

990 Hammond Drive, Suite 400
Atlanta, Georgia 30328

T: 770.394.2997
F: 770.396.9495



September 27, 2016

Letter Report

Mr. John Maddox
Environmental Specialist
Response and Remediation Program
Georgia Environmental Protection Division
2 Martin Luther King, Jr. Drive, S.E., Suite 1462
Atlanta, Georgia 30334

149071.200

Subject: Semiannual Progress Report
Voluntary Remediation Program
Former MacGregor Golf Company (HSI Site No. 10398)
Albany, Dougherty County, Georgia

Dear Mr. Maddox:

This Semiannual Progress Report for the Former MacGregor Golf Company Site (Site) was prepared by Brown and Caldwell (BC) on behalf of Albany Partners, LLC, Albany Sport Co., and Brunswick Corporation (the Group) for submittal to the Response and Remediation Program of the Land Protection Branch of the Georgia Environmental Protection Division (EPD). The Site is located at 1601 South Slappey Boulevard in Albany, Dougherty County, Georgia (Figure 1). The Site is a participant in EPD's Voluntary Remediation Program (VRP) and is listed on EPD's Hazardous Site Inventory (HSI) as Site No. 10398. This report describes the work performed related to the Site from the last semiannual progress report dated January 28, 2016 through July 30, 2016.

Work Performed and Results This Period

Work performed during this reporting period consisted of the following tasks:

- Compliance monitoring in April 2016 involving groundwater level measurements and collection of groundwater samples from monitoring wells MW-4, MW-11, MW-19, MW-24, MW-27, and MW-28.
- Continued discussions with the owner of the neighboring property owned by Taylor Real Estate Enterprises, LP (Taylor) regarding a uniform environmental covenant (UEC) for the property due to chromium detections in groundwater on that property.

These activities are discussed in the following sections.

Compliance Monitoring

Groundwater level measurements and sampling were performed as discussed below.

Groundwater Level Measurements

Groundwater levels were measured on April 5, 2016, in all shallow and deep aquifer wells that could be located, including those located on the Spartan property to the north and the Taylor property to the south (Figure 2). The depth to groundwater was measured in 17 upper water bearing zone wells (MW-1 through MW-4, MW-10 through MW-14, MW-18, MW-19, MW-22, MW-23, MW-24, MW-25, MW-27, and MW-28) and 10 lower water bearing zone wells (MW-5 through MW-7, MW-9, MW-15 through MW-17, MW-26, Spartan MW-1 and Spartan MW-2). All measurements were completed using a Heron 100-foot water level meter, and the measured depths to water were recorded (Table 1). The downhole portion of the water level meter was decontaminated with Alconox® and rinsed with distilled water between wells.

The measured depths to water and the surveyed elevations of the monitoring wells were used to calculate the groundwater elevations and prepare potentiometric surface maps for the upper and lower water bearing zones (Figures 3 and 4). Consistent with recent sampling events, groundwater in the upper water bearing zone continues to flow predominantly to the south (Figure 3) and groundwater in the lower water bearing zone continues to flow predominantly toward the east (Figure 4).

Outside of localized water level fluctuations, the groundwater gradients observed in this reporting period also were similar to those observed in the previous reporting period.

Groundwater Sampling

The work performed and analytical results from the April 2016 sampling event are described below.

Sampling Procedures. Groundwater samples were collected from six wells in April 2016 (MW-4, MW-11, MW-19, MW-24, MW-27, and MW-28). The monitoring wells were purged using low flow/low volume (micro-purging) techniques (i.e., bladder pump with disposable polyethylene tubing). During purging, groundwater parameters (turbidity, dissolved oxygen, pH, conductivity, oxidation-reduction potential, and temperature) were continuously monitored and recorded on the Field Data Sheets included in Attachment A. The field measurements are summarized in Table 2. Water level measurements were also recorded during purging to limit drawdown, and effort was made to ensure that the rate of groundwater withdrawal did not exceed the rate of recharge in the wells.

The groundwater samples were collected once stabilization was achieved, which was indicated by no increasing or decreasing trends in groundwater parameters for three successive readings and a turbidity of less than 10 Nephelometric Turbidity Units (NTU). Turbidity of less than 10 NTU was achieved prior to collection of all the groundwater samples with the exception of the sample from monitoring well MW-24. This groundwater sample was collected at a turbidity of 37.9 NTU, since at least five well volumes of groundwater had been removed and the other water quality parameters had stabilized. The samples were collected directly from the pump discharge into the laboratory-prepared sample bottles, sealed, placed on ice, and delivered to a certified laboratory for analysis.

One duplicate sample (from MW-19) was collected for quality assurance/quality control (QA/QC). In addition, two equipment blanks were collected and a volatile organic compound (VOC) trip blank accompanied the cooler at all times.

After collection, the samples were immediately placed on ice and delivered to Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia for analysis. Copies of the completed chain-of-custody forms are included in Attachment B with the laboratory reports. The groundwater samples collected from MW-11, MW-19, MW-24, MW-27, and MW-28 as well as associated duplicates and equipment blanks were analyzed for total chromium using United States Environmental Protection Agency (USEPA) Method 6010B, and total hexavalent chromium using USEPA Method 7196. The groundwater sample collected from MW-4 and its associated equipment blank were analyzed for VOCs using USEPA Method 8260b. The stipulation letter documenting AES' certification to perform these analyses is provided in Attachment C.

Analytical Results. VOCs were detected in groundwater above Site VRP cleanup levels in monitoring well MW-4 at concentrations consistent with previous events (Tables 3 and 4, and Figure 5). Total and hexavalent chromium were not detected above laboratory reporting limits in groundwater from monitoring wells MW-11, MW-19, and MW-28. At MW-24, total and hexavalent chromium continue to be detected at concentrations exceeding the cleanup standards. The sample from MW-27 contained hexavalent chromium at a concentration just above the cleanup standard.

Environmental Covenants

The VRP allows environmental covenants to be used to prevent access to groundwater where constituents of concern (COCs) exceed applicable numeric risk reduction standards. Based on current groundwater concentrations, environmental covenants restricting future water well installation and withdrawal are expected to be required on the Former MacGregor Golf property and the Taylor property (Figure 2).

The owner of the Former MacGregor Golf property (Albany Partners, LLC) will execute an environmental covenant following submittal and approval of the Final Compliance Status Report (CSR). The Group is in communication with the owner of the Taylor property regarding a UEC for that property due to chromium detections in the groundwater.

Updated Conceptual Site Model

A three-dimensional conceptual site model (CSM) was originally developed for the Site's VRP Application to illustrate the approximate extent of VOCs and inorganics in the subsurface and the potential exposure pathways and receptors at the Site. The CSM has been updated since then to reflect current conditions at the Site. Figures 6 and 7 illustrate plan and profile views of the updated CSM, respectively.

Site Status Update

As discussed in previous reports, horizontal and vertical delineation of Site COCs in soil and groundwater has been achieved. The following sections provide an updated status relative to cleanup goals.

Soil Status Relative to Cleanup Goals

As discussed in previous reports, Site soil is in compliance with the Site VRP cleanup levels except in the vicinity of borings B-4 and GP-1, located in the former source area. Concentrations of cis-1,2-dichloroethene (cis-1,2-DCE) and vinyl chloride (VC) in the subsurface soil in boring B-4 and the concentration of cis-1,2-DCE in the subsurface soil in boring GP-1 exceeded the soil cleanup levels. Focused risk assessment and groundwater concentration trend analysis were used to demonstrate compliance with cleanup standards in the Final Remediation Plan, which was approved by EPD in their April 14, 2015 letter.

Groundwater Status Relative to Cleanup Goals

VRP groundwater cleanup levels are met in all monitoring wells except in the following areas. Sampling locations are shown on Figure 2 and recent and historical groundwater data are provided in Tables 3 and 4.

MW-4 Vicinity. The April 2016 groundwater concentrations of trichloroethylene (TCE), cis-1,2-DCE, and VC at monitoring well MW-4 were 0.110 milligram per liter (mg/L), 0.480 mg/L, and 0.021 mg/L, respectively (Table 3). These concentrations slightly exceed the Site VRP cleanup levels of 0.038 mg/L, 0.204 mg/L, and 0.0033 mg/L, respectively.

Empirical evidence and groundwater concentration trend analysis has been used to demonstrate compliance with cleanup standards in the MW-4 area.

MW-11 Vicinity. Total and hexavalent chromium were not detected (less than 0.10 mg/L and 0.01 mg/L, respectively) in groundwater from monitoring well MW-11 in April 2016 (Table 3). Thus, groundwater in this area is now in compliance with the cleanup standards.

MW-19 Vicinity. Total and hexavalent chromium were also not detected (less than 0.10 mg/L and 0.01 mg/L, respectively) in groundwater from monitoring well MW-19 in April 2016. Thus, groundwater in the monitoring well MW-19 area meets the cleanup standards (Table 3).

Downgradient on the Taylor property, at MW-27, total chromium was not detected in groundwater above the laboratory reporting limit, whereas hexavalent chromium was detected at a concentration of 0.0115 mg/L, which slightly exceeds the cleanup standard of 0.01 mg/L. Concentrations further downgradient at monitoring MW-28 meet the cleanup levels.

MW-24 Vicinity. The total and hexavalent chromium concentrations in groundwater from monitoring well MW-24 in April 2016 were 0.242 mg/L and 0.209 mg/L, respectively, which exceed the cleanup standards of 0.1 mg/L and 0.01 mg/L (Table 3).

Modeling Results. Modeling to demonstrate compliance with cleanup standards at the designated point of exposure and point of demonstration wells in the MW-11, MW-19, and MW-24 areas was provided in the Final Remediation Plan. The model was approved for the MW-11 and MW-24 areas by EPD in their April 14, 2015 letter, and for the MW-19 area in their May 6, 2016 email.

Project Schedule

Tasks planned for the next year to comply with VRP requirements are summarized below:

- Continue discussions with the owners of the Taylor property regarding the UEC.
- Submit the Final CSR with Certifications by January 2017.
- Conduct the third annual groundwater monitoring event in April 2017.

An updated project milestone schedule is provided in Table 5.

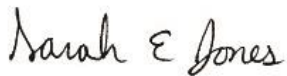
Engineer's Services this Period

Table 6 summarizes BC's professional engineer's work on this project since the last VRP semiannual report for this project.

We appreciate EPD's review of the enclosed report. Should you have any questions regarding the enclosed report, please do not hesitate to call us at 770-394-2997.

Very truly yours,

Brown and Caldwell



Sarah Jones, Ph.D., CHMM
Project Manager



Trish Reifenger, P.E.
Managing Engineer

SEJ:PCR:ehs

cc: Mr. Ray Berens, Esq., Albany Sport Co.
Mr. Eric Gold, Albany Partners, LLC
Mr. David Selig, Brunswick Corporation
Mr. John Spinrad, Esq., Arnall Golden Gregory LLP

Attachments (3)

- Attachment A: Groundwater Sampling Field Data Sheets
- Attachment B: Laboratory Analytical Reports
- Attachment C: Laboratory Stipulation Letter

Limitations:

This document was prepared solely for Albany Partners, LLC, Albany Sport Co., and Brunswick Corporation (the Group) in accordance with professional standards at the time the services were performed and in accordance with the contract between the Group and Brown and Caldwell January 20, 2016. This document is governed by the specific scope of work authorized by the Group; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by the Group and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

This document sets forth the results of certain services performed by Brown and Caldwell with respect to the property or facilities described therein (the Property). The Group recognizes and acknowledges that these services were designed and performed within various limitations, including budget and time constraints. These services were not designed or intended to determine the existence and nature of all possible environmental risks (which term shall include the presence or suspected or potential presence of any hazardous waste or hazardous substance, as defined under any applicable law or regulation, or any other actual or potential environmental problems or liabilities) affecting the Property. The nature of environmental risks is such that no amount of additional inspection and testing could determine as a matter of certainty that all environmental risks affecting the Property had been identified. Accordingly, THIS DOCUMENT DOES NOT PURPORT TO DESCRIBE ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY, NOR WILL ANY ADDITIONAL TESTING OR INSPECTION RECOMMENDED OR OTHERWISE REFERRED TO IN THIS DOCUMENT NECESSARILY IDENTIFY ALL ENVIRONMENTAL RISKS AFFECTING THE PROPERTY.

Further, Brown and Caldwell makes no warranties, express or implied, with respect to this document, except for those, if any, contained in the agreement pursuant to which the document was prepared. All data, drawings, documents, or information contained this report have been prepared exclusively for the person or entity to whom it was addressed and may not be relied upon by any other person or entity without the prior written consent of Brown and Caldwell unless otherwise provided by the Agreement pursuant to which these services were provided.

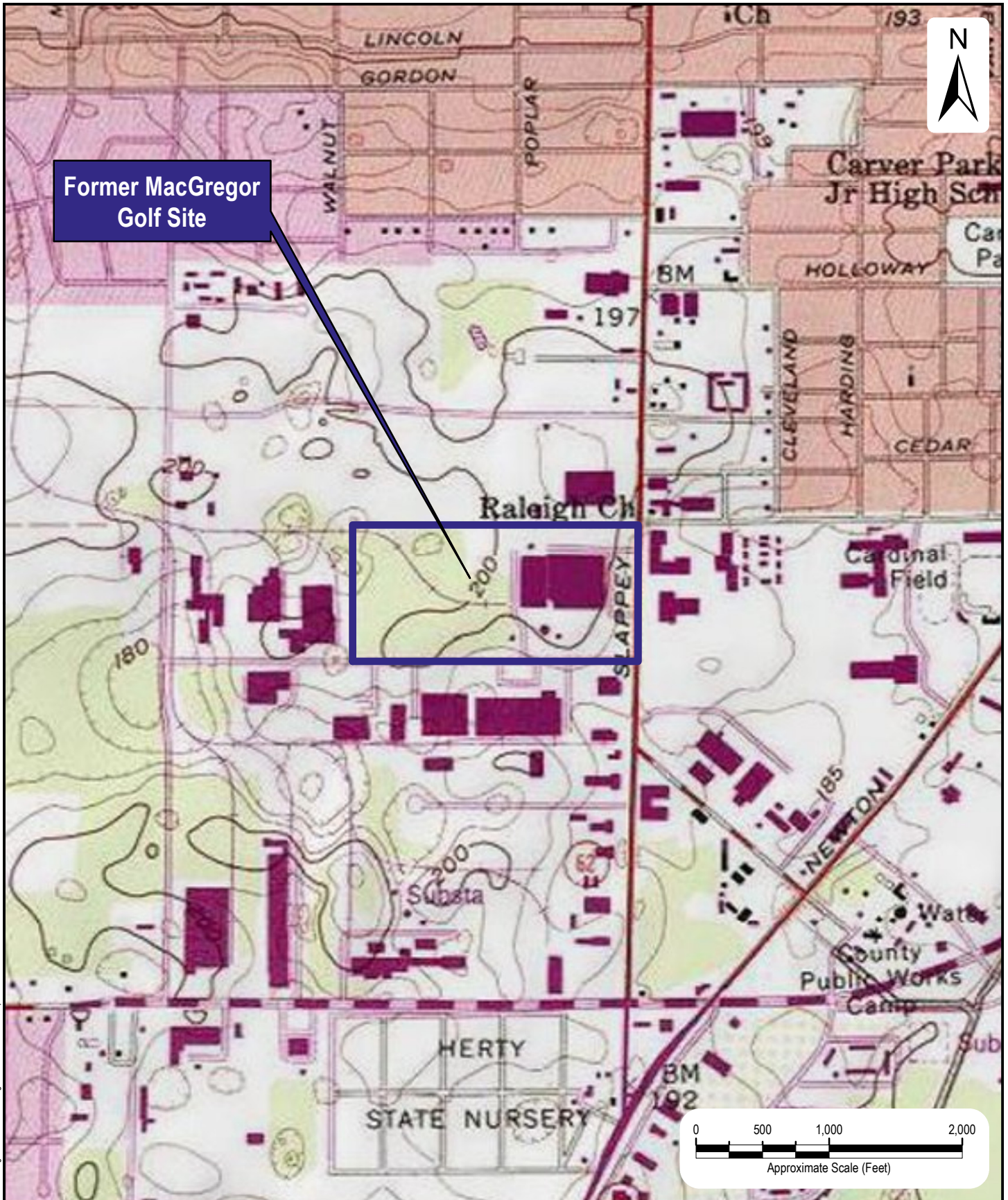


Figure 1

Site Location Map

Former MacGregor Golf Company
1601 South Slappey Blvd, Albany, Dougherty County, Georgia

**Brown AND
Caldwell**

PREPARED FOR:

