	<0.5	1.3	20	<0.005	0.7	1.3	3.1	0.05
SZMW-2	01/18/2011	Recovery	27	<0.1	47500	10400	9	5500	9160	46200	<1	1.2	1.3	<0.5	0.9	20	<0.005	0.5	1.1	3.1	0.04
SZMW-2	01/24/2011	Recovery	27	<0.1	49800	10300	10	5400	9040	47200	<1	1.3	1.3	<0.5	0.8	30	<0.005	0.5	0.9	3.2	0.04
SZMW-2	02/01/2011	Recovery	31	<0.1	49100	10500	6	5400	9950	45600	<1	1.2	1.4	<0.5	0.8	30	<0.005	0.5	0.9	2.7	0.05
SZMW-2	02/07/2011	Recovery	31	<0.1	50200	10500	5	5500	9970	45800	<1	1.3	1.3	<0.5	0.8	30	<0.005	0.5	1.1	3.1	0.05
SZMW-2	02/14/2011	Recovery	32	<0.1	52100	10500	4	5500	10400	45600	<1	1.2	1.3	<0.5	0.8	30	<0.005	0.5	0.9	2.3	0.05

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-2	05/13/2010	Recovery	0.02	3.17	2.2	524	45.7	670	0.006	0.01	<0.005	61.9	<0.01	0.04	<0.2	0.27	<0.001	0.1	0.09	<0.1	15
SZMW-2	05/20/2010	Recovery	0.02	2.97	1.8	508	42.7	660	0.007	0.01	<0.005	57.8	<0.01	0.03	<0.2	0.26	<0.001	0.1	0.08	<0.1	13
SZMW-2	06/29/2010	Injection	0.02	2.31	2.1	532	30.9	600	0.004	0.02	<0.005	39.7	<0.01	<0.01	<0.2	0.18	<0.001	0.3	0.06	<0.1	15
SZMW-2	07/26/2010	Injection	0.02	2.24	2	492	35.4	590	0.004	0.02	<0.005	36.7	<0.01	<0.01	<0.2	0.16	<0.001	0.1	0.05	<0.1	15
SZMW-2	08/30/2010	Injection	0.02	2.07	2	433	35.4	590	0.004	0.01	<0.005	31.7	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	0.02	<0.1	33
SZMW-2	09/28/2010	Injection	0.02	1.94	2	431	33.9	530	0.004	0.01	<0.005	28.9	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	0.03	<0.1	33
SZMW-2	10/11/2010	Storage	0.02	1.9	1.7	419	32.9	540	0.003	0.01	<0.005	28.1	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	0.03	<0.1	34
SZMW-2	10/14/2010	Storage	0.02	1.87	1.6	411	32.2	550	0.004	0.01	<0.005	27.2	<0.01	<0.01	<0.2	0.11	<0.001	<0.1	0.03	<0.1	29
SZMW-2	10/25/2010	Storage	0.02	1.91	1.8	393	29.2	520	0.004	0.01	<0.005	24.7	<0.01	<0.01	<0.2	0.1	<0.001	5.5	0.17	<0.1	33
SZMW-2	11/09/2010	Storage	0.02	1.89	1.5	364	27.8	520	0.004	0.01	<0.005	24	<0.01	<0.01	<0.2	0.09	<0.001	<0.1	0.07	<0.1	9
SZMW-2	11/16/2010	Storage	0.02	1.95	1.6	365	28.4	510	0.004	0.01	<0.005	24.8	<0.01	<0.01	<0.2	0.1	<0.001	<0.1	0.07	<0.1	8
SZMW-2	11/22/2010	Recovery	0.02	1.85	1.8	420	30	520	0.004	0.01	<0.005	25.7	<0.01	<0.01	<0.2	0.11	<0.001	<0.1	0.06	<0.1	25
SZMW-2	12/02/2010	Recovery	0.02	1.95	1.5	365	40.8	500	0.004	0.02	<0.005	25.6	<0.01	<0.01	<0.2	0.11	<0.001	<0.1	0.09	<0.1	8
SZMW-2	12/06/2010	Recovery	0.02	1.77	<0.2	373	45.7	570	0.003	0.02	<0.005	28.6	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	0.09	<0.1	13
SZMW-2	12/13/2010	Recovery	0.02	1.83	<0.2	355	44.8	570	0.003	0.01	<0.005	28.1	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	0.1	<0.1	13
SZMW-2	12/20/2010	Recovery	0.02	1.98	<0.2	374	45.1	560	0.003	0.01	<0.005	29.7	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	0.11	<0.1	14
SZMW-2	12/22/2010	Recovery	0.02	2.06	<0.2	382	44.1	550	0.003	0.01	<0.005	30	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	0.13	<0.1	13