Brunswick Corp.,
Albany Sport Co., &
Albany Partners, LLC

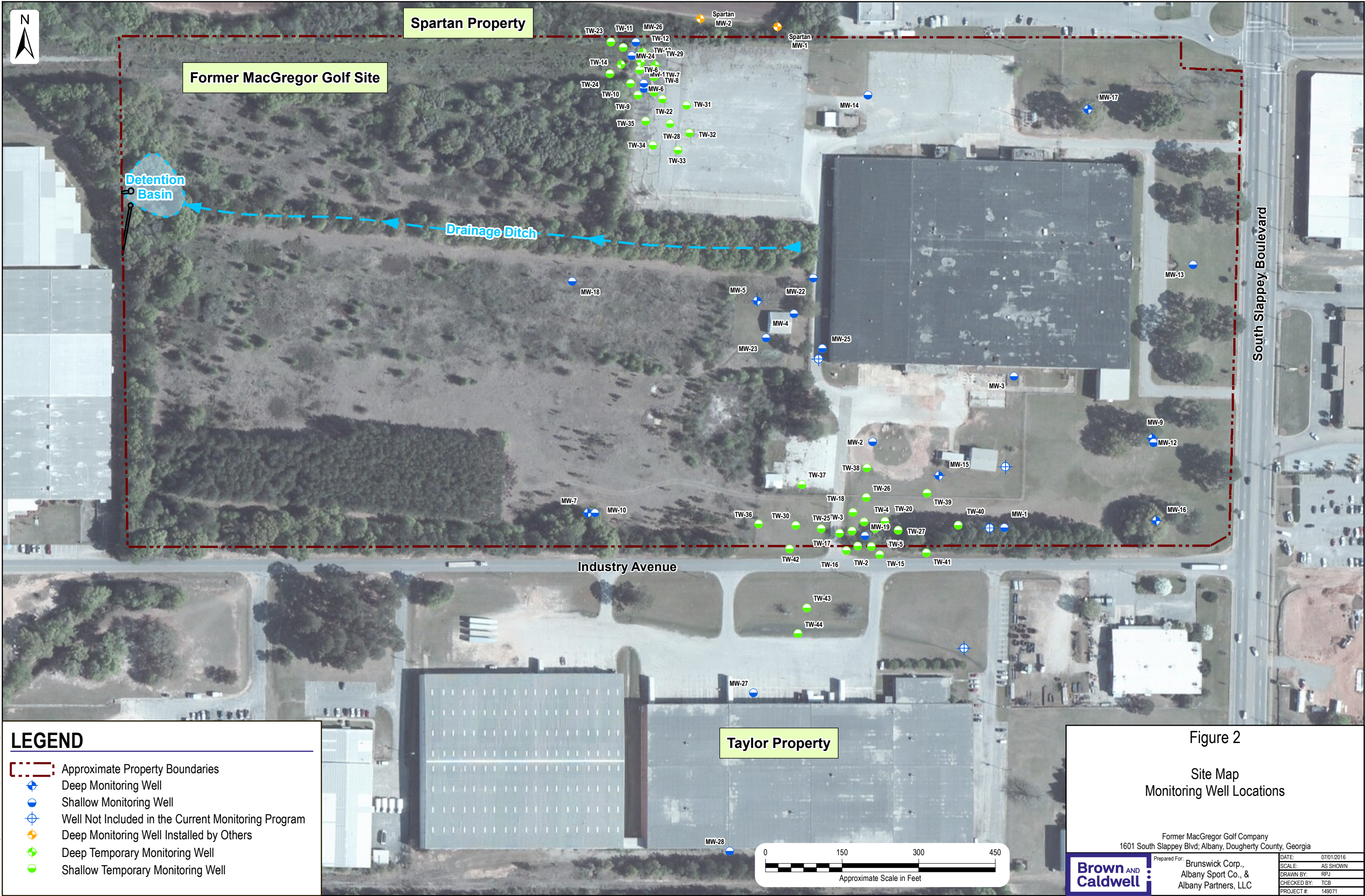
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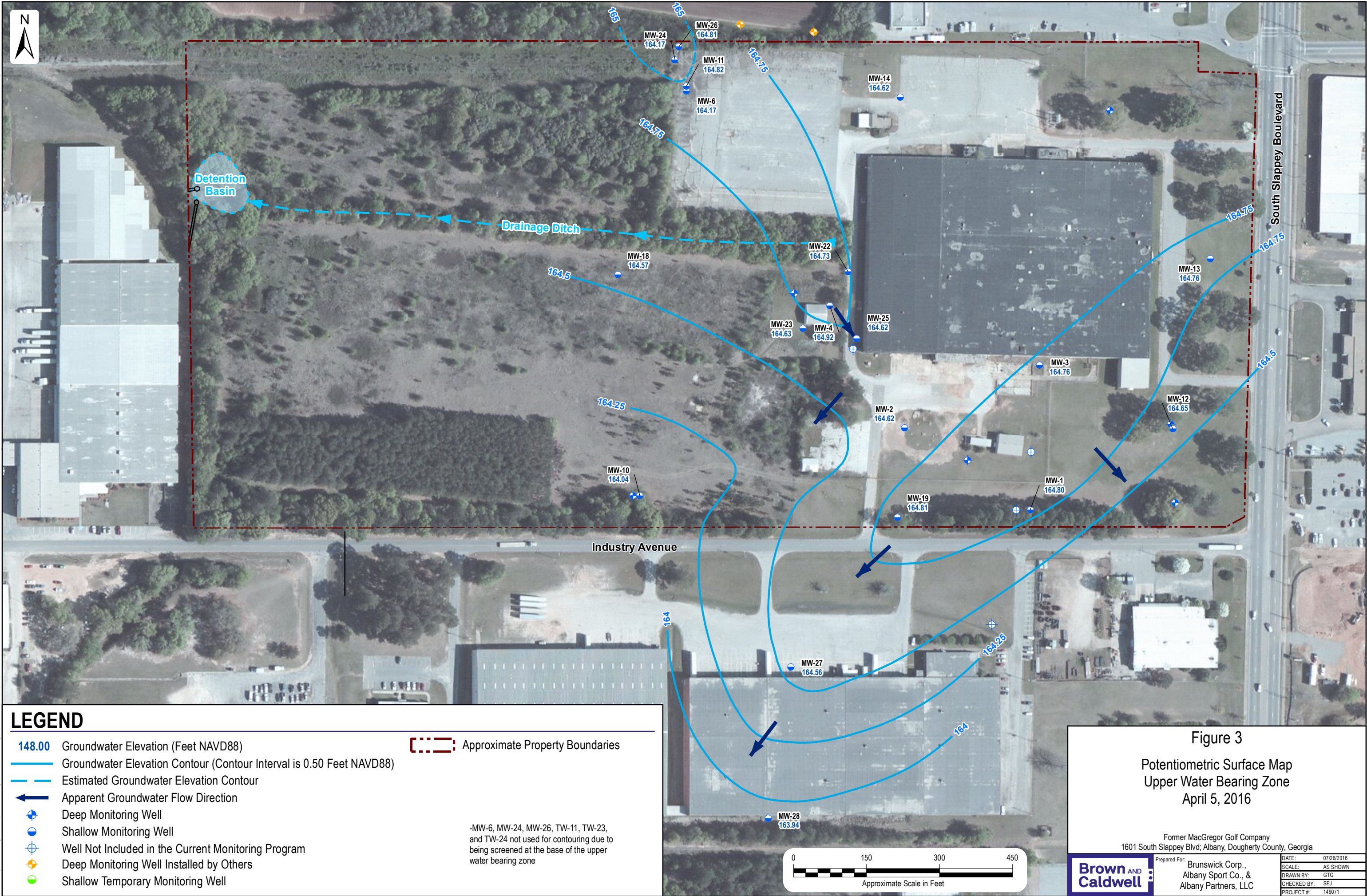
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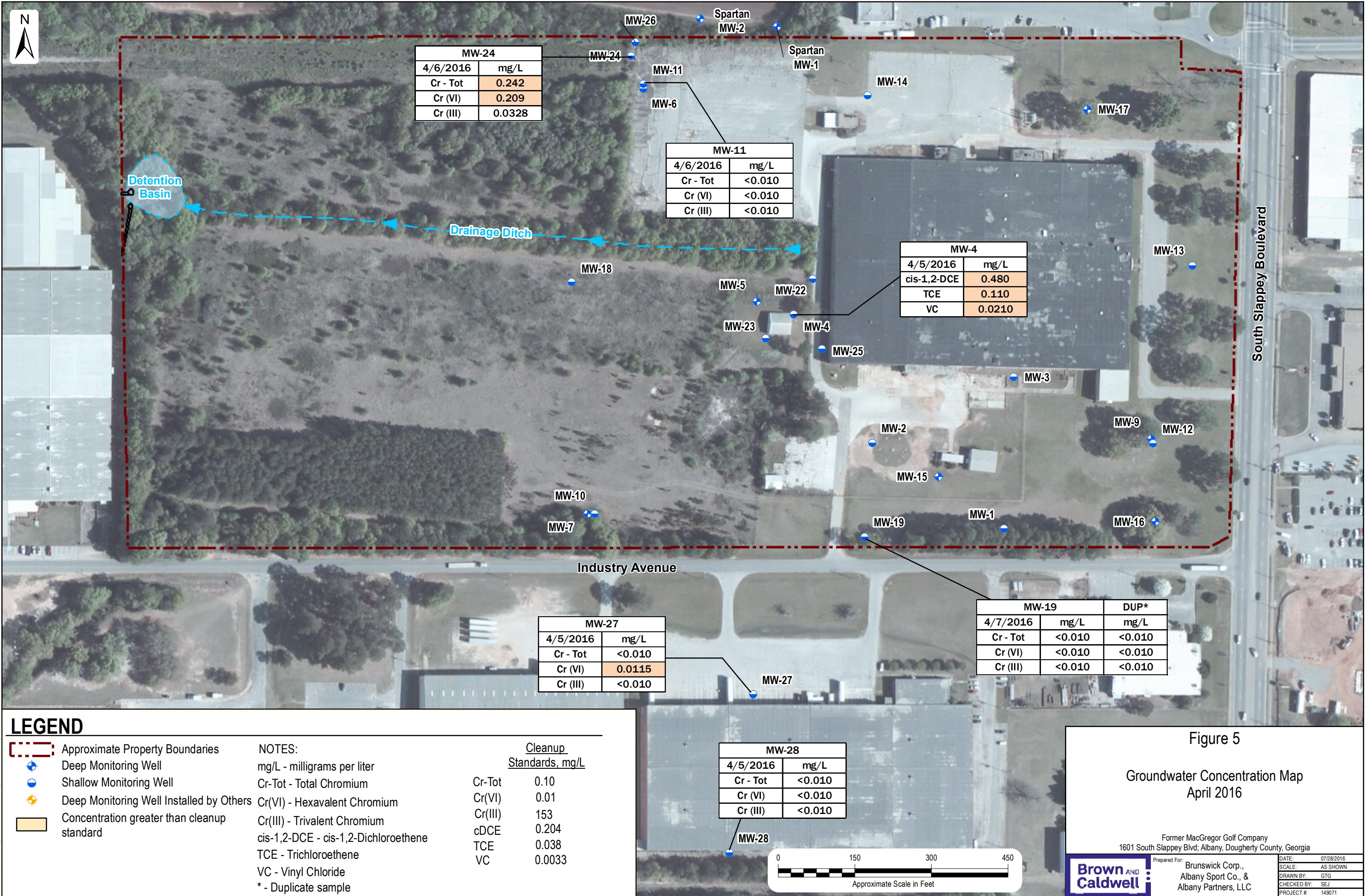
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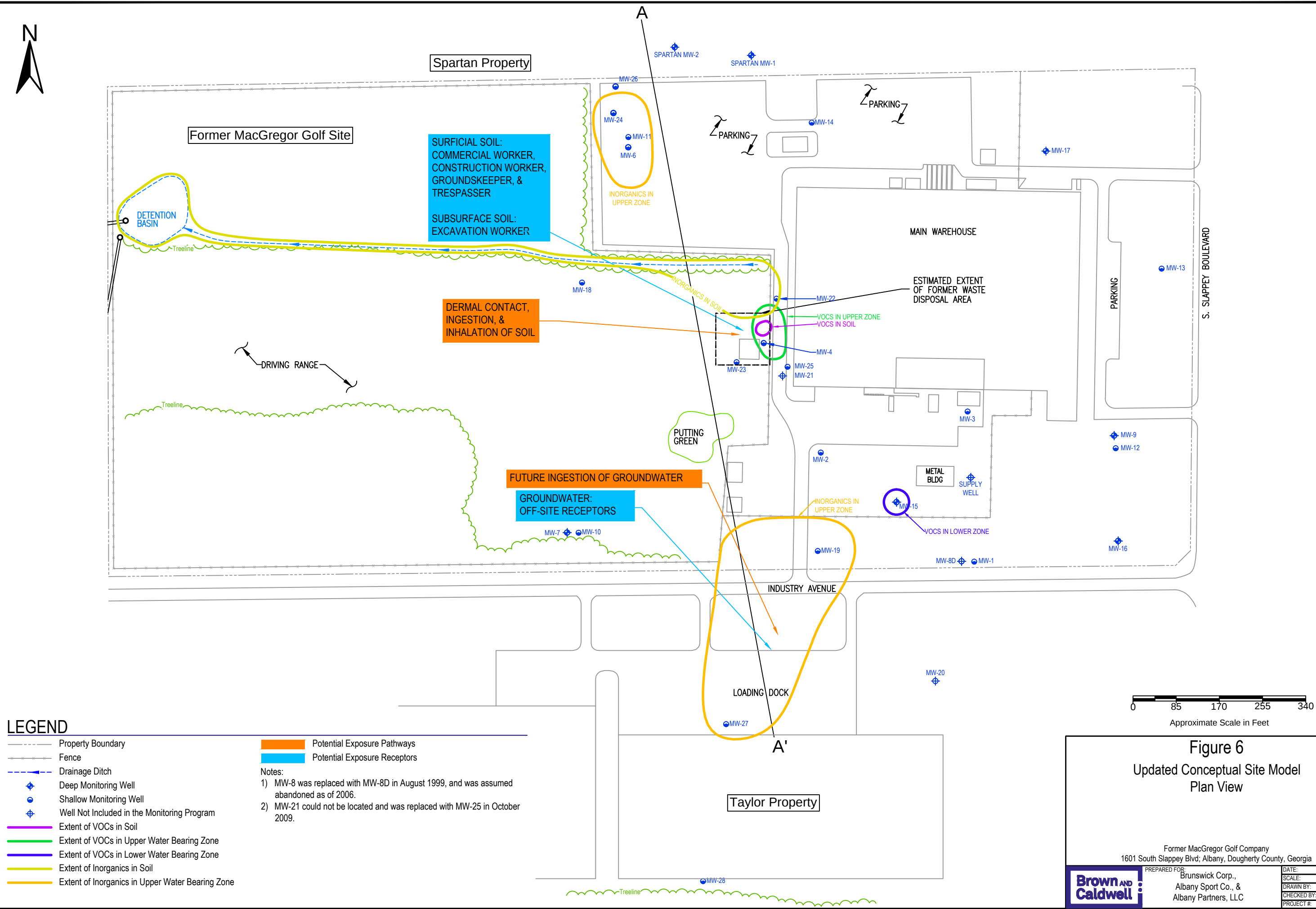
PROJECT #: 149071













ESTIMATED EXTENT OF FORMER
WASTE DISPOSAL AREA
(SOURCE AREA)

SURFICIAL SOIL:
COMMERCIAL WORKER,
CONSTRUCTION WORKER,
GROUNDSKEEPER, &
TRESPASSER

SUBSURFACE SOIL:
EXCAVATION WORKER

DERMAL CONTACT,
INGESTION, &
INHALATION OF SOIL

FUTURE
INGESTION OF
GROUNDWATER

GROUNDWATER:
OFF-SITE
RECEPTORS

Main Warehouse

Pavement

Unoccupied
Storage
Shed

Drainage
Ditch

Industry Avenue

Taylor
Property

Approximate Potentiometric Surface
Upper Water-Bearing Unit

Approximate Potentiometric Surface
Lower Water-Bearing Unit

LEGEND

- Property Boundary
- Approximate Water Table in Upper Water-Bearing Zone
- Approximate Water Table in Lower Water-Bearing Zone
- Potential Exposure Pathways
- Potential Exposure Receptors
- Soil
- Chert
- Semiconfining Unit / Chalky Limestone
- Limestone Bedrock
- Lower Confining Unit / Limestone
- VOC impacts
- Inorganics impacts

Drawing not to scale

Figure 7
Updated Conceptual Site Model
Profile View

Former MacGregor Golf Company
1601 South Slappey Blvd; Albany, Dougherty County, Georgia

Brown and Caldwell

PREPARED FOR:
Brunswick Corp.,
Albany Sport Co., &
Albany Partners, LLC

DATE: 09/07/2016
SCALE: NOT TO SCALE
DRAWN BY: BAS
CHECKED BY: SEJ
PROJECT #: 149071

Table 1. Well Construction Data and Most Recent Groundwater Elevations
Former MacGregor Golf Company
Albany, Georgia

Well ID	Well Completion Date	Water Bearing Unit	Northing (Feet - Georgia West State Plane NAD83)	Easting (Feet - Georgia West State Plane NAD83)	Total Depth ^a (feet)	Screened Interval ^a (feet)	Open Hole Interval ^a (feet)	Top of Casing Elevation ^b (feet)	April 5, 2016	
									Static Depth to Water ^a (feet)	Groundwater Elevation ^b (feet)
Upper Water Bearing Zone										
MW-1	6/28/1995	Upper	566051.98	2293023.36	45.88	33.5-48.5	NA	196.54	31.74	164.80
MW-2	6/28/1995	Upper	566220.01	2292765.44	40.19	25-40	NA	196.61	31.99	164.62
MW-3	6/29/1995	Upper	566348.21	2293042.11	46.33	32.50-47.50	NA	198.41	33.65	164.76
MW-4	6/29/1995	Upper	566470.82	2292611.54	46.96	28-41.50	NA	198.43	33.51	164.92
MW-6 ^c	7/25/1998	Upper	566911.71	2292317.29	60.13	NA	60-73	200.14	35.97	164.17
MW-10	7/15/1998	Upper	566080.73	2292221.58	48.37	33.30-48.30	NA	193.75	29.71	164.04
MW-11	7/15/1998	Upper	566921.91	2292317.31	48.30	33-48	NA	200.25	35.43	164.82
MW-12	7/16/1998	Upper	566218.48	2293315.55	45.28	35-50	NA	194.70	30.05	164.65
MW-13	10/22/1998	Upper	566566.74	2293392.86	50.38	35-50	NA	196.48	31.72	164.76
MW-14	10/20/1998	Upper	566899.03	2292756.18	49.71	34.80-49.80	NA	196.99	32.37	164.62
MW-18	6/17/1999	Upper	566533.98	2292176.82	43.70	28.8-43.8	NA	196.49	31.92	164.57
MW-19	6/17/1999	Upper	566035.83	2292750.34	44.12	29-44	NA	193.40	28.59	164.81
MW-21 ^{d,e}	3/11/2003	Upper	NM	NM	38.61	28.61-38.61	NA	196.80	NM	NM
MW-22	3/11/2003	Upper	566540.86	2292649.02	45.69	35.4-45.4	NA	196.89	32.16	164.73
MW-23	3/11/2003	Upper	566423.91	2292556.49	48.10	37.95-47.95	NA	199.73	35.10	164.63
MW-24 ^c	2/8/2008	Upper	566975.84	2292293.48	58.75	50-60	NA	200.39	36.22	164.17
MW-25 ^e	10/21/2009	Upper	566402.83	2292666.80	39.16	29-39	NA	195.82	31.20	164.62
MW-26 ^c	11/26/2012	Upper	567002.52	2292301.47	62.20	52.20-62.20	NA	200.90	36.09	164.81
MW-27	11/3/2015	Upper	565728.36	2292531.80	43.00	33-43	NA	188.56	24.00	164.56
MW-28	11/3/2015	Upper	565418.49	2292485.20	43.00	33-43	NA	188.04	24.10	163.94
TW-2 ^f	3/17/2014	Upper	566015.94	2292736.14	35.51	25.51-35.51	NA	193.36	NM	NM
TW-9 ⁱ	3/19/2014	Upper	566898.95	2292305.58	44.79	34.79-44.79	NA	200.18	NM	NM
TW-10 ^f	3/19/2014	Upper	566921.71	2292291.27	44.78	34.78-44.78	NA	200.19	NM	NM
TW-11 ^{c,f}	3/20/2014	Upper	566992.21	2292277.10	59.74	49.74-59.74	NA	200.54	NM	NM
TW-15 ^f	3/21/2014	Upper	565998.92	2292779.18	42.95	32.94-42.95	NA	193.99	NM	NM
TW-23 ^{c,f}	3/24/2014	Upper	567002.88	2292252.96	59.78	49.78-59.78	NA	200.26	NM	NM
TW-24 ^{c,f}	3/24/2014	Upper	566940.64	2292250.83	59.68	49.68-59.68	NA	200.15	NM	NM
TW-31 ^f	6/4/2014	Upper	566879.07	2292400.98	45.25	35.25-45.25	NA	201.28	NM	NM
TW-35 ^f	6/4/2014	Upper	566848.17	2292320.97	45.07	35.07-45.07	NA	200.02	NM	NM
TW-41 ^f	6/4/2014	Upper	566002.49	2292870.78	45.11	35.11-45.11	NA	196.35	NM	NM
TW-42 ^j	6/4/2014	Upper	566010.23	2292603.03	45.00	35.00-45.00	NA	193.33	NM	NM
TW-43 ^f	7/28/2015	Upper	565894.76	2292636.51	44.00	34.00-44.00	NA	191.20	NM	NM
TW-44 ^f	7/28/2015	Upper	565844.66	2292619.29	44.00	34.00-44.00	NA	189.53	NM	NM
Lower Water Bearing Zone										
MW-5	7/23/1998	Lower	566495.97	2292539.09	60.50	NA	60-73	199.89	35.96	163.93
MW-7	7/22/1998	Lower	566080.91	2292207.62	69.35	60-70	NA	194.22	30.19	164.03
MW-8/8D ^{d,g}	8/17/1999	Lower	NM	NM	207.50	197.3-207.3	NA	198.00	NM	NM
MW-9	7/20/1998	Lower	566227.03	2293312.05	69.28	NA	58.5-73.5	194.68	31.61	163.07
MW-15	10/23/1998	Lower	566153.85	2292894.90	75.38	65.70-75.70	NA	199.23	35.78	163.45
MW-16	10/21/1998	Lower	566065.57	2293320.44	75.47	64.70-74.70	NA	193.61	30.77	162.84
MW-17	6/17/1999	Lower	566871.51	2293186.97	73.81	66-76	NA	198.73	35.45	163.28
MW-20 ^c	8/14/1999	Lower	NM	NM	70.00	60-70	NA	193.31	NM	NM
Spartan MW-1	11/10/2008	Lower	567032.71	2292578.90	68.5	52-67	NA	206.37	41.88	164.49
Spartan MW-2	11/10/2008	Lower	567048.65	2292428.10	65.0	49.5-64.5	NA	205.78	41.02	164.76
Supply Well	1958	Lower	NM	NM	168.0	NA	NA	NM	NM	NM

^a Depth below top of casing.