SZMW-2	01/03/2011	Recovery	0.02	2	<0.2	351	40.9	490	0.003	0.01	<0.005	28.7	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	0.12	<0.1	13
SZMW-2	01/10/2011	Recovery	0.02	2.08	<0.2	358	43.2	540	0.003	0.01	<0.005	29.4	<0.01	<0.01	<0.2	0.06	<0.001	<0.1	0.16	<0.1	12
SZMW-2	01/18/2011	Recovery	0.02	1.93	<0.2	325	41.8	520	0.004	0.01	<0.005	29.7	<0.01	<0.01	<0.2	0.07	<0.001	0.1	0.16	<0.1	10
SZMW-2	01/24/2011	Recovery	0.02	2.07	<0.2	321	41.9	540	0.003	0.01	<0.005	28.3	<0.01	<0.01	<0.2	0.07	<0.001	0.1	0.15	<0.1	13
SZMW-2	02/01/2011	Recovery	0.02	2.08	<0.2	322	46.7	520	0.003	0.01	<0.005	29	<0.01	<0.01	<0.2	0.06	<0.001	0.1	0.15	<0.1	14
SZMW-2	02/07/2011	Recovery	0.02	2.08	<0.2	320	47.5	437	0.003	0.01	<0.005	29	<0.01	<0.01	<0.2	0.06	<0.001	0.1	0.15	<0.1	14
SZMW-2	02/14/2011	Recovery	0.02	2.11	<0.2	320	49.6	490	0.003	0.01	<0.005	29.1	<0.01	<0.01	<0.2	0.06	<0.001	0.1	0.15	<0.1	15

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Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
SZMW-2	05/13/2010	Recovery	2.38	17.2	0.002	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/20/2010	Recovery	2.16	17	0.01	0.008	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	06/29/2010	Injection	1.54	16.1	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	07/26/2010	Injection	1.82	16.2	0.004	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	08/30/2010	Injection	1.79	16	<0.001	<0.001	<0.001	0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	09/28/2010	Injection	1.71	16	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	10/11/2010	Storage	1.66	15.6	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	10/14/2010	Storage	1.59	15.5	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	10/25/2010	Storage	1.43	15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	11/09/2010	Storage	1.35	14.9	0.005	0.002	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	11/16/2010	Storage	1.42	15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	11/22/2010	Recovery	1.48	15.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	12/02/2010	Recovery	2.15	15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	12/06/2010	Recovery	2.27	15.8	0.002	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	12/13/2010	Recovery	2.23	15.4	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	12/20/2010	Recovery	2.23	16	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	12/22/2010	Recovery	2.17	16.2	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/03/2011	Recovery	2.05	15.5	0.002	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/10/2011	Recovery	2.15	15.5	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/18/2011	Recovery	2.09	15.2	0.002	0.004	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/24/2011	Recovery	2.1	14.8	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	02/01/2011	Recovery	2.36	15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	02/07/2011	Recovery	2.39	15.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	02/14/2011	Recovery	2.47	15	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001

FLORIDA GEOLOGICAL SURVEY

Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Chloride	Temp
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	°C
SZMW-2	05/13/2010	Recovery	<0.001	<0.001	<0.02	0.022	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	<0.001	0.234			23.8
SZMW-2	05/20/2010	Recovery	<0.001	<0.001	<0.02	0.022	<0.002	<0.3	<0.002	<0.2	<0.001	0.12	<0.3	<0.001	0.229			23.8
SZMW-2	06/29/2010	Injection	0.001	<0.001	<0.02	0.018	<0.002	<0.3	<0.002	<0.2	<0.001	0.29	<0.3	<0.001	0.212	25	110	23.8
SZMW-2	07/26/2010	Injection	0.001	<0.001	<0.02	0.015	<0.002	<0.3	<0.002	<0.2	<0.001	0.09	<0.3	<0.001	0.204	25	110	24
SZMW-2	08/30/2010	Injection	<0.001	<0.001	<0.02	0.015	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.201	25	110	24
SZMW-2	09/28/2010	Injection	0.001	<0.001	<0.02	0.014	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.19	23	100	24.2
SZMW-2	10/11/2010	Storage	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.187	23	100	23.9
SZMW-2	10/14/2010	Storage	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.06	<0.3	<0.001	0.182			23.8
SZMW-2	10/25/2010	Storage	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	6.74	<0.3	<0.001	0.185	24	100	23.9
SZMW-2	11/09/2010	Storage	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.181	22	98	23.3
SZMW-2	11/16/2010	Storage	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.19	22	96	23.6
SZMW-2	11/22/2010	Recovery	0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.177	21	93	23.6
SZMW-2	12/02/2010	Recovery	0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.195			22.9
SZMW-2	12/06/2010	Recovery	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.19			22.8
SZMW-2	12/13/2010	Recovery	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.194			22.5
SZMW-2	12/20/2010	Recovery	<0.001	<0.001	<0.02	0.011	<0.002	<0.3	<0.002	<0.2	<0.001	0.03	<0.3	<0.001	0.194			22.8
SZMW-2	12/22/2010	Recovery	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.88	<0.3	<0.001	0.204			23.2
SZMW-2	01/03/2011	Recovery	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.205			22.9
SZMW-2	01/10/2011	Recovery	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.204			23.4
SZMW-2	01/18/2011	Recovery	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.203			23.2
SZMW-2	01/24/2011	Recovery	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.199			22.9
SZMW-2	02/01/2011	Recovery	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.199			23.3
SZMW-2	02/07/2011	Recovery	<0.001	<0.001	<0.02	0.012	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.201			22.8
SZMW-2	02/14/2011	Recovery	<0.001	<0.001	<0.02	0.013	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.209			22.9