NA - Not Applicable

^b Elevation is feet above mean sea level.

NM - Not Measured

^c Wells are screened at the base of the upper water bearing zone and are therefore not used for contouring.

NAD83 - North American Datum of 1983

^d Wells are not gauged or sampled as part of the monitoring program.

^e Well MW-25 was replaced MW-21 in 2009.

^f Temporary wells were abandoned following survey and water level measurements.

^g Wells assumed to be abandoned or lost.

**Table 2. Recent Field-Measured Groundwater Sampling Parameters
Former MacGregor Golf Company
Albany, Georgia**

Well	Sample Date	Total Gallons Removed	pH	Temperature (°C)	Conductivity (mS/cm) ^a	ORP (mV) ^b	Dissolved Oxygen (mg/L) ^c	Turbidity (NTU) ^d
MW-4	4/5/16	3.00	6.35	20.38	0.541	116.3	0.46	5.95
MW-11	4/6/16	6.50	6.58	21.87	0.505	57.1	1.01	0.21
MW-19	4/7/16	4.00	7.14	20.57	0.013	50.0	1.45	6.64
MW-24	4/6/16	18.50	6.75	20.59	0.534	107.6	1.10	37.9
MW-27	4/5/16	3.70	8.00	22.27	0.256	151.1	1.87	4.59
MW-28	4/5/16	4.30	7.18	21.07	0.215	117.5	1.08	9.70

^a mS/cm = Millisiemens per centimeter.

^b ORP = Oxidation Reduction Potential in millivolts (mV).

^c mg/L = Milligrams per liter.

^d NTU = Nephelometric Turbidity Unit.

Table 3. Recent Groundwater Detections of Site COCs Former MacGregor Golf Company Albany, Georgia								
Well ID	Sampling Date	Turbidity (NTU)	Inorganics: Concentration (mg/L)			Organics: Concentration (mg/L)		
			Total Chromium	Hexavalent Chromium	Trivalent Chromium	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride
GW Delineation Standard			0.10	0.01	0.01	0.07	0.005	0.002
GW Cleanup Standard			0.10	0.01	153	0.204	0.038	0.0033
MW-4	4/5/16	5.95	NA	NA	NA	0.480	0.110	0.021
MW-11	4/6/16	0.21	< 0.01	< 0.01	< 0.01	NA	NA	NA
MW-19	4/7/16	6.64	< 0.01	< 0.01	< 0.01	NA	NA	NA
MW-19 Dup	4/7/16	6.64	< 0.01	< 0.01	< 0.01	NA	NA	NA
MW-24 ^a	4/6/16	37.9	0.242	0.209	0.0328	NA	NA	NA
MW-27	4/5/16	4.59	< 0.01	0.0115	< 0.01	NA	NA	NA
MW-28	4/5/16	9.70	< 0.01	< 0.01	< 0.01	NA	NA	NA

NA - Sample not analyzed for this parameter.

Dup - Duplicate sample

mg/L - milligrams per liter

^a Sample was collected at a turbidity of 37.9 NTU. Dissolved results for MW-24 are as follows:

Dissolved total chromium - 0.223 mg/L

Dissolved hexavalent chromium - 0.0209 mg/L

Dissolved trivalent chromium - 0.0137

Purple Highlight - Indicates concentration is greater than delineation standard.

Orange Highlight - Indicates concentration is greater than delineation and cleanup standard.

Table 4. Historical Groundwater Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia

Well ID	Sampling Date	Inorganics: Concentration (mg/L)					Organics: Concentration (mg/L)						
		Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
GW Delineation Standard		0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10
GW Cleanup Standard		0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10
MW-1	6/30/95	0.05	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
	6/10/98	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
	7/31/98	< 0.010	NA	NA	< 0.02	< 0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/30/99	NA	NA	NA	NA	NA	0.0017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	8/6/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-2	3/12/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	6/30/95	0.04	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
	6/10/98	NA	NA	NA	NA	NA	<0.005	0.0059	<0.005	<0.002	<0.002	<0.002	<0.005
MW-3	7/31/98	< 0.010	NA	NA	< 0.02	< 0.02	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.005
	6/30/95	0.05	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.002	<0.002	<0.005
	6/10/98	NA	NA	NA	NA	NA	0.0094	<0.005	0.005	<0.002	<0.002	<0.002	<0.005
	7/31/98	< 0.010	NA	NA	< 0.02	0.03	0.007	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/30/99	NA	NA	NA	NA	NA	0.0058	0.0019	<0.001	<0.001	<0.001	<0.001	<0.002
	2/26/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	6/30/95	< 0.010	NA	NA	NA	NA	<0.005	1.560	0.376	0.065	<0.002	<0.002	<0.005
MW-4	6/10/98	NA	NA	NA	NA	NA	<0.005	2.900	0.310	<0.002	<0.002	<0.002	<0.005
	7/29/98	0.33	NA	NA	< 0.02	0.39	<0.002	2.800	0.350	0.013	<0.002	<0.002	<0.005
	6/30/99	NA	NA	NA	NA	NA	<0.025	3.700	0.460	<0.001	<0.025	<0.025	<0.050
	2/26/03	NA	NA	NA	NA	NA	<0.0002	2.200	0.290	0.017	<0.0002	<0.0003	<0.0015
	5/21/03	NA	NA	NA	NA	NA	<0.0002	1.300	0.200	0.0034	<0.0002	<0.0003	<0.0015
	6/13/03	NA	NA	NA	NA	NA	<0.0002	2.200	0.190	0.0022	<0.0002	<0.0003	<0.0015
	7/18/03	NA	NA	NA	NA	NA	<0.007	1.500	0.200	0.0068	<0.009	<2.300	<10.000
	8/14/03	NA	NA	NA	NA	NA	<0.00022	1.600	0.200	0.0020	<0.00019	<0.00032	<0.0015
	2/19/04	NA	NA	NA	NA	NA	<0.007	1.800	0.370	0.013	<0.009	<2.300	<10.000
	3/29/04	NA	NA	NA	NA	NA	<0.005	1.700	0.130	0.021	<0.005	<0.005	<0.015
	5/19/04	NA	NA	NA	NA	NA	<0.005	0.890	0.110	0.0087	<0.005	<0.005	<0.015
	8/23/04	NA	NA	NA	NA	NA	<0.005	1.400	0.180	0.0074	<0.005	<0.005	<0.015
	5/30/06	< 0.010	NA	NA	NA	2.83	<0.005	1.100	0.170	0.0088	<0.005	<0.005	<0.015
	10/22/09	NA	NA	NA	NA	NA	0.00025 J	0.400	0.079	0.015	<0.00028	<0.00025	<0.00068
	7/28/10	NA	NA	NA	NA	NA	<0.005	0.690	0.200	0.025	<0.005	<0.005	<0.015
	3/31/11	NA	NA	NA	NA	NA	<0.005	0.410	0.110	0.0048	<0.005	<0.005	<0.015
	1/11/12	NA	NA	NA	NA	0.0725	NA	NA	NA	NA	NA	NA	NA
	11/28/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/13	< 0.010	< 0.010	< 0.010	NA	0.203	< 0.005	0.380	0.120	0.015	< 0.005	< 0.005	< 0.005
	1/7/14	NA	NA	NA	NA	NA	< 0.005	0.290	0.097	0.011	< 0.005	< 0.005	< 0.005
	7/27/15	NA	NA	NA	NA	NA	< 0.005	0.410	0.110	0.0093	< 0.005	< 0.005	< 0.005
	4/5/16	NA	NA	NA	NA	NA	< 0.005	0.480	0.110	0.0210	< 0.005	< 0.005	< 0.005
	MW-5	7/30/98	0.01	NA	NA	< 0.02	< 0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
6/28/99		NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
8/9/99		NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
9/3/99		NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
3/13/03		NA	NA	NA	NA	NA	<0.0002	0.030	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-6	5/30/06	NA	NA	NA	NA	< 0.02	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	7/30/98	0.01	NA	NA	< 0.02	< 0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
MW-7	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	7/30/98	< 0.010	NA	NA	< 0.02	< 0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/29/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	3/13/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015

Table 4. Historical Groundwater Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia

Well ID	Sampling Date	Inorganics: Concentration (mg/L)					Organics: Concentration (mg/L)						
		Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
GW Delineation Standard		0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10
GW Cleanup Standard		0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10
MW-8	7/15/98	NA	NA	NA	NA	NA	0.007	<0.002	0.003	<0.002	<0.002	<0.002	<0.005
	7/31/98	< 0.010	NA	NA	0.03	< 0.02	0.008	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/8/99	NA	NA	NA	NA	NA	0.014	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	0.016	<0.001	<0.0002	<0.001	<0.001	<0.001	<0.002
MW-8D	6/17/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
MW-9	7/29/98	< 0.010	NA	NA	< 0.02	< 0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	8/6/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	NA	NA	NA	NA
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	2/21/08	NA	NA	NA	NA	NA	<0.007	NA	NA	NA	NA	NA	NA
MW-10	7/29/98	0.01	NA	NA	< 0.02	< 0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/29/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	3/13/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
MW-11	7/30/98	0.04	NA	NA	< 0.02	< 0.04	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	9/13/99	0.37 ^a	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	2/21/08	0.0404	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/21/09	0.0250	0.0300	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/29/10	0.1930	0.0322	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/29/11	0.0285	0.0243	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/23/13	0.0459	0.0402	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/7/14	0.0319	0.0351	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/15	0.0864	0.0895	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/6/16	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-12	7/30/98	< 0.010	NA	NA	< 0.02	< 0.02	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	7/28/10	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	3/28/11	NA	NA	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
MW-13	10/26/98	NA	NA	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	0.014	0.770	4.5
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	3/20/10	< 0.010	< 0.010	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	7/28/10	< 0.010	< 0.010	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
MW-14	3/29/11	< 0.010	< 0.010	NA	NA	NA	<0.005	<0.005	<0.005	<0.002	<0.005	<0.005	<0.015
	10/27/98	NA	NA	NA	NA	NA	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.005
	6/28/99	NA	NA	NA	NA	NA	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.002
MW-15	2/25/03	NA	NA	NA	NA	NA	<0.0002	<0.0004	<0.0002	<0.0001	<0.0002	<0.0003	<0.0015
	10/26/98	NA	NA	NA	NA	NA	0.057	<0.002	0.004	<0.002	<0.002	<0.002	<0.005
	6/30/99	NA	NA	NA	NA	NA	0.340	<0.002	0.032	<0.002	<0.002	<0.002	<0.004
MW-16	2/26/03	NA	NA	NA	NA	NA	0.066	< 0.0004	0.008	< 0.0001	< 0.0002	< 0.0003	< 0.0015
	10/26/98	NA	NA	NA	NA	NA	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.005
	6/29/99	NA	NA	NA	NA	NA	< 0.001	< 0.001	0.0017	< 0.001	< 0.001	< 0.001	< 0.0002
	8/6/99	NA	NA	NA	NA	NA	< 0.001	0.0018	0.004	NA	NA	NA	NA
	9/3/99	NA	NA	NA	NA	NA	< 0.001	0.0012	< 0.001	NA	NA	NA	NA
	9/13/00	NA	NA	NA	< 0.01	NA	< 0.001	0.0015	0.0029	< 0.001	< 0.001	< 0.001	< 0.002
	2/25/03	NA	NA	NA	NA	NA	< 0.0002	< 0.0004	< 0.0002	<0.0001	< 0.0002	< 0.0003	< 0.0015

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Former MacGregor Golf Company
Albany, Georgia

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		Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
GW Delineation Standard		0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10
GW Cleanup Standard		0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10
MW-17	6/28/99	NA	NA	NA	NA	NA	< 0.001	<0.001	<0.001	< 0.001	< 0.001	< 0.001	< 0.002
	8/9/99	NA	NA	NA	NA	NA	< 0.001	< 0.001	< 0.001	NA	NA	NA	NA
	2/25/03	NA	NA	NA	NA	NA	< 0.0002	<0.0004	< 0.0002	<0.0001	< 0.0002	< 0.0003	< 0.0015
MW-18	6/26/99	NA	NA	NA	NA	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002
	8/9/99	NA	NA	NA	NA	NA	< 0.001	<0.001	<0.001	NA	NA	NA	NA
	9/13/99	< 0.010	NA	NA	NA	< 0.04	NA	NA	NA	NA	NA	NA	NA
MW-19	6/28/99	NA	NA	NA	NA	NA	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002
	8/9/99	NA	NA	NA	NA	NA	< 0.001	<0.001	<0.001	NA	NA	NA	NA
	2/26/03	NA	NA	NA	NA	NA	< 0.0002	< 0.0004	< 0.0002	< 0.0001	<0.0002	<0.0003	< 0.0015
	7/28/10	0.0117	0.0139	NA	NA	NA	< 0.005	< 0.005	< 0.005	< 0.002	< 0.005	< 0.005	< 0.015
	3/29/11	< 0.010	< 0.010	NA	NA	NA	< 0.005	< 0.005	< 0.005	< 0.002	< 0.005	< 0.005	< 0.015
	10/23/13	0.296	0.284 J	0.0113 J	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/8/14	0.196	0.199	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/8/14 Dup	0.204	0.198	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/27/15	0.0236	0.0301	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	4/7/16	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/7/16 Dup	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-20	8/17/99	NA	NA	NA	NA	NA	0.0047	< 0.001	0.0016	NA	NA	NA	NA
	9/3/99	NA	NA	NA	NA	NA	0.0073	< 0.001	< 0.001	NA	NA	NA	NA
	9/13/00	NA	NA	NA	< 0.01	NA	0.0085	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.002
	2/25/03	NA	NA	NA	NA	NA	< 0.0002	<0.0004	< 0.0002	< 0.0001	< 0.0002	< 0.0003	< 0.0015
MW-21	3/13/03	NA	NA	NA	NA	NA	< 0.0002	0.030	< 0.0002	< 0.0001	< 0.0002	< 0.0003	< 0.0015
MW-22	3/13/03	NA	NA	NA	NA	NA	< 0.0002	< 0.0004	0.007	< 0.0001	< 0.0002	< 0.0003	< 0.0015
	5/30/06	NA	NA	NA	NA	< 0.02	< 0.005	0.0084	0.0090	< 0.002	< 0.005	< 0.005	< 0.015
	10/22/09	NA	NA	NA	NA	NA	< 0.00024	0.0062	0.0053	< 0.00029	< 0.00028	< 0.00025	< 0.00068
	7/28/10	NA	NA	NA	NA	NA	< 0.005	0.0095	0.0089	< 0.002	< 0.005	< 0.005	< 0.015
	3/31/11	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	< 0.002	< 0.005	< 0.005	< 0.015
	11/28/12	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-23	3/13/03	NA	NA	NA	NA	NA	< 0.0002	0.030	< 0.0002	< 0.0001	< 0.0002	< 0.0003	< 0.0015
	5/30/06	NA	NA	NA	NA	< 0.02	< 0.005	< 0.005	< 0.002	< 0.002	< 0.005	< 0.005	< 0.015
	2/8/08	0.33	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA
	10/22/09	NA	NA	NA	NA	NA	<0.00024	0.0012	0.00059J	< 0.00029	< 0.00028	< 0.00025	< 0.00068
	7/28/10	NA	NA	NA	NA	NA	< 0.005	0.0089	< 0.005	< 0.002	< 0.005	< 0.005	< 0.015
	3/29/11	NA	NA	NA	NA	NA	< 0.005	< 0.005	< 0.005	< 0.002	< 0.005	< 0.005	< 0.005
	10/2/12	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/22/13	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-24	4/9/08	0.386	NA	NA	NA	< 0.02	NA	NA	NA	NA	NA	NA	NA
	10/21/09	0.11	0.11	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/29/10	0.108	0.107	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/29/10 Dup	0.109	0.110	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/30/11	0.120	0.0945	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	1/11/12	0.153 ^b	0.125 ^b	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/2/12	0.138 ^c	0.105	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/2/12 Dup	0.139	0.116	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/23/13	0.0829	0.0513	0.0316	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/30/15	0.0715	0.0772	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
4/6/16	0.242	0.209	0.0328	NA	NA	NA	NA	NA	NA	NA	NA	NA	
MW-25	10/22/09	NA	NA	NA	NA	NA	< 0.00024	0.004	0.0018	< 0.00029	< 0.00028	< 0.00025	< 0.00068
	7/28/10	NA	NA	NA	NA	NA	< 0.005	0.011	0.0055	< 0.002	< 0.005	< 0.005	< 0.015
	3/29/11	NA	NA	NA	NA	NA	< 0.005	0.0083	< 0.005	< 0.002	< 0.005	< 0.005	< 0.015