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Sanford ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	pH	ORP	Conductivity	DO
			std. units	mV	µS/cm	mg/L
SZMW-2	05/13/2010	Recovery	8.22	-142.1	755	0.84
SZMW-2	05/20/2010	Recovery	8.07	-160.3	756	0.59
SZMW-2	06/29/2010	Injection	7.8	-169.3	676	0.54
SZMW-2	07/26/2010	Injection	7.98	-175.4	689	0.54
SZMW-2	08/30/2010	Injection	8.02	-199.6	674	0.4
SZMW-2	09/28/2010	Injection	8.19	-201.7	676	0.51
SZMW-2	10/11/2010	Storage	8.25	-225.1	667	0.4
SZMW-2	10/14/2010	Storage	8.28	-213.4	664	0.51
SZMW-2	10/25/2010	Storage	8.15	-218.9	655	0.46
SZMW-2	11/09/2010	Storage	8.19	-188.6	640	0.5
SZMW-2	11/16/2010	Storage	8.09	-189.3	632	0.47
SZMW-2	11/22/2010	Recovery	8.12	-195	632	0.49
SZMW-2	12/02/2010	Recovery	8.25	-187.4	636	0.48
SZMW-2	12/06/2010	Recovery	8.23	-160.1		0.63
SZMW-2	12/13/2010	Recovery	8.34	-173.5		0.67
SZMW-2	12/20/2010	Recovery	8.22	-171		0.54
SZMW-2	12/22/2010	Recovery	8.11	-172.4		0.42
SZMW-2	01/03/2011	Recovery	8.02	-152.8		0.41
SZMW-2	01/10/2011	Recovery	7.93	-153.9		0.37
SZMW-2	01/18/2011	Recovery	8.19	-117.5		0.64
SZMW-2	01/24/2011	Recovery	8.33	-131.7		0.48
SZMW-2	02/01/2011	Recovery	7.77	-128.3		0.44
SZMW-2	02/07/2011	Recovery	7.82	-120.5		0.51
SZMW-2	02/14/2011	Recovery	7.85	-127.6		0.52

FLORIDA GEOLOGICAL SURVEY

Seminole - Markham ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Li	Be	Na	Mg	Al	Si	K	Ca	Sc	Ti	V	Cr	Mn	Fe	Co	Ni	Cu	Zn	Ga
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	03/02/2010	Storage	8	<0.1	315000	41700	3	5300	12800	84900	2	1.7	0.4	0.9	2	20	0.023	0.8	1.2	1.4	0.01
ASR	03/22/2010	Injection	6	<0.1	216000	30800	<2	4700	9200	69700	1	1.3	4.9	<0.5	3.2	30	0.109	12.5	2.7	5	0.08
ASR	04/05/2010	Injection	1	<0.1	32100	9150	4	4500	1530	48200	1	1.3	0.3	1	4.6	40	<0.005	2.1	15.8	13.5	0.01
SZMW-1	03/02/2010	Storage	14	<0.1	295000	34100	3	4200	12800	70500	1	1.2	0.3	1	3.7	400	0.045	0.9	1.3	2.2	0.02
SZMW-1	03/15/2010	Injection	14	<0.1	294000	34000	<2	4400	12900	71700	2	1.3	0.3	0.9	4.4	310	0.019	0.7	1.3	1.5	0.03
SZMW-1	03/29/2010	Injection	6	<0.1	229000	32300	25	4900	9560	72600	1	1.2	<0.1	<0.5	2	50	<0.005	0.6	5.8	13	0.02
SZMW-1	04/19/2010	Injection	12	<0.1	277000	32100	<2	4000	11700	69100	1	1	<0.1	<0.5	4.2	400	<0.005	0.7	2.5	0.7	0.04
SZMW-1	05/06/2010	Injection	13	<0.1	283000	31900	3	3800	11600	69900	1	1	<0.1	<0.5	3.1	60	<0.005	0.7	3.3	4	0.03
SZMW-1	05/17/2010	Injection	16	<0.1	310000	33500	3	4500	17300	72800	<1	1.1	<0.1	<0.5	3.2	150	0.02	0.9	<0.2	0.7	0.03
SZMW-1	06/17/2010	Injection	16	<0.1	310000	32900	4	4400	17300	73200	<1	0.8	<0.1	<0.5	3	130	0.032	1.5	<0.2	9.9	0.02
SZMW-1	01/24/2011	Injection	64	<0.1	116000	52	384	3200	28700	150000	<1	0.6	0.8	<0.5	1.5	260	0.022	1.6	0.5	1.1	0.63
SZMW-1	01/31/2011	Injection	65	<0.1	117000	63	435	3300	28600	147000	<1	0.4	0.9	<0.5	0.7	110	0.043	1	<0.2	0.7	0.68