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		Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
GW Delineation Standard		0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10
GW Cleanup Standard		0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10
MW-26	11/29/12	0.175	0.184	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/29/12 Dup	0.175	0.180	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/20/2013	0.0959	< 0.010	0.0959	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/20/2013 Dup	0.0979	< 0.010	0.0979	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/9/2013	0.0337	0.031	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/24/2013	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	10/24/2013 Dup	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-27	1/8/2014	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/5/2015	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/5/2015 Dup	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
MW-28	4/5/2016	< 0.010	0.0115	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	11/5/2015	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
Spartan MW-2	4/5/2016	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	2/21/2013	0.0101	< 0.050	0.0101	NA	NA	NA	NA	NA	NA	NA	NA	NA
	5/8/2013	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
Supply Well	5/8/2013 Dup	< 0.010	< 0.010	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	9/22/98	NA	NA	NA	NA	NA	0.003	< 0.002	0.003	< 0.002	< 0.002	< 0.002	< 0.005
	6/15/99	NA	NA	NA	NA	NA	0.0011	< 0.001	0.0026	< 0.001	< 0.001	< 0.001	< 0.002
DB-SW-1 (Surface Water)	3/12/03	NA	NA	NA	NA	NA	0.006	< 0.0004	< 0.0002	< 0.0001	< 0.0002	< 0.0003	< 0.0015
TW-1	10/20/09	0.0027J	NA	NA	NA	< 0.0022	NA	NA	NA	NA	NA	NA	NA
TW-2	3/18/2014	0.160	0.143	0.017	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/18/2014 Dup	0.034	0.026J	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-3	3/18/2014	0.076	0.068	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-4	3/18/2014	0.125	0.110	0.015	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-5	3/19/2014	0.075	0.070J	< 0.01UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-6	3/19/2014	0.020	< 0.01	0.019	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-7	3/19/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-8	3/19/2014	0.020	0.013	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-9	3/20/2014	0.015J	< 0.01UJ	0.015J	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-10	3/20/2014	0.011	< 0.01	0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-11	3/20/2014	1.740	1.490	0.250	NA	NA	NA	NA	NA	NA	NA	NA	NA
	3/20/2014 Dup	1.730	1.460	0.274	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-12	3/20/2014	0.011	< 0.01	0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-13	3/21/2014	0.060	0.056	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-14	3/21/2014	0.587	0.580	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-15	3/22/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-16	6/2/2014	0.018	< 0.01	0.018	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-17	3/22/2014	0.116	0.102	0.014	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-18	3/23/2014	0.107	0.098	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-20	3/23/2014	0.199	0.185	0.013	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-22	3/21/2014	0.019	0.017	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-23	3/24/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-24	3/24/2014	0.021	0.013	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-25	3/23/2014	0.086	0.075	0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-26	3/25/2014	0.083	0.068J	0.015J	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-27	3/25/2014	0.168	0.147J	0.022J	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-28	3/25/2014	0.039	0.024	0.015	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-29	3/26/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-30	3/25/2014	0.064	0.047	0.017	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-31	6/4/2013	0.024	0.013	0.011	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-32	6/4/2013	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-33	6/5/2014	< 0.01	< 0.01UJ	< 0.01UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/5/2014 Dup	< 0.01	< 0.01UJ	< 0.01UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-34	6/5/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-35	6/5/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-36	6/3/2014	0.041	0.028J	0.012J	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-37	6/3/2014	0.015	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA

Table 4. Historical Groundwater Detections of Site COCs
Former MacGregor Golf Company
Albany, Georgia

Well ID	Sampling Date	Inorganics: Concentration (mg/L)					Organics: Concentration (mg/L)						
		Total Chromium	Hexavalent Chromium	Trivalent Chromium	Cyanide	Nickel	1,1-Dichloroethene	cis-1,2-Dichloroethene	Trichloroethene	Vinyl Chloride	Benzene	Ethylbenzene	Xylenes (Total)
GW Delineation Standard		0.10	0.01	0.01	0.20	0.10	0.007	0.07	0.005	0.002	0.005	0.7	10
GW Cleanup Standard		0.10	0.01	153	2.04	2.04	0.58	0.204	0.038	0.0033	0.0088	0.70	10
TW-38	6/4/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-39	6/4/2014	0.040	0.034 J	< 0.01 UJ	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-40	6/3/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-41	6/3/2014	0.049	0.037	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA
	6/3/2014 Dup	0.050	0.038	0.012	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-42	6/2/2014	< 0.01	< 0.01	< 0.01	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-43	7/28/2015	0.0197	0.0129	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
	7/28/2015 Dup	0.0190	0.0148	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA
TW-44	7/28/2015	0.0163	0.0166	< 0.010	NA	NA	NA	NA	NA	NA	NA	NA	NA

NA - Sample not analyzed for this parameter.

J - Result qualified as estimated by the laboratory or as the result of data verification.

Dup - Duplicate sample

mg/L - milligrams per liter

^a MW-11 sample from 9/13/99 was highly turbid at time of sample collection; data not representative of groundwater conditions.

^b MW-24 samples from 1/11/12 were highly turbid at time of sample collection. Concentrations of dissolved total chromium and dissolved hexavalent chromium were 0.122 mg/L and 0.115 mg/L, respectively.

^c MW-24 samples from 10/2/12 were highly turbid at time of sample collection. Concentration of total dissolved chromium in the parent and duplicate samples was 0.134 mg/L. The samples were not analyzed for

Purple Highlight - Indicates concentration is greater than delineation standard.

Orange Highlight - Indicates concentration is greater than delineation and cleanup standard.

Table 5. Updated Project Milestone Schedule
Former MacGregor Golf Company
Albany, Georgia

Task Name	Projected Completion Date	Completion Date	Year 1: July 2012 - July 2013				Year 2: July 2013 - July 2014				Year 3: July 2014 - July 2015				Year 4: July 2015 - July 2016				Year 5: July 2016 - July 2017				Year 6: July 2017 - July 2018				Year 7: July 2018 - Dec 2018			
			2012		2013		2014		2015		2016		2017		2018															
			Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Enrollment in VRP	--	July 30, 2012																												
Preliminary Cost Estimate for Implementation of Remediation & Continuing Actions, and Financial Assurance Demonstration	Within 60 days of Enrollment ^a	March 13, 2013																												
Monthly Groundwater Level Measurements	Within 3 Months of Enrollment	November 6, 2012																												
Horizontal Delineation of Site COCs (on accessible property)	Within 6 Months of Enrollment	November 29, 2012																												
Semiannual Progress Report with Updated CSM	Within 6 Months of Enrollment	January 30, 2013																												
Semiannual Progress Report with Updated CSM	Within 12 Months of Enrollment	July 30, 2013																												
Vertical Delineation of Site COCs	Within 12 Months of Enrollment	May 31, 2013																												
Semiannual Progress Report with Updated CSM	Within 18 Months of Enrollment	January 30, 2014																												
Horizontal Delineation of Site COCs (on property previously inaccessible)	Within 24 Months of Enrollment	November 5, 2015																												
Semiannual Progress Report with Updated CSM	Within 24 Months of Enrollment	July 30, 2014																												
Semiannual Progress Report with Final Remediation Plan, Updated CSM, and Final Cost Estimate for Remediation and/or Continuing Actions	Within 30 Months of Enrollment	January 30, 2015																												
Active remediation, if necessary	Within 36 Months of Enrollment	NA																												
Semiannual Progress Report with Updated CSM	Within 36 Months of Enrollment	July 27, 2015																												
Annual Monitoring	Within 72 Months of Enrollment	Anticipated April 30, 2018																												
Semiannual Progress Report with Updated CSM	Within 42 Months of Enrollment	January 28, 2016																												
Semiannual Progress Report with Updated CSM	Within 48 Months of Enrollment	September 28, 2016																												
Compliance Status Report under the VRP with Certifications	Within 54 Months of Enrollment	January 30, 2017																												

Due date indicated on VRP Application.

On-site Horizontal
Delineation

Off-site Horizontal
Delineation

Vertical Delineation,
Final Remediation Plan, and Final
Cost Estimate

CSR Submittal to VRP
with Certifications

^a Due date for this task was extended per EPD's approval.

"X" Indicates task accomplished.

Table 6. Summary of Hours Invoiced by Professional Engineer This Period Former MacGregor Golf Company Albany, Georgia			
Registered PE	Month	Hours Invoiced	Description of Services
Trish Reifenberger, P.E. Georgia PE No. 20676	February 2016	0.00	* Project inactive while waiting on EPD's approval of updated model
	March 2016	0.25	* Reviewed monthly status update * Project inactive while waiting for parties to review UEC
	April 2016	1.00	* Reviewed monthly status update * Participated in monthly project status call * Reviewed groundwater monitoring data and well abandonment cost estimate
	May 2016	4.50	* Reviewed monthly status update * Participated in monthly project status call
	June 2016	1.00	* Reviewed monthly status update * Participated in monthly project status call * Project inactive while waiting for parties to review UEC
	July 2016	13.00	* Reviewed monthly status update * Participated in monthly project status call * Reviewed draft Final CSR
Total Hours Invoiced this Period		19.75	

Appendix A: Groundwater Sampling Field Data Sheets

April 2016

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-4

1. PROJECT INFORMATION

Project Number: 149071 Task Number: 100 Area of Concern: _____
Client: MACQUELON Personnel: CAGAT
Project Location: ALBANY, GA Weather: SUNNY, 80°F

2. WELL DATA

Date Measured: 4.5.16 Time: _____ Temporary Well: ☐ Yes ☐ No
Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 46.96 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 33.51 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 13.45 feet Well Volume: 2.25 gal Screened Interval (from GS): 28-41.5
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 4.5.16 Time: 1730 Equipment Model(s):
Purge Method: ☐ Bailor, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Volume to Purge (minimum): _____ well volumes or STABILITY gallons
Was well purged dry? ☐ Yes ☒ No Pumping Rate: 0.06 gal/min Calibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1745	1.0	6.26	20.46	0.524	123.1	4.09	15.80	34.05	
1755	1.3	6.26	20.41	0.534	121.9	2.22	32.91	34.05	
1805	1.75	6.29	20.41	0.541	119.5	1.01	40.7	34.05	
1815	2.25	6.33	20.40	0.541	117.8	0.66	7.97	34.05	
1825	2.5	6.34	20.37	0.542	116.5	0.52	5.92	34.05	
1835	3.0	6.35	20.38	0.541	116.3	0.46	5.95		Purge data continued on next sheet? ☐

4. SAMPLING DATA

Method(s): ☐ Bailor, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Depth to Water at Time of Sampling: 34.05 Field Filtered? ☐ Yes ☒ No
Sample ID: 16096-MW-4 Sample Date: 4.5.16 Sample Time: 1840 # of Containers: 2
Duplicate Sample Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____
Equipment Blank Collected? ☒ Yes ☐ No ID: 16096-EB-1 # of Containers: 2

Geochemical Analyses

Ferrous Iron: _____ mg/L
DO: _____ mg/L
Nitrate: _____ mg/L
Sulfate: _____ mg/L
Alkalinity: _____ mg/L

5. COMMENTS

EQUIPMENT BLANK (16096-EB-1, 1905)

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-11

1. PROJECT INFORMATION

Project Number: 149091 Task Number: 100 Area of Concern: _____
Client: Macgregor Personnel: GAGAT
Project Location: ALBANY, CA Weather: CLOUDY, 75°F

2. WELL DATA

Date Measured: 4.5.16 Time: AM Temporary Well: ☐ Yes ☐ No

Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 48.30 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 35.43 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 12.87 feet Well Volume: 2.15 gal Screened Interval (from GS): _____
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 4.6.16 Time: 1440 Equipment Model(s): _____

Purge Method: ☐ Bailor, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

Materials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable

Volume to Purge (minimum): _____ well volumes or STABILITY gallonsWas well purged dry? ☐ Yes ☒ No Pumping Rate: 0.06 gal/minCalibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1450	.75	6.56	22.13	0.538	23.0	15.72	101.8	35.4	
1500	1.5	6.54	22.07	0.538	27.9	7.33	100.2	35.4	
1510	2.2	6.57	21.97	0.531	30.8	1.42	71.2	35.4	
1520	3.0	6.58	22.01	0.520	34.4	1.24	41.3	35.4	
1530	3.5	6.59	21.93	0.516	37.7	1.18	20.8	35.4	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

Method(s): ☐ Bailor, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____

Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable

Materials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable

Depth to Water at Time of Sampling: 35.4 Field Filtered? ☐ Yes ☒ NoSample ID: 16099-MW-11 Sample Date: 4.6.16 Sample Time: 1610 # of Containers: 4Duplicate Sample Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____Equipment Blank Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

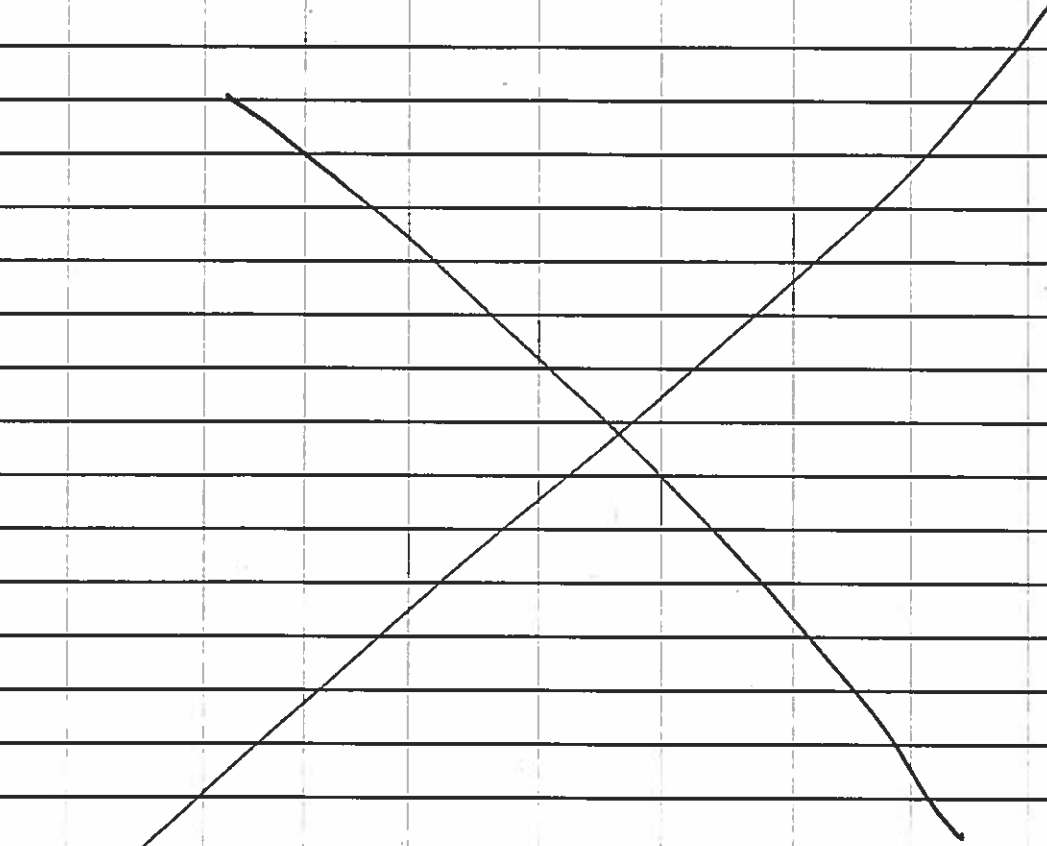
5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-11

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1540	4.5	6.58	21.93	0.510	43.7	1.09	9.21	35.4	
1550	5.5	6.58	21.92	0.508	49.0	1.04	0.54	35.4	
1600	6.5	6.58	21.87	0.505	57.1	1.01	0.21	35.4	
SAMPLED @ 1610									
									

Purge data continued on next sheet? ☐

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-15

1. PROJECT INFORMATION

Project Number: 149031 Task Number: 100 Area of Concern: _____
Client: Macallegon Personnel: CACAT
Project Location: Albany, GA Weather: Sunny, 60°F

2. WELL DATA

Date Measured: 4.5.16 Time: AM Temporary Well: ☐ Yes ☐ No

Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 44.12 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 28.59 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 15.53 feet Well Volume: 2.5 gal Screened Interval (from GS): 29-44
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.567 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 4.7.16 Time: 0905 Equipment Model(s): _____

Purge Method: ☐ Bailer, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Volume to Purge (minimum): _____ well volumes or 57401.174 gallons
Was well purged dry? ☐ Yes ☒ No Pumping Rate: 0.06 gal/min Calibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0915	0.9	7.19	20.80	0.173	29.7	8.77	119	29.2	
0925	1.5	7.06	20.59	0.176	39.4	8.57	110	29.2	
0935	2.0	7.09	20.52	0.133	41.6	3.53	70.2	29.5	
0945	2.5	7.07	20.53	0.180	44.8	2.18	44.6	29.5	
0955	3.0	7.09	20.54	0.181	46.9	1.83	12.6	29.5	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

Method(s): ☐ Bailer, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailer ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Depth to Water at Time of Sampling: 29.5 Field Filtered? ☐ Yes ☒ No
Sample ID: 16098-MW-15 Sample Date: 4.7.16 Sample Time: 1010 # of Containers: 4
Duplicate Sample Collected? ☒ Yes ☐ No ID: 16098-DUP # of Containers: 2
Equipment Blank Collected? ☒ Yes ☐ No ID: 16098-EB-2 # of Containers: 2

Geochemical Analyses

Ferrous Iron: _____ mg/L
DO: _____ mg/L
Nitrate: _____ mg/L
Sulfate: _____ mg/L
Alkalinity: _____ mg/L

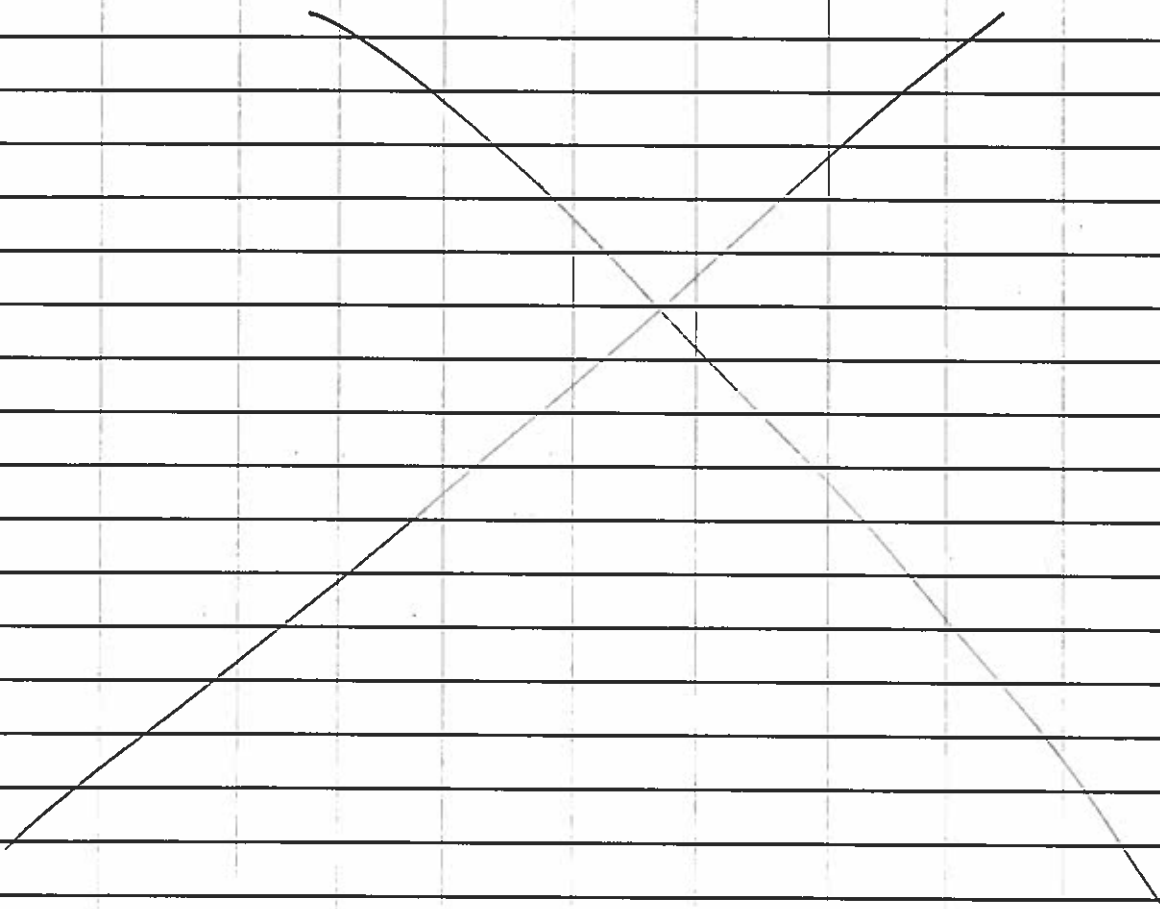
5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-19

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH	Temp	Spec. Cond.	ORP	DO	Turbidity	Water Level	Comments
		±0.1 su	±2°C	> of ±3% or ±10 µS/cm	> of ±10% or ±20 mV	> of ±10% or ±0.2 mg/L	≤ 10 NTU		
1000	3.25	7.12	20.56	0.183	48.0	1.71	8.75	29.5	
1005	3.5	7.13	20.52	0.183	48.8	1.65	7.71	29.5	
1010	3.75	7.13	20.57	0.184	49.7	1.47	7.01	29.5	
1015	4.0	7.14	20.57	0.183	50.0	1.45	6.64	29.5	
SAMPLED @ 1020									
									

Purge data continued on next sheet? ☐

2 of 2

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-24

1. PROJECT INFORMATION

Project Number: 149071 Task Number: 100 Area of Concern: _____
Client: MACALESTER Personnel: GAGAT
Project Location: ALBANY, GA Weather: SUNNY, 60°F

2. WELL DATA

Date Measured: 4.5.16 Time: AM Temporary Well: ☐ Yes ☐ No

Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 58.75 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 36.22 feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: _____ feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 22.53 feet Well Volume: 3.7 gal Screened Interval (from GS): 50-60
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 4.6.16 Time: 0830 Equipment Model(s)

Purge Method: ☐ Bailor, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____ 1. MP-50
Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____ 2. YSI
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____ 3. Bladder Pump
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable 4. DRT-15CE
Volume to Purge (minimum): _____ well volumes or STABILITY gallons
Was well purged dry? ☐ Yes ☒ No Pumping Rate: 0.06 gal/min Calibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0840	0.6	6.77	20.01	0.520	99.9	3.58	722.5	37.2	MILKY WHITE COLOR
0850	1.5	6.77	20.03	0.522	91.6	2.26	570.1	37.5	
0900	2.0	6.78	20.02	0.522	88.0	1.69	415.2	37.6	
0910	2.5	6.78	20.04	0.522	87.1	1.51	357.7	37.6	
0920	3.0	6.78	20.05	0.522	88.2	1.35	291.4	37.6	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

Method(s): ☐ Bailor, Size: _____ ☒ Bladder Pump ☐ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Depth to Water at Time of Sampling: 37.6 Field Filtered? ☐ Yes ☒ No
Sample ID: 16097-MW-24 Sample Date: 4.6.16 Sample Time: 1335 # of Containers: 4
Duplicate Sample Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____
Equipment Blank Collected? ☐ Yes ☒ No ID: _____ # of Containers: _____

Geochemical Analyses

Ferrous Iron: _____ mg/L
DO: _____ mg/L
Nitrate: _____ mg/L
Sulfate: _____ mg/L
Alkalinity: _____ mg/L

5. COMMENTS

Turbidity settled @ 37 NTU, Sampled After 5 Well
VOLUMES.

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-24

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0930	3.50	7.06	20.09	0.523	73.5	5.59	188.9	37.6	
0940	4.50	6.91	20.09	0.532	83.7	1.31	117.3	37.6	
0950	5.00	6.85	20.12	0.524	88.4	1.23	99.7	37.6	
1000	6.00	6.81	20.11	0.524	91.8	1.18	88.1	37.6	
1010	6.75	6.60	20.22	0.525	94.3	1.16	75.4	37.6	
1020	7.30	6.79	20.29	0.525	95.2	1.20	63.7	37.6	
1030	8.00	6.78	20.34	0.526	96.7	1.20	56.2	37.6	
1040	8.50	6.78	20.31	0.526	97.8	1.19	56.1	37.6	
1050	9.00	6.78	20.37	0.527	98.8	1.19	56.5	37.6	
1100	9.50	6.77	20.41	0.527	99.7	1.19	56.2	37.6	
1110	10.00	6.77	20.36	0.530	102.4	1.11	57.3	37.6	CLEARED YSS
1120	11.00	6.77	20.43	0.531	99.5	1.15	51.8	37.6	
1130	12.00	6.76	20.51	0.531	100.2	1.14	42.5	37.6	
1140	12.50	6.76	20.47	0.532	101.2	1.15	39.6	37.6	
1150	13.00	6.75	20.50	0.532	102.3	1.15	37.2	37.6	
1200	13.50	6.75	20.52	0.532	102.7	1.15	37.8	37.6	
1210	14.00	6.75	20.53	0.533	103.3	1.15	39.4	37.6	
1220	14.70	6.75	20.53	0.533	103.8	1.14	37.9	37.6	
1230	15.40	6.75	20.58	0.533	104.5	1.12	38.4	37.6	
1240	16.0	6.75	20.54	0.534	105.0	1.11	37.6	37.6	
1250	16.5	6.75	20.56	0.534	105.8	1.09	37.8	37.6	
1300	17.0	6.75	20.59	0.535	106.2	1.07	36.5	37.6	
1310	17.5	6.75	20.53	0.534	106.5	1.10	37.2	37.6	
1320	18.0	6.75	20.55	0.534	107.1	1.10	37.5	37.6	
1330	18.5	6.75	20.57	0.534	107.6	1.10	37.9	37.6	
SAMPLED @ 1335									

Purge data continued on next sheet? ☐

2 of 2

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-27

1. PROJECT INFORMATION

Project Number: 149071 Task Number: 100 Area of Concern: Taylor Property
Client: MacGregor Personnel: GAGAT
Project Location: ALBANY, GA Weather: SUNNY, 60°F

2. WELL DATA

Date Measured: 4.5.16 Time: AM Temporary Well: ☐ Yes ☐ No

Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 43.0 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 24.0 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 19 feet Well Volume: 3.17 gal Screened Interval (from GS): 33-43
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 4.5.16 Time: 0925 Equipment Model(s)

Purge Method: ☐ Bailor, Size: _____ ☐ Bladder Pump ☒ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Volume to Purge (minimum): — well volumes or STABILITY gallons
Was well purged dry? ☐ Yes ☒ No Pumping Rate: 0.05 gal/min Calibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
0935	1.25	7.00	22.54	0.317	165.2	11.53	41.3	29.32	
0940	1.5	7.48	22.23	0.231	167.4	9.79	17.66	30.75	
0945	1.7	7.78	21.25	0.254	170.5	7.84	15.41	30.23	
0950	1.9	7.95	21.08	0.241	174.2	6.85	12.22	29.91	
0955	2.1	8.29	21.06	0.224	171.5	6.42	10.28	29.78	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

Method(s): ☐ Bailor, Size: _____ ☐ Bladder Pump ☒ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____
Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ Disposable
Materials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ Disposable
Depth to Water at Time of Sampling: 32.5 Field Filtered? ☐ Yes ☒ No
Sample ID: 16096. MW-27 Sample Date: 4.5.16 Sample Time: 1040 # of Containers: 4
Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —
Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L
DO: _____ mg/L
Nitrate: _____ mg/L
Sulfate: _____ mg/L
Alkalinity: _____ mg/L

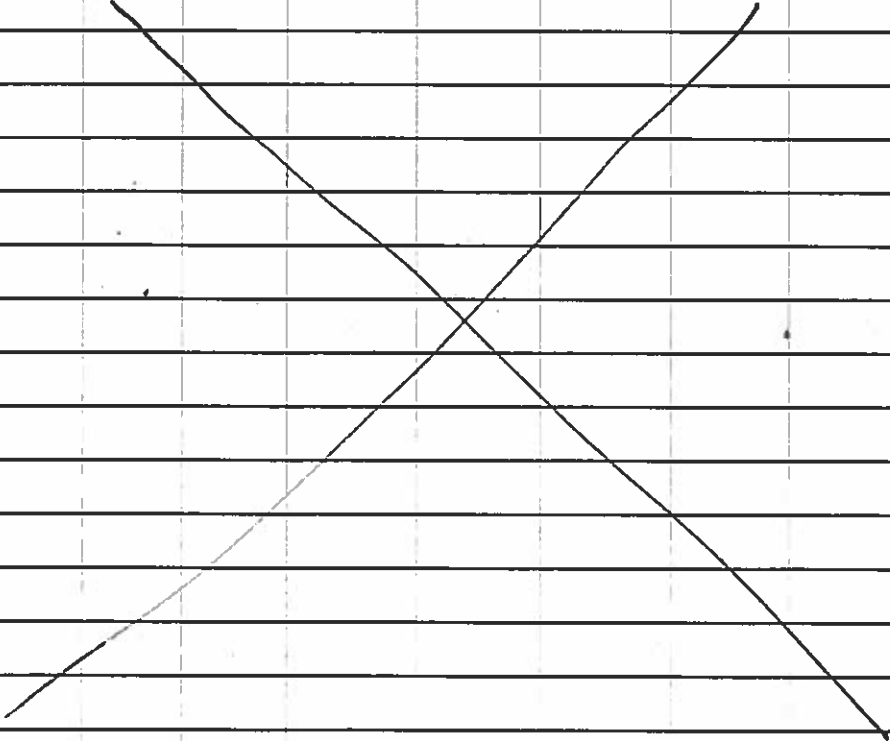
5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-27

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1000	2.25	8.70	22.19	0.222	158.2	6.75	7.57	30.32	
1005	2.5	8.58	22.17	0.230	156.9	4.57	7.01	30.92	
1010	2.7	8.29	22.29	0.244	155.7	3.45	6.05	31.19	
1015	2.9	8.16	22.25	0.249	154.1	2.55	5.71	31.53	
1020	3.1	8.00	22.28	0.259	152.9	2.19	5.28	31.95	
1025	3.3	7.95	22.26	0.259	151.5	1.94	4.99	32.08	
1030	3.5	8.02	22.27	0.257	151.3	1.89	4.61	32.40	
1035	3.7	8.00	22.27	0.256	151.1	1.87	4.59	32.5	
SAMPLED @ 1040									
									

Purge data continued on next sheet? ☐

2 of 2

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-28

1. PROJECT INFORMATION

Project Number: 149021 Task Number: 100 Area of Concern: TAYLOR PROPERTIES
Client: MACGREGOR Personnel: CRAGG
Project Location: TAYLOR PT ALBANY, GA Weather: SUNNY, 65°F

2. WELL DATA

Date Measured: 4.5.16 Time: AM Temporary Well: ☐ Yes ☒ No

Casing Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Screen Diameter: 2 inches Type: ☒ PVC ☐ Stainless ☐ Galv. Steel ☐ Teflon® ☐ Other: _____
Total Depth of Well: 43.0 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Static Water: 24.10 feet From: ☒ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Depth to Product: — feet From: ☐ Top of Well Casing (TOC) ☐ Top of Protective Casing ☐ Other: _____
Length of Water Column: 18.9 feet Well Volume: 3.15 gal Screened Interval (from GS): 33-43
Note: 1-in well = 0.041 gal/ft 2-in well = 0.167 gal/ft 4-in well = 0.667 gal/ft 6-in well = 1.469 gal/ft

3. PURGE DATA

Date Purged: 4.5.16 Time: 1125 Equipment Model(s):Purge Method: ☐ Bailor, Size: _____ ☐ Bladder Pump ☒ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☒ DisposableMaterials: Rope/Tubing ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ DisposableVolume to Purge (minimum): — well volumes or STABLEITY gallonsWas well purged dry? ☐ Yes ☒ No Pumping Rate: 0.07 gal/minCalibrated? ☒ Yes ☐ No

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1135	0.75	7.01	20.87	0.244	131.7	1.30	101.8	23.31	
1140	1.0	7.07	20.98	0.244	126.1	1.28	94.6	23.37	
1145	1.25	7.10	21.12	0.243	123.4	1.22	63.9	23.52	
1150	1.5	7.12	21.10	0.236	122.3	1.18	42.1	23.91	
1155	1.75	7.14	21.10	0.226	121.2	1.15	32.8	23.91	

Purge data continued on next sheet? ☒

4. SAMPLING DATA

Method(s): ☐ Bailor, Size: _____ ☐ Bladder Pump ☒ 2" Sub. Pump ☐ 4" Sub. Pump
☐ Centrifugal Pump ☐ Peristaltic Pump ☐ Inertial Lift Pump ☐ Other: _____Materials: Pump/Bailor ☐ Polyethylene ☒ Stainless ☐ PVC ☐ Teflon® ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☒ Field-Cleaned ☐ DisposableMaterials: Tubing/Rope ☒ Polyethylene ☐ Polypropylene ☐ Teflon® ☐ Nylon ☐ Other: _____
☐ Dedicated ☐ Prepared Off-Site ☐ Field-Cleaned ☒ DisposableDepth to Water at Time of Sampling: 23.95 Field Filtered? ☐ Yes ☒ NoSample ID: 16096-MW-28 Sample Date: 4.5.16 Sample Time: 1230 # of Containers: 4Duplicate Sample Collected? ☐ Yes ☒ No ID: — # of Containers: —Equipment Blank Collected? ☐ Yes ☒ No ID: — # of Containers: —

Geochemical Analyses

Ferrous Iron: _____ mg/L

DO: _____ mg/L

Nitrate: _____ mg/L

Sulfate: _____ mg/L

Alkalinity: _____ mg/L

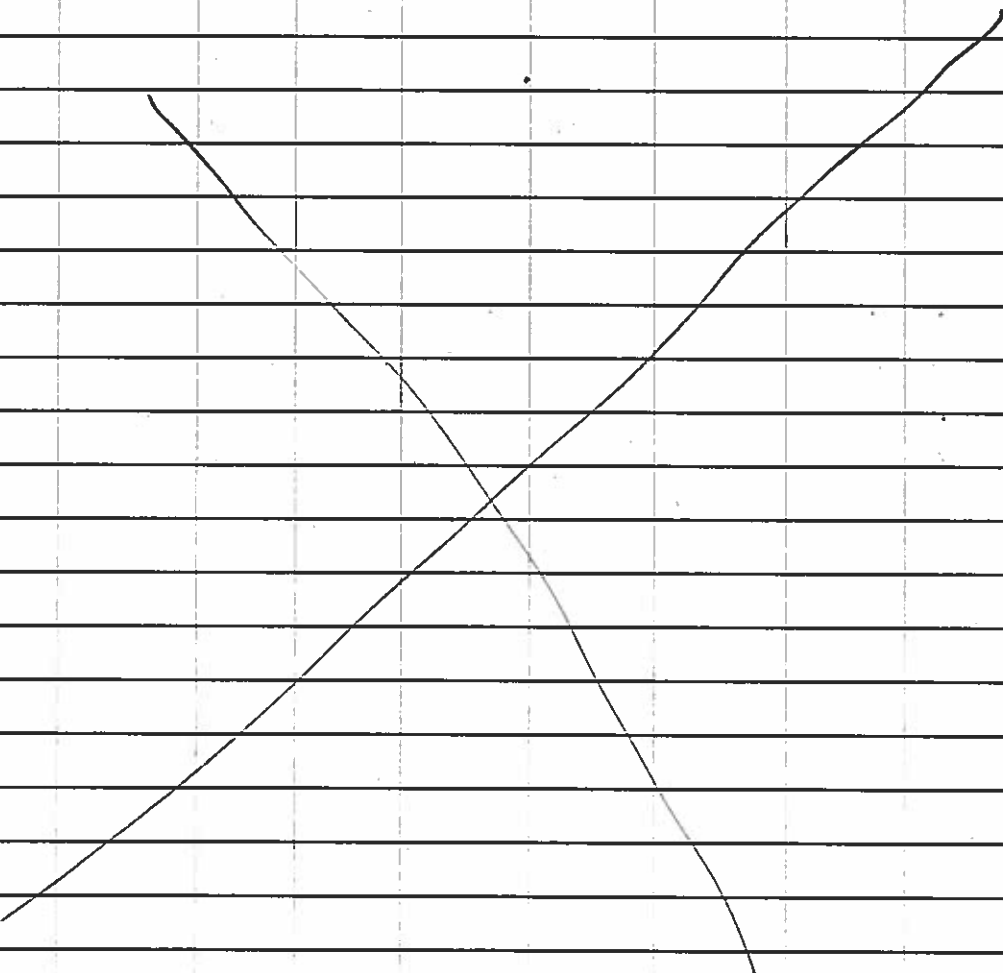
5. COMMENTS

Note: Include comments such as well condition, odor, presence of NAPL, or other items not on the field data sheet.