SZMW-1	02/21/2011	Storage	63	<0.1	117000	92	480	3300	27700	143000	<1	0.8	0.9	<0.5	0.2	80	0.025	1.1	<0.2	0.7	0.73
SZMW-1	02/28/2011	Recovery	62	<0.1	119000	99	487	3400	27800	144000	<1	0.5	0.8	<0.5	0.2	60	0.044	0.7	0.6	2.6	0.71
SZMW-2	03/02/2010	Storage	7	<0.1	272000	36500	77	5400	11200	72600	2	1.7	0.4	0.8	2.5	370	0.012	0.7	1.8	43.1	0.04
SZMW-2	03/15/2010	Injection	7	<0.1	256000	35500	24	5100	10600	74900	2	1.8	0.4	1.1	2.2	50	0.007	0.4	1	4	0.02
SZMW-2	03/29/2010	Injection	8	<0.1	236000	32600	24	5300	9910	67800	2	1.4	<0.1	<0.5	1.9	60	<0.005	0.5	3	6.8	0.03
SZMW-2	04/19/2010	Injection	9	<0.1	234000	33000	15	5500	10600	72900	2	1.4	<0.1	<0.5	2	<10	<0.005	0.6	2.2	4.8	0.03
SZMW-2	05/06/2010	Injection	9	<0.1	239000	33200	16	5500	10400	70500	2	1.6	<0.1	<0.5	1.9	<10	<0.005	0.7	1.9	1.6	0.03
SZMW-2	05/17/2010	Injection	8	<0.1	271000	35700	21	5800	14200	76600	1	1	<0.1	<0.5	2.1	120	0.014	0.7	<0.2	1.9	0.02
SZMW-2	06/17/2010	Injection	8	<0.1	272000	34900	22	5600	14300	74500	1	1	<0.1	<0.5	1.9	60	0.035	0.5	<0.2	1.8	0.02
SZMW-2	01/24/2011	Injection	25	<0.1	186000	13200	6	2600	7070	29600	<1	0.5	<0.1	<0.5	105	100	0.019	0.5	0.5	4.3	0.01
SZMW-2	01/31/2011	Injection	27	<0.1	186000	12700	3	2500	7010	29800	<1	0.6	<0.1	<0.5	93.9	60	0.011	0.7	<0.2	0.6	0.01
SZMW-2	02/21/2011	Storage	29	<0.1	186000	12000	6	2300	7670	28300	<1	0.4	<0.1	<0.5	69.9	30	<0.005	0.3	2.2	4.5	0.01

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Seminole - Markham ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Ge	As	Se	Br	Rb	Sr	Y	Zr	Nb	Mo	Ru	Pd	Ag	Cd	In	Sn	Sb	Te	I
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	03/02/2010	Storage	0.02	0.65	2.1	2250	4.53	2000	0.007	0.01	<0.005	7.7	<0.01	0.01	<0.2	0.03	<0.001	<0.1	<0.01	0.1	2
ASR	03/22/2010	Injection	0.02	57.5	<0.2	1720	4.34	1410	0.012	0.03	<0.005	487	0.01	<0.01	<0.2	1.56	<0.001	0.1	5.89	0.1	6
ASR	04/05/2010	Injection	0.01	0.21	<0.2	175	2.3	199	0.006	0.04	<0.005	4.4	<0.01	<0.01	<0.2	0.03	<0.001	<0.1	<0.01	<0.1	5
SZMW-1	03/02/2010	Storage	0.02	22.6	2.3	2020	6.58	1800	0.005	0.01	<0.005	80.6	<0.01	<0.01	<0.2	0.26	<0.001	<0.1	<0.01	0.1	5
SZMW-1	03/15/2010	Injection	0.02	22.5	1.9	2200	6.76	1800	0.004	0.01	<0.005	77.5	<0.01	<0.01	<0.2	0.25	<0.001	<0.1	<0.01	0.1	4
SZMW-1	03/29/2010	Injection	0.02	<0.03	<0.2	1790	4.27	1590	0.014	0.04	<0.005	6.1	<0.01	0.01	<0.2	0.69	<0.001	<0.1	<0.01	<0.1	9
SZMW-1	04/19/2010	Injection	0.03	18.2	<0.2	1920	6.76	1670	0.012	0.01	<0.005	65.9	<0.01	<0.01	<0.2	0.24	<0.001	<0.1	0.01	0.1	7
SZMW-1	05/06/2010	Injection	0.02	18	<0.2	1970	6.68	1670	0.013	0.03	<0.005	70.9	<0.01	<0.01	<0.2	0.6	<0.001	<0.1	0.01	0.1	5
SZMW-1	05/17/2010	Injection	0.01	17.8	<0.2	2060	6.58	1780	0.003	<0.01	<0.005	72	<0.01	0.01	<0.2	0.09	<0.001	<0.1	0.03	0.1	7
SZMW-1	06/17/2010	Injection	0.02	18.9	<0.2	2130	6.65	1790	0.008	0.01	<0.005	78.6	<0.01	<0.01	<0.2	0.12	<0.001	<0.1	0.03	<0.1	7