GROUNDWATER SAMPLING FIELD DATA SHEET

WELL ID: MW-28

3. PURGE DATA (continued from page 1)

Time	Cum. Gallons Removed (gal)	pH ±0.1 su	Temp ±2°C	Spec. Cond. > of ±3% or ±10 µS/cm	ORP > of ±10% or ±20 mV	DO > of ±10% or ±0.2 mg/L	Turbidity ≤ 10 NTU	Water Level	Comments
1200	2.5	7.16	21.09	0.221	120.2	1.14	27.9	23.95	
1205	2.75	7.16	21.07	0.219	119.8	1.12	22.4	23.95	
1210	3.2	7.16	21.05	0.217	119.1	1.10	17.6	23.95	
1215	3.6	7.17	21.06	0.216	118.6	1.09	14.9	23.95	
1220	4.0	7.17	21.07	0.215	118.1	1.09	11.8	23.95	
1225	4.3	7.18	21.07	0.215	117.5	1.08	9.7	23.95	
SAMPLED @ 1230									
									

Purge data continued on next sheet? ☐

Appendix B: Laboratory Analytical Reports

April 2016

1. PROJECT INFORMATION

Today's Date: _____

Project Number: _____ Project Name/Client: _____
Project Manager: _____ Sampled By: _____
Laboratory: _____ Order No.: _____

2. SAMPLE INFORMATION

Purpose of sampling: _____

Total number of samples: _____

☐ Groundwater: _____ ☐ Soil: _____ ☐ Soil Gas: _____ ☐ Trip Blank: _____
☐ Surface water: _____ ☐ Sediment: _____ ☐ Other: _____ ☐ Field Blank: _____
☐ Drinking water: _____ ☐ Air: _____ ☐ Other: _____ ☐ Equip Blank: _____

Analyses requested: _____

Method detection limits (MDLs) or reporting limits (RLs) requested: _____

Duplicates: _____

3. DATA VERIFICATION

Check yes or no. Refer to applicable Data Verification Guidelines to determine appropriate action.

Yes No NA Was the Chain of Custody intact?

If no: Notes: _____

Yes No NA Were custody seals intact on samples bottles and/or coolers as necessary?

If no: Notes: _____

Yes No NA Were cooler temperatures within the acceptable range of 0-6°C?

If no: Notes: _____

Yes No NA Were samples physically and chemically preserved properly (i.e. no bubbles in VOC vials)

If no: Notes: _____

Yes No NA Was the case narrative of the analytical report free of any quality issues, discrepancies, etc.?

If no: Notes: _____

Yes No NA Were all samples labeled, analyzed, and reported correctly? (no samples held, no wrong analyses, etc.)

If no: If within holding time, call lab immediately. Notes: _____

Yes No NA Were all samples analyzed within holding time?

If no: Notes: _____

Yes No NA Were appropriate analytes reported?

If no: Notes: _____

Yes No NA Were soil and/or sediment concentrations reported appropriately? (DW vs WW)

If no: Call lab immediately to verify. Notes: _____

Yes No NA If analyzed for the following parameters, was the following true for all analytes?

Yes No NA Total metals ≥ Dissolved metals

Yes No NA TKN > Organic nitrogen

Yes No NA TKN > Ammonia (NH₃)

Yes No NA COD > TOC

Yes No NA COD > BOD

If no: Report to project manager and contact lab's QA/QC manager if needed. Notes: _____

Yes No NA Were method detection limits (MDL), reporting limits (RLs), and/or dilution factors appropriate?

If no: Report to project manager and contact lab if needed. Notes: _____

Yes No NA Were surrogate % recoveries within the acceptable range of LCL ≤ x ≤ UCL?

If no: Notes: _____

Yes No NA Were target analytes detected in any field, equipment, and/or laboratory blanks?

If yes: Notes: _____

Yes	No	NA	Were any target analytes detected below practical quantitation limits (PQLs)?
If yes: Notes: _____			
Yes	No	NA	Were any sample duplicates collected?
If yes: Notes: _____			
Yes	No	NA	Were any laboratory duplicates reported for project samples?
If yes: Notes: _____			
Yes	No	NA	Were any matrix spikes reported for project samples?
If yes: Notes: _____			
Yes	No	NA	Were any laboratory control samples reported?
If yes: Notes: _____			
Yes	No	NA	Were calibration standards reported?
If yes: Notes: _____			

4. COMMENTS & SUMMARY OF ACTIONS TAKEN (Attach additional pages if necessary)



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 14, 2016

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor

Dear Sarah Jones:

Order No: 1604353

Analytical Environmental Services, Inc. received 2 samples on 4/6/2016 7:35:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order:

1604353

Date: 4.5.16

Page 1 of 1

COMPANY: BROWN + CALDWELL		ADDRESS: 990 HAMMOND DR ATLANTA, GA		ANALYSIS REQUESTED												Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers				
PHONE:		FAX:		TOTAL CHROM TOTAL HEX CHROM DISSOLVED CHROM DISSOLVED HEX CHROM																		
SAMPLED BY: GEOFF GAGAT		SIGNATURE: 		PRESERVATION (See codes)												REMARKS						
#	SAMPLE ID	DATE	TIME	Grab	Composite	Matrix (See codes)	1	2	3	4	5	6	7	8	9				10	11	12	13
1	16096-MW-27	4.5.16	1040	X		GW	X	X	X	X												4
2	16096-MW-28	4.5.16	1230	X		GW	X	X	X	X												4
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						
13																						
14																						

RELINQUISHED BY	DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1:	4.5.16/1800	1:	4/6/16 735	PROJECT NAME:	MACAREGOR		Total # of Containers
2:		2:		PROJECT #:			Turnaround Time Request ☒ Standard 5 Business Days ☐ 2 Business Day Rush ☐ Next Business Day Rush ☐ Same Day Rush (auth req.) ☐ Other _____
3:		3:		SITE ADDRESS:	ALBANY, GA		
				SEND REPORT TO:	SESONES@BROWN+CALD.COM		
SPECIAL INSTRUCTIONS/COMMENTS:		SHIPMENT METHOD		INVOICE TO:		STATE PROGRAM (if any):	
* CHROMIUM BY EPA 6010 B		OUT / / VIA:		(IF DIFFERENT FROM ABOVE)		E-mail? ☒ N; Fax? ☒ Y	
* HEX/TRIVALENT CHROM BY EPA SW 7196		IN / / VIA:				DATA PACKAGE: I ☒ II ☐ III ☐ IV	
* SHORT HOLD TIMES (24 HR)		CLIENT ☒ UPS MAIL COURIER					
		GREYHOUND OTHER _____		QUOTE #:		PO#:	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Page 2 of 10

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 14-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604353-001

Client Sample ID: 16096-MW-27
 Collection Date: 4/5/2016 10:40:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010D					(SW3005A)			
Chromium	BRL	0.0100		mg/L	222230	1	04/06/2016 18:09	IO
Hexavalent Chromium, Dissolved SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314038	1	04/06/2016 09:40	OM
Chromium, Hexavalent	BRL	0.0100		mg/L	R314038	1	04/06/2016 09:40	OM
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314035	1	04/06/2016 09:40	OM
Chromium, Hexavalent	0.0115	0.0100		mg/L	R314035	1	04/06/2016 09:40	OM
METALS, TOTAL SW6010D					(SW3010A)			
Chromium	BRL	0.0100		mg/L	222392	1	04/11/2016 17:16	IO

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 14-Apr-16

Client:	BROWN AND CALDWELL	Client Sample ID:	16096-MW-28
Project Name:	MacGregor	Collection Date:	4/5/2016 12:30:00 PM
Lab ID:	1604353-002	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010D (SW3005A)								
Chromium	BRL	0.0100		mg/L	222230	1	04/06/2016 18:13	IO
Hexavalent Chromium, Dissolved SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314038	1	04/06/2016 09:40	OM
Chromium, Hexavalent	BRL	0.0100		mg/L	R314038	1	04/06/2016 09:40	OM
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314035	1	04/06/2016 09:40	OM
Chromium, Hexavalent	BRL	0.0100		mg/L	R314035	1	04/06/2016 09:40	OM
METALS, TOTAL SW6010D (SW3010A)								
Chromium	BRL	0.0100		mg/L	222392	1	04/11/2016 17:23	IO

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown & Caldwell

Work Order Number 1604353

Checklist completed by [Signature] 4/16/16
Signature Date

Carrier name: FedEx ☒ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☐ No ☐ Not Present ☒

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}\text{C}$)* Yes ☒ No ☐

Cooler #1 2.5 Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☒ Yes ☐ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by [Signature]

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL
Project Name: MacGregor
Lab Order: 1604353

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604353-001A	16096-MW-27	4/5/2016 10:40:00AM	Groundwater	TOTAL METALS BY ICP		4/8/2016 4:45:00 PM	04/11/2016
1604353-001B	16096-MW-27	4/5/2016 10:40:00AM	Groundwater	Hexavalent Chromium			04/06/2016
1604353-001C	16096-MW-27	4/5/2016 10:40:00AM	Groundwater	Hexavalent Chromium, Dissolved			04/06/2016
1604353-001D	16096-MW-27	4/5/2016 10:40:00AM	Groundwater	DISSOLVED METALS BY ICP		4/6/2016 10:30:00 AM	04/06/2016
1604353-002A	16096-MW-28	4/5/2016 12:30:00PM	Groundwater	TOTAL METALS BY ICP		4/8/2016 4:45:00 PM	04/11/2016
1604353-002B	16096-MW-28	4/5/2016 12:30:00PM	Groundwater	Hexavalent Chromium			04/06/2016
1604353-002C	16096-MW-28	4/5/2016 12:30:00PM	Groundwater	Hexavalent Chromium, Dissolved			04/06/2016
1604353-002D	16096-MW-28	4/5/2016 12:30:00PM	Groundwater	DISSOLVED METALS BY ICP		4/6/2016 10:30:00 AM	04/06/2016

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604353

ANALYTICAL QC SUMMARY REPORT

BatchID: 222230

Sample ID: MB-222230	Client ID:						Units: mg/L	Prep Date: 04/06/2016	Run No: 314132		
SampleType: MBLK	TestCode: METALS, DISSOLVED	SW6010D						BatchID: 222230	Analysis Date: 04/06/2016	Seq No: 6758355	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100

Sample ID: LCS-222230	Client ID:						Units: mg/L	Prep Date: 04/06/2016	Run No: 314132		
SampleType: LCS	TestCode: METALS, DISSOLVED	SW6010D						BatchID: 222230	Analysis Date: 04/06/2016	Seq No: 6758356	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9766 0.0100 1.000 97.7 80 120

Sample ID: 1603T13-017DMS	Client ID:					Units: mg/L	Prep Date: 04/06/2016	Run No: 314132			
SampleType: MS	TestCode: METALS, DISSOLVED	SW6010D	BatchID: 222230				Analysis Date: 04/06/2016	Seq No: 6758358			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9807 0.0100 1.000 0.0009618 98.0 75 125

Sample ID: 1603T13-017DMSD		Client ID:		Units: mg/L			Prep Date: 04/06/2016		Run No: 314132														
SampleType: MSD		TestCode: METALS, DISSOLVED		SW6010D		BatchID: 222230		Analysis Date: 04/06/2016		Seq No: 6758359													
Analyte		Result		RPT Limit		SPK value		SPK Ref Val		%REC		Low Limit		High Limit		RPD Ref Val		%RPD		RPD Limit		Qual	

Chromium 0.9660 0.0100 1.000 0.0009618 96.5 75 125 0.9807 1.50 20

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: BROWN AND CALDWELL
Project Name: MacGregor
Workorder: 1604353

ANALYTICAL QC SUMMARY REPORT

BatchID: 222392

Sample ID: MB-222392	Client ID:					Units: mg/L	Prep Date: 04/08/2016	Run No: 314362			
SampleType: MBLK	TestCode: METALS, TOTAL	SW6010D	BatchID: 222392				Analysis Date: 04/11/2016	Seq No: 6763910			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100

Sample ID: LCS-222392	Client ID:					Units: mg/L	Prep Date: 04/08/2016	Run No: 314362			
SampleType: LCS	TestCode: METALS, TOTAL	SW6010D	BatchID: 222392				Analysis Date: 04/11/2016	Seq No: 6763911			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.030 0.0100 1.000 103 80 120

Sample ID: 1604467-001BMS	Client ID:					Units: mg/L	Prep Date: 04/08/2016	Run No: 314362			
SampleType: MS	TestCode: METALS, TOTAL	SW6010D	BatchID: 222392				Analysis Date: 04/11/2016	Seq No: 6763913			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.011 0.0100 1.000 0.0009054 101 75 125

Sample ID: 1604467-001BMSD	Client ID:					Units: mg/L	Prep Date: 04/08/2016	Run No: 314362			
SampleType: MSD	TestCode: METALS, TOTAL	SW6010D	BatchID: 222392				Analysis Date: 04/11/2016	Seq No: 6763914			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.010 0.0100 1.000 0.0009054 101 75 125 1.011 0.123 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604353

ANALYTICAL QC SUMMARY REPORT

BatchID: R314035

Sample ID: MB-R314035	Client ID:					Units: mg/L	Prep Date:	Run No: 314035			
SampleType: MBLK	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R314035	Analysis Date: 04/06/2016	Seq No: 6755750			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium as Cr+3

BRL

0.0100

Chromium, Hexavalent

BRL

0.0100

Sample ID: LCS-R314035	Client ID:					Units: mg/L	Prep Date:	Run No: 314035			
SampleType: LCS	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R314035	Analysis Date: 04/06/2016	Seq No: 6755751			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.5335

0.0100

0.5000

107

90

110

Sample ID: 1604353-001BMS	Client ID: 16096-MW-27	Units: mg/L			Prep Date:			Run No: 314035			
SampleType: MS	TestCode: Hexavalent Chromium in Water	SW7196A			BatchID: R314035			Analysis Date: 04/06/2016		Seq No: 6755753	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.5182

0.0100

0.5000

0.01150

101

85

115

Sample ID: 1604353-001BMSD	Client ID: 16096-MW-27	Units: mg/L			Prep Date:			Run No: 314035			
SampleType: MSD	TestCode: Hexavalent Chromium in Water SW7196A	BatchID: R314035			Analysis Date: 04/06/2016			Seq No: 6755754			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.4975

0.0100

0.5000

0.01150

97.2

85

115

0.5182

4.08

20

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604353

ANALYTICAL QC SUMMARY REPORT

BatchID: R314038

Sample ID: MB-R314038	Client ID:					Units: mg/L	Prep Date:	Run No: 314038			
SampleType: MBLK	TestCode: Hexavalent Chromium, Dissolved	SW7196A				BatchID: R314038	Analysis Date: 04/06/2016	Seq No: 6755775			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium as Cr+3

BRL

0.0100

Chromium, Hexavalent

BRL

0.0100

Sample ID: LCS-R314038	Client ID:					Units: mg/L	Prep Date:		Run No: 314038		
SampleType: LCS	TestCode: Hexavalent Chromium, Dissolved	SW7196A				BatchID: R314038	Analysis Date: 04/06/2016		Seq No: 6755776		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.5297

0.0100

0.5000

106

90

110

Sample ID: 1604353-001CMS	Client ID: 16096-MW-27	Units: mg/L			Prep Date:			Run No: 314038			
SampleType: MS	TestCode: Hexavalent Chromium, Dissolved SW7196A	BatchID: R314038			Analysis Date: 04/06/2016			Seq No: 6755779			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.5182

0.0100

0.5000

0.008200

102

85

115

Sample ID: 1604353-001CMSD	Client ID: 16096-MW-27				Units: mg/L	Prep Date:			Run No: 314038		
SampleType: MSD	TestCode: Hexavalent Chromium, Dissolved	SW7196A				BatchID: R314038	Analysis Date: 04/06/2016			Seq No: 6755780	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.5182

0.0100

0.5000

0.008200

102

85

115

0.5182

0

20

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

1. PROJECT INFORMATION

Today's Date: _____

Project Number: _____ Project Name/Client: _____
 Project Manager: _____ Sampled By: _____
 Laboratory: _____ Order No.: _____

2. SAMPLE INFORMATION

Purpose of sampling: _____

Total number of samples: _____

☐ Groundwater: _____ ☐ Soil: _____ ☐ Soil Gas: _____ ☐ Trip Blank: _____

☐ Surface water: _____ ☐ Sediment: _____ ☐ Other: _____ ☐ Field Blank: _____

☐ Drinking water: _____ ☐ Air: _____ ☐ Other: _____ ☐ Equip Blank: _____

Analyses requested: _____

Method detection limits (MDLs) or reporting limits (RLs) requested: _____

Duplicates: _____

3. DATA VERIFICATION

Check yes or no. Refer to applicable Data Verification Guidelines to determine appropriate action.

Yes No NA Was the Chain of Custody intact?

If no: Notes: _____

Yes No NA Were custody seals intact on samples bottles and/or coolers as necessary?

If no: Notes: _____

Yes No NA Were cooler temperatures within the acceptable range of 0-6°C?

If no: Notes: _____

Yes No NA Were samples physically and chemically preserved properly (i.e. no bubbles in VOC vials)

If no: Notes: _____

Yes No NA Was the case narrative of the analytical report free of any quality issues, discrepancies, etc.?

If no: Notes: _____

Yes No NA Were all samples labeled, analyzed, and reported correctly? (no samples held, no wrong analyses, etc.)

If no: If within holding time, call lab immediately. Notes: _____

Yes No NA Were all samples analyzed within holding time?

If no: Notes: _____

Yes No NA Were appropriate analytes reported?

If no: Notes: _____

Yes No NA Were soil and/or sediment concentrations reported appropriately? (DW vs WW)

If no: Call lab immediately to verify. Notes: _____

Yes No NA If analyzed for the following parameters, was the following true for all analytes?