SZMW-1	01/24/2011	Injection	0.01	1.68	0.5	977	79	1260	0.006	0.02	0.005	60.9	0.01	10	<0.2	0.09	<0.001	<0.1	2.02	10	7
SZMW-1	01/31/2011	Injection	0.01	1.57	<0.2	993	77.8	1270	0.005	0.01	<0.005	60.3	0.01	10	<0.2	0.06	<0.001	<0.1	2.27	10	9
SZMW-1	02/21/2011	Storage	0.07	1.42	0.9	986	75.4	1260	0.003	<0.01	<0.005	56.4	0.01	10	<0.2	0.07	<0.001	<0.1	2.76	10	9
SZMW-1	02/28/2011	Recovery	0.06	1.09	1	971	74.9	1260	0.003	<0.01	<0.005	53.4	0.01	10	<0.2	0.05	<0.001	<0.1	2.69	10	9
SZMW-2	03/02/2010	Storage	0.03	0.63	1.6	1960	4.21	1770	0.008	0.01	<0.005	6.2	<0.01	0.01	<0.2	0.03	<0.001	0.1	0.07	0.1	5
SZMW-2	03/15/2010	Injection	0.02	0.5	1.4	1830	4.07	1730	0.005	<0.01	<0.005	5	<0.01	<0.01	<0.2	0.02	<0.001	<0.1	<0.01	0.1	4
SZMW-2	03/29/2010	Injection	0.03	<0.03	<0.2	1870	4.42	1580	0.013	0.02	<0.005	6.5	<0.01	<0.01	<0.2	0.16	<0.001	<0.1	<0.01	<0.1	5
SZMW-2	04/19/2010	Injection	0.03	<0.03	<0.2	1940	4.48	1600	0.011	0.01	<0.005	8.2	<0.01	<0.01	<0.2	0.07	<0.001	<0.1	<0.01	0.1	4
SZMW-2	05/06/2010	Injection	0.03	<0.03	<0.2	1920	4.37	1590	0.012	0.02	<0.005	9.8	<0.01	<0.01	<0.2	0.04	<0.001	<0.1	<0.01	0.1	4
SZMW-2	05/17/2010	Injection	0.02	<0.03	<0.2	1940	4.17	1730	0.007	<0.01	<0.005	10.1	0.01	10	<0.2	0.22	<0.001	<0.1	<0.01	10	8
SZMW-2	06/17/2010	Injection	0.03	<0.03	<0.2	1950	4.41	1680	0.004	0.01	<0.005	13.3	0.01	10	<0.2	0.02	<0.001	<0.1	<0.01	10	9
SZMW-2	01/24/2011	Injection	0.04	0.08	<0.2	1050	9.06	580	0.01	0.01	<0.005	281	0.01	10	<0.2	0.4	<0.001	0.2	0.37	10	10
SZMW-2	01/31/2011	Injection	0.04	0.13	<0.2	1020	9.49	610	0.004	<0.01	<0.005	284	0.01	10	<0.2	0.42	<0.001	0.2	0.34	10	9
SZMW-2	02/21/2011	Storage	0.06	<0.03	<0.2	1050	11.1	670	0.004	0.02	<0.005	261	0.03	10	<0.2	0.35	0.001	0.2	0.34	10	10

FLORIDA GEOLOGICAL SURVEY

Seminole - Markham ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Cs	Ba	La	Ce	Pr	Nd	Sm	Eu	Gd	Tb	Dy	Ho	Er	Tm	Yb	Lu
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
ASR	03/02/2010	Storage	0.059	11.8	0.002	0.002	<0.001	0.003	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	03/22/2010	Injection	0.063	12	<0.001	<0.001	<0.001	0.002	0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
ASR	04/05/2010	Injection	0.045	9.3	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/02/2010	Storage	0.074	22.3	0.001	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/15/2010	Injection	0.077	22.9	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	03/29/2010	Injection	0.049	11.8	<0.001	<0.001	<0.001	0.003	0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	04/19/2010	Injection	0.078	24.3	<0.001	<0.001	<0.001	<0.001	0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/06/2010	Injection	0.082	25.2	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	05/17/2010	Injection	0.078	24	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-1	06/17/2010	Injection	0.076	24.5	0.004	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/24/2011	Injection	0.488	102	0.004	0.006	0.001	0.004	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	01/31/2011	Injection	0.463	99.6	0.001	0.002	<0.001	0.004	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/21/2011	Storage	0.475	94.3	0.001	0.002	<0.001	0.004	0.002	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-1	02/28/2011	Recovery	0.447	91.9	0.007	0.007	<0.001	0.004	0.002	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-2	03/02/2010	Storage	0.054	11.1	0.002	0.004	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	03/15/2010	Injection	0.043	10.7	<0.001	0.001	<0.001	0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	03/29/2010	Injection	0.048	12.3	<0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	04/19/2010	Injection	0.049	12.6	<0.001	<0.001	<0.001	0.002	0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/06/2010	Injection	0.049	12.4	<0.001	<0.001	<0.001	0.002	0.001	<0.001	0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	05/17/2010	Injection	0.046	11.3	<0.001	0.003	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	06/17/2010	Injection	0.047	11.3	0.003	0.005	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
SZMW-2	01/24/2011	Injection	0.285	41.4	0.01	0.016	0.001	0.009	0.007	0.001	0.004	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
SZMW-2	01/31/2011	Injection	0.358	41	0.003	0.009	<0.001	0.004	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001
SZMW-2	02/21/2011	Storage	0.474	41.4	0.004	0.008	<0.001	0.004	<0.001	0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001

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Seminole - Markham ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	Hf	Ta	W	Re	Os	Pt	Au	Hg	Tl	Pb	Bi	Th	U	Sulfate	Chloride	Temp
			µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	mg/L	mg/L	°C
ASR	03/02/2010	Storage	<0.001	<0.001	<0.02	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.034			
ASR	03/22/2010	Injection	<0.001	<0.001	0.02	0.255	<0.002	<0.3	<0.002	<0.2	0.03	<0.01	<0.3	<0.001	1.97			
ASR	04/05/2010	Injection	0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	0.003	0.04	<0.3	<0.001	0.014			
SZMW-1	03/02/2010	Storage	<0.001	<0.001	0.5	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.129			
SZMW-1	03/15/2010	Injection	<0.001	<0.001	0.5	0.008	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.26	16	73	22.2
SZMW-1	03/29/2010	Injection	0.002	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.62	<0.3	<0.001	0.023	16	72	23.3
SZMW-1	04/19/2010	Injection	<0.001	<0.001	0.49	0.006	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.231	38	210	23.2
SZMW-1	05/06/2010	Injection	<0.001	<0.001	0.52	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.01	<0.3	<0.001	0.192			23.6
SZMW-1	05/17/2010	Injection	0.001	<0.001	0.48	0.005	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	0.001	0.165	71	390	23.4