Yes No NA Total metals ≥ Dissolved metals

Yes No NA TKN > Organic nitrogen

Yes No NA TKN > Ammonia (NH₃)

Yes No NA COD > TOC

Yes No NA COD > BOD

If no: Report to project manager and contact lab's QA/QC manager if needed. Notes: _____

Yes No NA Were method detection limits (MDL), reporting limits (RLs), and/or dilution factors appropriate?

If no: Report to project manager and contact lab if needed. Notes: _____

Yes No NA Were surrogate % recoveries within the acceptable range of LCL ≤ x ≤ UCL?

If no: Notes: _____

Yes No NA Were target analytes detected in any field, equipment, and/or laboratory blanks?

If yes: Notes: _____

Yes No NA Were any target analytes detected below practical quantitation limits (PQLs)?

If yes: Notes: _____

Yes No NA Were any sample duplicates collected?

If yes: Notes: _____

Yes No NA Were any laboratory duplicates reported for project samples?

If yes: Notes: _____

Yes No NA Were any matrix spikes reported for project samples?

If yes: Notes: _____

Yes No NA Were any laboratory control samples reported?

If yes: Notes: _____

Yes No NA Were calibration standards reported?

If yes: Notes: _____

4. COMMENTS & SUMMARY OF ACTIONS TAKEN (Attach additional pages if necessary)



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 15, 2016

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor

Dear Sarah Jones:

Order No: 1604463

Analytical Environmental Services, Inc. received 2 samples on 4/7/2016 7:30:00 AM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
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Ioana Pacurar
Project Manager



AES

ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order: 1604463

Date: 4-6-16 Page 1 of 1

COMPANY: BROWN + CALDWELL		ADDRESS: 990 HAMMOND DRIVE ATLANTA, GA 30328		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers															
PHONE:		FAX:		<table border="1"> <tr> <td>TOTAL CHROM</td> <td>TOTAL HEX CHROM</td> <td>DISSOLVED CHROM</td> <td>DISSOLVED HEX CHROM</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>													TOTAL CHROM	TOTAL HEX CHROM	DISSOLVED CHROM	DISSOLVED HEX CHROM											
TOTAL CHROM	TOTAL HEX CHROM	DISSOLVED CHROM	DISSOLVED HEX CHROM																												
SAMPLED BY: GEOFF CASAT		SIGNATURE: 		PRESERVATION (See codes)										REMARKS																	
#	SAMPLE ID	SAMPLED DATE TIME		Grab	Composite	Matrix (See codes)	Z	ZD	EP	EA																					
1	16097-MW-24	4-6-16	1335	X		GW	X	X	X	X																					
2	16097-MW-11	4-6-16	1610	X		GW	X	X	X	X																					
3																															
4																															
5																															
6																															
7																															
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RELINQUISHED BY		DATE/TIME	RECEIVED BY	DATE/TIME	PROJECT INFORMATION		RECEIPT	
1: GEOFF CASAT		4-6-16/1730	1: TAMARA DELIZADO	4/7/16 730	PROJECT NAME: MCCREGGON		Total # of Containers 8	
2:			2:		PROJECT #:		Turnaround Time Request	
3:			3:		SITE ADDRESS: ALBANY, GA		Standard 5 Business Days	
					SEND REPORT TO: SESONES@BROWNCALD.COM		2 Business Day Rush	
SPECIAL INSTRUCTIONS/COMMENTS: * CHROMIUM BY EPA 60103 * HEX/TRIAXENT CHROM BY EPA SW 7196 * SHORT HOLD TIMES (24 HR)			SHIPMENT METHOD OUT / / VIA: IN / / VIA: CLIENT ☒ FedEx UPS MAIL COURIER GREYHOUND OTHER		INVOICE TO: (IF DIFFERENT FROM ABOVE)		Next Business Day Rush	
					QUOTE #:		Same Day Rush (auth req.)	
					PO#:		Other	
SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.					STATE PROGRAM (if any):		E-mail? ☒ N; Fax? ☒ Y	
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.					DATA PACKAGE: I ☒ III IV			

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Page 2 of 10

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604463-001

Client Sample ID: 16097-MW-24
 Collection Date: 4/6/2016 1:35:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010D					(SW3005A)			
Chromium	0.223	0.0100		mg/L	222431	1	04/11/2016 12:30	IO
Hexavalent Chromium, Dissolved SW7196A								
Chromium as Cr+3	0.0137	0.0100		mg/L	R314598	1	04/07/2016 12:00	JC
Chromium, Hexavalent	0.209	0.0100		mg/L	R314598	1	04/07/2016 12:00	JC
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	0.0328	0.0100		mg/L	R314622	1	04/07/2016 12:00	JC
Chromium, Hexavalent	0.209	0.0100		mg/L	R314622	1	04/07/2016 12:00	JC
METALS, TOTAL SW6010D					(SW3010A)			
Chromium	0.242	0.0100		mg/L	222392	1	04/11/2016 17:31	IO

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604463-002

Client Sample ID: 16097-MW-11
 Collection Date: 4/6/2016 4:10:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010D (SW3005A)								
Chromium	BRL	0.0100		mg/L	222431	1	04/11/2016 12:57	IO
Hexavalent Chromium, Dissolved SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314598	1	04/07/2016 12:00	JC
Chromium, Hexavalent	BRL	0.0100		mg/L	R314598	1	04/07/2016 12:00	JC
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314622	1	04/07/2016 12:00	JC
Chromium, Hexavalent	BRL	0.0100		mg/L	R314622	1	04/07/2016 12:00	JC
METALS, TOTAL SW6010D (SW3010A)								
Chromium	BRL	0.0100		mg/L	222392	1	04/11/2016 17:35	IO

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown & Caldwell

Work Order Number 1604463

Checklist completed by [Signature] 4/7/16
Signature Date

Carrier name: FedEx ☒ UPS ☐ Courier ☐ Client ☐ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☒ No ☐ Not Present ☐

Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}\text{C}$) * Yes ☒ No ☐

Cooler #1 43 Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☒ Yes ☐ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by [Signature]

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL
Project Name: MacGregor
Lab Order: 1604463

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604463-001A	16097-MW-24	4/6/2016 1:35:00PM	Groundwater	TOTAL METALS BY ICP		4/8/2016 4:45:00PM	04/11/2016
1604463-001B	16097-MW-24	4/6/2016 1:35:00PM	Groundwater	Hexavalent Chromium			04/07/2016
1604463-001C	16097-MW-24	4/6/2016 1:35:00PM	Groundwater	Hexavalent Chromium, Dissolved			04/07/2016
1604463-001D	16097-MW-24	4/6/2016 1:35:00PM	Groundwater	DISSOLVED METALS BY ICP		4/11/2016 11:42:00AM	04/11/2016
1604463-002A	16097-MW-11	4/6/2016 4:10:00PM	Groundwater	TOTAL METALS BY ICP		4/8/2016 4:45:00PM	04/11/2016
1604463-002B	16097-MW-11	4/6/2016 4:10:00PM	Groundwater	Hexavalent Chromium			04/07/2016
1604463-002C	16097-MW-11	4/6/2016 4:10:00PM	Groundwater	Hexavalent Chromium, Dissolved			04/07/2016
1604463-002D	16097-MW-11	4/6/2016 4:10:00PM	Groundwater	DISSOLVED METALS BY ICP		4/11/2016 11:42:00AM	04/11/2016

Client: BROWN AND CALDWELL
Project Name: MacGregor
Workorder: 1604463

ANALYTICAL QC SUMMARY REPORT

BatchID: 222392

Sample ID: MB-222392	Client ID:					Units: mg/L	Prep Date: 04/08/2016	Run No: 314362			
SampleType: MBLK	TestCode: METALS, TOTAL	SW6010D	BatchID: 222392				Analysis Date: 04/11/2016	Seq No: 6763910			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100

Sample ID: LCS-222392	Client ID:					Units: mg/L	Prep Date: 04/08/2016	Run No: 314362			
SampleType: LCS	TestCode: METALS, TOTAL	SW6010D	BatchID: 222392				Analysis Date: 04/11/2016	Seq No: 6763911			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.030 0.0100 1.000 103 80 120

Sample ID: 1604467-001BMS	Client ID:					Units: mg/L	Prep Date: 04/08/2016	Run No: 314362			
SampleType: MS	TestCode: METALS, TOTAL	SW6010D	BatchID: 222392				Analysis Date: 04/11/2016	Seq No: 6763913			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.011 0.0100 1.000 0.0009054 101 75 125

Sample ID: 1604467-001BMSD	Client ID:					Units: mg/L	Prep Date: 04/08/2016	Run No: 314362			
SampleType: MSD	TestCode: METALS, TOTAL	SW6010D	BatchID: 222392				Analysis Date: 04/11/2016	Seq No: 6763914			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.010 0.0100 1.000 0.0009054 101 75 125 1.011 0.123 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor
Workorder: 1604463

ANALYTICAL QC SUMMARY REPORT

BatchID: 222431

Sample ID: MB-222431	Client ID:					Units: mg/L	Prep Date: 04/11/2016	Run No: 314352			
SampleType: MBLK	TestCode: METALS, DISSOLVED	SW6010D				BatchID: 222431	Analysis Date: 04/11/2016	Seq No: 6763869			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100

Sample ID: LCS-222431	Client ID:					Units: mg/L	Prep Date: 04/11/2016	Run No: 314352			
SampleType: LCS	TestCode: METALS, DISSOLVED	SW6010D				BatchID: 222431	Analysis Date: 04/11/2016	Seq No: 6763871			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9908 0.0100 1.000 99.1 80 120

Sample ID: 1604463-001DMS	Client ID: 16097-MW-24	Units: mg/L	Prep Date: 04/11/2016	Run No: 314352							
SampleType: MS	TestCode: METALS, DISSOLVED SW6010D	BatchID: 222431	Analysis Date: 04/11/2016	Seq No: 6763877							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.191 0.0100 1.000 0.2230 96.8 75 125

Sample ID: 1604463-001DMSD	Client ID: 16097-MW-24	Units: mg/L			Prep Date: 04/11/2016	Run No: 314352					
SampleType: MSD	TestCode: METALS, DISSOLVED SW6010D	BatchID: 222431			Analysis Date: 04/11/2016	Seq No: 6763879					
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.209 0.0100 1.000 0.2230 98.6 75 125 1.191 1.49 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: BROWN AND CALDWELL
Project Name: MacGregor
Workorder: 1604463

ANALYTICAL QC SUMMARY REPORT

BatchID: R314598

Sample ID: MB-R314598	Client ID:	Units: mg/L				Prep Date:		Run No: 314598			
SampleType: MBLK	TestCode: Hexavalent Chromium, Dissolved	BatchID: R314598				Analysis Date: 04/07/2016		Seq No: 6769376			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium as Cr+3 BRL 0.0100
Chromium, Hexavalent BRL 0.0100

Sample ID: LCS-R314598	Client ID:					Units: mg/L	Prep Date:		Run No: 314598		
SampleType: LCS	TestCode: Hexavalent Chromium, Dissolved	SW7196A				BatchID: R314598	Analysis Date: 04/07/2016		Seq No: 6769377		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.4997 0.0100 0.5000 99.9 90 110

Sample ID: 1604463-001CMS	Client ID: 16097-MW-24	Units: mg/L	Prep Date:	Run No: 314598							
SampleType: MS	TestCode: Hexavalent Chromium, Dissolved SW7196A	BatchID: R314598	Analysis Date: 04/07/2016	Seq No: 6769381							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.7351 0.0100 0.5000 0.2093 105 85 115

Sample ID: 1604463-001CMSD	Client ID: 16097-MW-24	Units: mg/L	Prep Date:	Run No: 314598							
SampleType: MSD	TestCode: Hexavalent Chromium, Dissolved SW7196A	BatchID: R314598	Analysis Date: 04/07/2016	Seq No: 6769382							
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent 0.7378 0.0100 0.5000 0.2093 106 85 115 0.7351 0.367 20

Qualifiers:	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604463

ANALYTICAL QC SUMMARY REPORT

BatchID: R314622

Sample ID: MB-R314622	Client ID:					Units: mg/L	Prep Date:		Run No: 314622		
SampleType: MBLK	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R314622	Analysis Date: 04/07/2016		Seq No: 6769902		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium as Cr+3

BRL

0.0100

Chromium, Hexavalent

BRL

0.0100

Sample ID: LCS-R314622	Client ID:					Units: mg/L	Prep Date:		Run No: 314622		
SampleType: LCS	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R314622	Analysis Date: 04/07/2016		Seq No: 6769903		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.5010

0.0100

0.5000

100

90

110

Sample ID: 1604463-001BMS	Client ID: 16097-MW-24	Units: mg/L			Prep Date:			Run No: 314622			
SampleType: MS	TestCode: Hexavalent Chromium in Water	SW7196A			BatchID: R314622			Analysis Date: 04/07/2016			Seq No: 6769910
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.7334

0.0100

0.5000

0.2093

105

85

115

Sample ID: 1604463-001BMSD	Client ID: 16097-MW-24	Units: mg/L			Prep Date:			Run No: 314622			
SampleType: MSD	TestCode: Hexavalent Chromium in Water SW7196A	BatchID: R314622			Analysis Date: 04/07/2016			Seq No: 6769911			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.6969

0.0100

0.5000

0.2093

97.5

85

115

0.7334

5.10

20

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

1. PROJECT INFORMATION

Today's Date: _____

Project Number: _____ Project Name/Client: _____
Project Manager: _____ Sampled By: _____
Laboratory: _____ Order No.: _____

2. SAMPLE INFORMATION

Purpose of sampling: _____

Total number of samples: _____

☐ Groundwater: _____ ☐ Soil: _____ ☐ Soil Gas: _____ ☐ Trip Blank: _____
☐ Surface water: _____ ☐ Sediment: _____ ☐ Other: _____ ☐ Field Blank: _____
☐ Drinking water: _____ ☐ Air: _____ ☐ Other: _____ ☐ Equip Blank: _____

Analyses requested: _____

Method detection limits (MDLs) or reporting limits (RLs) requested: _____

Duplicates: _____

3. DATA VERIFICATION

Check yes or no. Refer to applicable Data Verification Guidelines to determine appropriate action.

Yes No NA Was the Chain of Custody intact?

If no: Notes: _____

Yes No NA Were custody seals intact on samples bottles and/or coolers as necessary?

If no: Notes: _____

Yes No NA Were cooler temperatures within the acceptable range of 0-6°C?

If no: Notes: _____

Yes No NA Were samples physically and chemically preserved properly (i.e. no bubbles in VOC vials)

If no: Notes: _____

Yes No NA Was the case narrative of the analytical report free of any quality issues, discrepancies, etc.?

If no: Notes: _____

Yes No NA Were all samples labeled, analyzed, and reported correctly? (no samples held, no wrong analyses, etc.)

If no: If within holding time, call lab immediately. Notes: _____

Yes No NA Were all samples analyzed within holding time?

If no: Notes: _____

Yes No NA Were appropriate analytes reported?

If no: Notes: _____

Yes No NA Were soil and/or sediment concentrations reported appropriately? (DW vs WW)

If no: Call lab immediately to verify. Notes: _____

Yes No NA If analyzed for the following parameters, was the following true for all analytes?

Yes No NA Total metals ≥ Dissolved metals

Yes No NA TKN > Organic nitrogen

Yes No NA TKN > Ammonia (NH₃)

Yes No NA COD > TOC

Yes No NA COD > BOD

If no: Report to project manager and contact lab's QA/QC manager if needed. Notes: _____

Yes No NA Were method detection limits (MDL), reporting limits (RLs), and/or dilution factors appropriate?

If no: Report to project manager and contact lab if needed. Notes: _____

Yes No NA Were surrogate % recoveries within the acceptable range of LCL ≤ x ≤ UCL?

If no: Notes: _____

Yes No NA Were target analytes detected in any field, equipment, and/or laboratory blanks?

If yes: Notes: _____

Yes	No	NA	Were any target analytes detected below practical quantitation limits (PQLs)?
If yes: Notes: _____			
Yes	No	NA	Were any sample duplicates collected?
If yes: Notes: _____			
Yes	No	NA	Were any laboratory duplicates reported for project samples?
If yes: Notes: _____			
Yes	No	NA	Were any matrix spikes reported for project samples?
If yes: Notes: _____			
Yes	No	NA	Were any laboratory control samples reported?
If yes: Notes: _____			
Yes	No	NA	Were calibration standards reported?
If yes: Notes: _____			

4. COMMENTS & SUMMARY OF ACTIONS TAKEN (Attach additional pages if necessary)



ANALYTICAL ENVIRONMENTAL SERVICES, INC.

April 15, 2016

Sarah Jones
BROWN AND CALDWELL
990 Hammond Drive
Atlanta GA 30328

TEL: (770) 394-2997
FAX: (770) 396-9495

RE: MacGregor

Dear Sarah Jones:

Order No: 1604582

Analytical Environmental Services, Inc. received 6 samples on 4/7/2016 4:05:00 PM for the analyses presented in following report.

No problems were encountered during the analyses. Additionally, all results for the associated Quality Control samples were within EPA and/or AES established limits. Any discrepancies associated with the analyses contained herein will be noted and submitted in the form of a project Case Narrative.

AES's accreditations are as follows:

- NELAC/Florida State Laboratory ID E87582 for analysis of Non-Potable Water, Solid & Chemical Materials, and Drinking Water Microbiology, effective 07/01/15-06/30/16.
- NELAC/Louisiana Agency Interest No. 100818 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 07/01/15-06/30/16.
- NELAC/Texas Certificate No. T104704509-16-6 for or analysis of Non-Potable Water and Solid & Chemical Materials, effective 03/01/16-02/28/17.
- AIHA-LAP, LLC Laboratory ID: 100671 for Industrial Hygiene samples (Organics, Inorganics), Environmental Lead (Paint, Soil, Dust Wipes, Air), and Environmental Microbiology (Fungal) Direct Examination, effective until 09/01/17.