SZMW-1	06/17/2010	Injection	<0.001	<0.001	0.49	0.007	<0.002	<0.3	<0.002	<0.2	<0.001	0.09	<0.3	<0.001	0.156			
SZMW-1	01/24/2011	Injection	<0.001	<0.001	0.26	0.045	<0.002	<0.3	<0.002	<0.2	0.001	0.03	<0.3	<0.001	<0.001	84	460	21.6
SZMW-1	01/31/2011	Injection	<0.001	<0.001	0.29	0.044	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	<0.001			
SZMW-1	02/21/2011	Storage	<0.001	<0.001	0.34	0.039	<0.002	<0.3	<0.002	<0.2	0.001	<0.01	<0.3	<0.001	<0.001			
SZMW-1	02/28/2011	Recovery	<0.001	<0.001	0.35	0.043	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	<0.001			
SZMW-2	03/02/2010	Storage	<0.001	<0.001	0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.04			
SZMW-2	03/15/2010	Injection	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.02	30	130	22.9
SZMW-2	03/29/2010	Injection	<0.001	<0.001	<0.02	<0.001	<0.002	<0.3	<0.002	<0.2	<0.001	0.1	<0.3	<0.001	0.023	31	130	23.3
SZMW-2	04/19/2010	Injection	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.021	29	130	23.1
SZMW-2	05/06/2010	Injection	0.001	<0.001	0.17	0.001	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.02			23.6
SZMW-2	05/17/2010	Injection	<0.001	<0.001	<0.02	0.002	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.018	28	120	23.7
SZMW-2	06/17/2010	Injection	<0.001	<0.001	<0.02	0.003	<0.002	<0.3	<0.002	<0.2	<0.001	<0.01	<0.3	<0.001	0.016			
SZMW-2	01/24/2011	Injection	<0.001	<0.001	0.34	0.187	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.028	21	86	22.9
SZMW-2	01/31/2011	Injection	<0.001	<0.001	0.28	0.187	<0.002	<0.3	<0.002	<0.2	<0.001	0.02	<0.3	<0.001	0.02			
SZMW-2	02/21/2011	Storage	<0.001	<0.001	0.24	0.16	<0.002	<0.3	<0.002	<0.2	<0.001	0.05	<0.3	<0.001	0.009			

FLORIDA GEOLOGICAL SURVEY

Seminole - Markham ASR; Blanks = no data, < = below detection limit.

Well Name	Date Collected	Phase	pH	ORP	Conductivity	DO
			std. units	mV	µS/cm	mg/L
ASR	03/02/2010	Storage				
ASR	03/22/2010	Injection				
ASR	04/05/2010	Injection				
SZMW-1	03/02/2010	Storage				
SZMW-1	03/15/2010	Injection	7.93	-144.3	528	1.26
SZMW-1	03/29/2010	Injection	7.83	-119.1	536	0.61
SZMW-1	04/19/2010	Injection	7.72	-191.5	987	0.53
SZMW-1	05/06/2010	Injection	7.68	-176	1412	0.66
SZMW-1	05/17/2010	Injection	7.77	-212	1556	0.64
SZMW-1	06/17/2010	Injection				
SZMW-1	01/24/2011	Injection	7.73	-239.3	1750	0.65
SZMW-1	01/31/2011	Injection				
SZMW-1	02/21/2011	Storage				
SZMW-1	02/28/2011	Recovery				
SZMW-2	03/02/2010	Storage				
SZMW-2	03/15/2010	Injection	8.03	-153.7	737	1.79
SZMW-2	03/29/2010	Injection	8.35	-149.4	767	0.63
SZMW-2	04/19/2010	Injection	8.26	-135.7	743	1.22
SZMW-2	05/06/2010	Injection	8.28	-107.3	761	1.46
SZMW-2	05/17/2010	Injection	8.2	-139.6	759	0.85
SZMW-2	06/17/2010	Injection				
SZMW-2	01/24/2011	Injection	8.33	-131.7	586	0.48
SZMW-2	01/31/2011	Injection				
SZMW-2	02/21/2011	Storage				