Ioana Pacurar
Project Manager



ANALYTICAL ENVIRONMENTAL SERVICES, INC

3080 Presidential Drive, Atlanta GA 30340-3704

AES

TEL.: (770) 457-8177 / TOLL-FREE (800) 972-4889 / FAX: (770) 457-8188

CHAIN OF CUSTODY

Work Order:

1604582

Date: 4.7.16

Page 1 of 1

COMPANY: BROWN + CALDWELL		ADDRESS: 990 HAMMOND DRIVE ATLANTA, GA 30328		ANALYSIS REQUESTED										Visit our website www.aesatlanta.com to check on the status of your results, place bottle orders, etc.		No # of Containers	
PHONE:		FAX:		VOCs 8260B TOTAL CHROM TOTAL HEX CHROM DISSOLVED CHROM DISSOLVED HEX CHROM													
SAMPLED BY: GEOFF GAGAN		SIGNATURE: 		PRESERVATION (See codes)										REMARKS			
#	SAMPLE ID	SAMPLED		Grab	Composite	Matrix (See codes)											
		DATE	TIME				H+I	Z	NA	NA	NA						
1	16096-MW-4	4.5.16	1840	X		GW	X										2
2	16096-EB-1	4.5.16	1905	X		W	X										2
3	TRIP BLANK	-	-			W	X										2
4	16098-MW-19	4.7.16	1020	X		GW		X	X	X	X						4
5	16098-DUP	4.7.16	9999	X		GW		X	X								2
6	16098-EB-2	4.7.16	1105	X		W		X	X								2
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

RELINQUISHED BY		DATE/TIME	RECEIVED BY		DATE/TIME	PROJECT INFORMATION		RECEIPT	
1:		4.7.16/1605	1:		4-07-16 16:03	PROJECT NAME: MACGREGOR		Total # of Containers 14	
2:			2:			PROJECT #:		Turnaround Time Request ☒ Standard 5 Business Days ☐ 2 Business Day Rush ☐ Next Business Day Rush ☐ Same Day Rush (auth req.) ☐ Other	
3:			3:			SITE ADDRESS: ALBANY, GA			
						SEND REPORT TO: SEJONES@BROWN.CALD.COM			
SPECIAL INSTRUCTIONS/COMMENTS: * CHROMIUM BY EPA 6010 B * HEX/TRIVALENT CHROM BY EPA SW 7190 * 24 HOUR HOLD TIMES ON CHROM*				SHIPMENT METHOD OUT / / VIA: IN / / VIA: CLIENT FedEx UPS MAIL COURIER GREYHOUND OTHER		INVOICE TO: (IF DIFFERENT FROM ABOVE)		STATE PROGRAM (if any):	
						QUOTE #:		E-mail? ☐ N; Fax? ☒ Y	
						PO#:		DATA PACKAGE: I ☒ III IV	

SAMPLES RECEIVED AFTER 3PM OR ON SATURDAY ARE CONSIDERED RECEIVED THE NEXT BUSINESS DAY. IF TURNAROUND TIME IS NOT INDICATED, AES WILL PROCEED WITH STANDARD TAT OF SAMPLES.
SAMPLES ARE DISPOSED 30 DAYS AFTER REPORT COMPLETION UNLESS OTHER ARRANGEMENTS ARE MADE.

MATRIX CODES: A = Air GW = Groundwater SE = Sediment SO = Soil SW = Surface Water W = Water (Blanks) DW = Drinking Water (Blanks) O = Other (specify) WW = Waste Water

PRESERVATIVE CODES: H+I = Hydrochloric acid + ice I = Ice only N = Nitric acid S+I = Sulfuric acid + ice S/M+I = Sodium Bisulfate/Methanol + ice O = Other (specify) NA = None

Page 2 of 21

White Copy - Original; Yellow Copy - Client

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604582-001

Client Sample ID: 16096-MW-4
 Collection Date: 4/5/2016 6:40:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,1-Dichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,1-Dichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,2-Dibromoethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,2-Dichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,2-Dichloropropane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
2-Butanone	BRL	50		ug/L	222339	1	04/08/2016 13:26	CH
2-Hexanone	BRL	10		ug/L	222339	1	04/08/2016 13:26	CH
4-Methyl-2-pentanone	BRL	10		ug/L	222339	1	04/08/2016 13:26	CH
Acetone	BRL	50		ug/L	222339	1	04/08/2016 13:26	CH
Benzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Bromodichloromethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Bromoform	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Bromomethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Carbon disulfide	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Carbon tetrachloride	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Chlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Chloroethane	BRL	10		ug/L	222339	1	04/08/2016 13:26	CH
Chloroform	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Chloromethane	BRL	10		ug/L	222339	1	04/08/2016 13:26	CH
cis-1,2-Dichloroethene	480	50		ug/L	222339	10	04/11/2016 17:00	MD
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Cyclohexane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Dibromochloromethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Dichlorodifluoromethane	BRL	10		ug/L	222339	1	04/08/2016 13:26	CH
Ethylbenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Freon-113	BRL	10		ug/L	222339	1	04/08/2016 13:26	CH
Isopropylbenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
m,p-Xylene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Methyl acetate	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Methylcyclohexane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Methylene chloride	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
o-Xylene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604582-001

Client Sample ID: 16096-MW-4
 Collection Date: 4/5/2016 6:40:00 PM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Tetrachloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Toluene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Trichloroethene	110	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Trichlorofluoromethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:26	CH
Vinyl chloride	21	2.0		ug/L	222339	1	04/08/2016 13:26	CH
Surr: 4-Bromofluorobenzene	75.8	70.7-125		%REC	222339	10	04/11/2016 17:00	MD
Surr: 4-Bromofluorobenzene	86.7	70.7-125		%REC	222339	1	04/08/2016 13:26	CH
Surr: Dibromofluoromethane	105	82.2-120		%REC	222339	1	04/08/2016 13:26	CH
Surr: Dibromofluoromethane	119	82.2-120		%REC	222339	10	04/11/2016 17:00	MD
Surr: Toluene-d8	97.2	81.8-120		%REC	222339	1	04/08/2016 13:26	CH
Surr: Toluene-d8	93.3	81.8-120		%REC	222339	10	04/11/2016 17:00	MD

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604582-002

Client Sample ID: 16096-EB-1
 Collection Date: 4/5/2016 7:05:00 PM
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,1-Dichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,1-Dichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,2-Dibromoethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,2-Dichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,2-Dichloropropane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
2-Butanone	BRL	50		ug/L	222339	1	04/08/2016 13:52	CH
2-Hexanone	BRL	10		ug/L	222339	1	04/08/2016 13:52	CH
4-Methyl-2-pentanone	BRL	10		ug/L	222339	1	04/08/2016 13:52	CH
Acetone	BRL	50		ug/L	222339	1	04/08/2016 13:52	CH
Benzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Bromodichloromethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Bromoform	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Bromomethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Carbon disulfide	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Carbon tetrachloride	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Chlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Chloroethane	BRL	10		ug/L	222339	1	04/08/2016 13:52	CH
Chloroform	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Chloromethane	BRL	10		ug/L	222339	1	04/08/2016 13:52	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Cyclohexane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Dibromochloromethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Dichlorodifluoromethane	BRL	10		ug/L	222339	1	04/08/2016 13:52	CH
Ethylbenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Freon-113	BRL	10		ug/L	222339	1	04/08/2016 13:52	CH
Isopropylbenzene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
m,p-Xylene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Methyl acetate	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Methylcyclohexane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Methylene chloride	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
o-Xylene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604582-002

Client Sample ID: 16096-EB-1
 Collection Date: 4/5/2016 7:05:00 PM
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Tetrachloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Toluene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Trichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Trichlorofluoromethane	BRL	5.0		ug/L	222339	1	04/08/2016 13:52	CH
Vinyl chloride	BRL	2.0		ug/L	222339	1	04/08/2016 13:52	CH
Surr: 4-Bromofluorobenzene	79.8	70.7-125		%REC	222339	1	04/08/2016 13:52	CH
Surr: Dibromofluoromethane	94.7	82.2-120		%REC	222339	1	04/08/2016 13:52	CH
Surr: Toluene-d8	87.1	81.8-120		%REC	222339	1	04/08/2016 13:52	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604582-003

Client Sample ID: TRIP BLANK
 Collection Date: 4/7/2016
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
1,1,1-Trichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,1,2,2-Tetrachloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,1,2-Trichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,1-Dichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,1-Dichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,2,4-Trichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,2-Dibromo-3-chloropropane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,2-Dibromoethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,2-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,2-Dichloroethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,2-Dichloropropane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,3-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
1,4-Dichlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
2-Butanone	BRL	50		ug/L	222339	1	04/08/2016 11:44	CH
2-Hexanone	BRL	10		ug/L	222339	1	04/08/2016 11:44	CH
4-Methyl-2-pentanone	BRL	10		ug/L	222339	1	04/08/2016 11:44	CH
Acetone	BRL	50		ug/L	222339	1	04/08/2016 11:44	CH
Benzene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Bromodichloromethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Bromoform	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Bromomethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Carbon disulfide	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Carbon tetrachloride	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Chlorobenzene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Chloroethane	BRL	10		ug/L	222339	1	04/08/2016 11:44	CH
Chloroform	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Chloromethane	BRL	10		ug/L	222339	1	04/08/2016 11:44	CH
cis-1,2-Dichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
cis-1,3-Dichloropropene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Cyclohexane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Dibromochloromethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Dichlorodifluoromethane	BRL	10		ug/L	222339	1	04/08/2016 11:44	CH
Ethylbenzene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Freon-113	BRL	10		ug/L	222339	1	04/08/2016 11:44	CH
Isopropylbenzene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
m,p-Xylene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Methyl acetate	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Methyl tert-butyl ether	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Methylcyclohexane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Methylene chloride	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
o-Xylene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604582-003

Client Sample ID: TRIP BLANK
 Collection Date: 4/7/2016
 Matrix: Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
TCL VOLATILE ORGANICS SW8260B				(SW5030B)				
Styrene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Tetrachloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Toluene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
trans-1,2-Dichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
trans-1,3-Dichloropropene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Trichloroethene	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Trichlorofluoromethane	BRL	5.0		ug/L	222339	1	04/08/2016 11:44	CH
Vinyl chloride	BRL	2.0		ug/L	222339	1	04/08/2016 11:44	CH
Surr: 4-Bromofluorobenzene	72.2	70.7-125		%REC	222339	1	04/08/2016 11:44	CH
Surr: Dibromofluoromethane	105	82.2-120		%REC	222339	1	04/08/2016 11:44	CH
Surr: Toluene-d8	91.1	81.8-120		%REC	222339	1	04/08/2016 11:44	CH

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc

Date: 15-Apr-16

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Lab ID: 1604582-004

Client Sample ID: 16098-MW-19
 Collection Date: 4/7/2016 10:20:00 AM
 Matrix: Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
METALS, DISSOLVED SW6010D (SW3005A)								
Chromium	BRL	0.0100		mg/L	222431	1	04/11/2016 13:01	IO
Hexavalent Chromium, Dissolved SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314598	1	04/07/2016 17:00	JC
Chromium, Hexavalent	BRL	0.0100		mg/L	R314598	1	04/07/2016 17:00	JC
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314622	1	04/07/2016 17:00	JC
Chromium, Hexavalent	BRL	0.0100		mg/L	R314622	1	04/07/2016 17:00	JC
METALS, TOTAL SW6010D (SW3010A)								
Chromium	BRL	0.0100		mg/L	222546	1	04/14/2016 22:31	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 15-Apr-16

Client:	BROWN AND CALDWELL	Client Sample ID:	16098-DUP
Project Name:	MacGregor	Collection Date:	4/7/2016
Lab ID:	1604582-005	Matrix:	Groundwater

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314622	1	04/07/2016 17:00	JC
Chromium, Hexavalent	BRL	0.0100		mg/L	R314622	1	04/07/2016 17:00	JC
METALS, TOTAL SW6010D				(SW3010A)				
Chromium	BRL	0.0100		mg/L	222546	1	04/14/2016 22:34	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc
Date: 15-Apr-16

Client:	BROWN AND CALDWELL	Client Sample ID:	16098-EB-2
Project Name:	MacGregor	Collection Date:	4/7/2016 11:05:00 AM
Lab ID:	1604582-006	Matrix:	Aqueous

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed	Analyst
Hexavalent Chromium in Water SW7196A								
Chromium as Cr+3	BRL	0.0100		mg/L	R314622	1	04/07/2016 17:00	JC
Chromium, Hexavalent	BRL	0.0100		mg/L	R314622	1	04/07/2016 17:00	JC
METALS, TOTAL SW6010D (SW3010A)								
Chromium	BRL	0.0100		mg/L	222546	1	04/14/2016 22:37	JL

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Below reporting limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- > Greater than Result value

- E Estimated (value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See case narrative
- NC Not confirmed
- < Less than Result value
- J Estimated value detected below Reporting Limit

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Brown + Caldwell

Work Order Number 1604582

Checklist completed by [Signature] 4-7-16
Signature Date

Carrier name: FedEx ☐ UPS ☐ Courier ☐ Client ☒ US Mail ☐ Other ☐

Shipping container/cooler in good condition? Yes ☒ No ☐ Not Present ☐

Custody seals intact on shipping container/cooler? Yes ☐ No ☐ Not Present ☒

Custody seals intact on sample bottles? Yes ☒ No ☐ Not Present ☐

Container/Temp Blank temperature in compliance? ($0^{\circ} \leq 6^{\circ}C$) * Yes ☒ No ☐

Cooler #1 0.70C Cooler #2 ☐ Cooler #3 ☐ Cooler #4 ☐ Cooler #5 ☐ Cooler #6 ☐

Chain of custody present? Yes ☒ No ☐

Chain of custody signed when relinquished and received? Yes ☒ No ☐

Chain of custody agrees with sample labels? Yes ☒ No ☐

Samples in proper container/bottle? Yes ☒ No ☐

Sample containers intact? Yes ☒ No ☐

Sufficient sample volume for indicated test? Yes ☒ No ☐

All samples received within holding time? Yes ☒ No ☐

Was TAT marked on the COC? Yes ☒ No ☐

Proceed with Standard TAT as per project history? Yes ☐ No ☐ Not Applicable ☒

Water - VOA vials have zero headspace? No VOA vials submitted ☐ Yes ☒ No ☐

Water - pH acceptable upon receipt? Yes ☒ No ☐ Not Applicable ☐

Adjusted? ☐ Checked by [Signature]

Sample Condition: Good ☒ Other(Explain) ☐

(For diffusive samples or AIHA lead) Is a known blank included? Yes ☐ No ☒

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

Client: BROWN AND CALDWELL
Project Name: MacGregor
Lab Order: 1604582

Dates Report

Lab Sample ID	Client Sample ID	Collection Date	Matrix	Test Name	TCLP Date	Prep Date	Analysis Date
1604582-001A	16096-MW-4	4/5/2016 6:40:00PM	Groundwater	TCL VOLATILE ORGANICS		4/7/2016 3:35:00 PM	04/08/2016
1604582-001A	16096-MW-4	4/5/2016 6:40:00PM	Groundwater	TCL VOLATILE ORGANICS		4/7/2016 3:35:00 PM	04/11/2016
1604582-002A	16096-EB-1	4/5/2016 7:05:00PM	Aqueous	TCL VOLATILE ORGANICS		4/7/2016 3:35:00 PM	04/08/2016
1604582-003A	TRIP BLANK	4/7/2016 12:00:00AM	Aqueous	TCL VOLATILE ORGANICS		4/7/2016 3:35:00 PM	04/08/2016
1604582-004A	16098-MW-19	4/7/2016 10:20:00AM	Groundwater	TOTAL METALS BY ICP		4/13/2016 12:30:00 PM	04/14/2016
1604582-004B	16098-MW-19	4/7/2016 10:20:00AM	Groundwater	Hexavalent Chromium			04/07/2016
1604582-004C	16098-MW-19	4/7/2016 10:20:00AM	Groundwater	DISSOLVED METALS BY ICP		4/11/2016 11:42:00 AM	04/11/2016
1604582-004D	16098-MW-19	4/7/2016 10:20:00AM	Groundwater	Hexavalent Chromium, Dissolved			04/07/2016
1604582-005A	16098-DUP	4/7/2016 12:00:00AM	Groundwater	TOTAL METALS BY ICP		4/13/2016 12:30:00 PM	04/14/2016
1604582-005B	16098-DUP	4/7/2016 12:00:00AM	Groundwater	Hexavalent Chromium			04/07/2016
1604582-006A	16098-EB-2	4/7/2016 11:05:00AM	Aqueous	TOTAL METALS BY ICP		4/13/2016 12:30:00 PM	04/14/2016
1604582-006B	16098-EB-2	4/7/2016 11:05:00AM	Aqueous	Hexavalent Chromium			04/07/2016

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604582

ANALYTICAL QC SUMMARY REPORT

BatchID: 222339

Sample ID: MB-222339	Client ID:					Units: ug/L	Prep Date: 04/07/2016	Run No: 314212			
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 222339	Analysis Date: 04/07/2016	Seq No: 6760297			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1,1-Trichloroethane	BRL	5.0
1,1,2,2-Tetrachloroethane	BRL	5.0
1,1,2-Trichloroethane	BRL	5.0
1,1-Dichloroethane	BRL	5.0
1,1-Dichloroethene	BRL	5.0
1,2,4-Trichlorobenzene	BRL	5.0
1,2-Dibromo-3-chloropropane	BRL	5.0
1,2-Dibromoethane	BRL	5.0
1,2-Dichlorobenzene	BRL	5.0
1,2-Dichloroethane	BRL	5.0
1,2-Dichloropropane	BRL	5.0
1,3-Dichlorobenzene	BRL	5.0
1,4-Dichlorobenzene	BRL	5.0
2-Butanone	BRL	50
2-Hexanone	BRL	10
4-Methyl-2-pentanone	BRL	10
Acetone	BRL	50
Benzene	BRL	5.0
Bromodichloromethane	BRL	5.0
Bromoform	BRL	5.0
Bromomethane	BRL	5.0
Carbon disulfide	BRL	5.0
Carbon tetrachloride	BRL	5.0
Chlorobenzene	BRL	5.0
Chloroethane	BRL	10
Chloroform	BRL	5.0
Chloromethane	BRL	10

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604582

ANALYTICAL QC SUMMARY REPORT

BatchID: 222339

Sample ID: MB-222339	Client ID:			Units: ug/L			Prep Date: 04/07/2016		Run No: 314212		
SampleType: MBLK	TestCode: TCL VOLATILE ORGANICS SW8260B			BatchID: 222339			Analysis Date: 04/07/2016		Seq No: 6760297		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
cis-1,2-Dichloroethene	BRL	5.0									
cis-1,3-Dichloropropene	BRL	5.0									
Cyclohexane	BRL	5.0									
Dibromochloromethane	BRL	5.0									
Dichlorodifluoromethane	BRL	10									
Ethylbenzene	BRL	5.0									
Freon-113	BRL	10									
Isopropylbenzene	BRL	5.0									
m,p-Xylene	BRL	5.0									
Methyl acetate	BRL	5.0									
Methyl tert-butyl ether	BRL	5.0									
Methylcyclohexane	BRL	5.0									
Methylene chloride	BRL	5.0									
o-Xylene	BRL	5.0									
Styrene	BRL	5.0									
Tetrachloroethene	BRL	5.0									
Toluene	BRL	5.0									
trans-1,2-Dichloroethene	BRL	5.0									
trans-1,3-Dichloropropene	BRL	5.0									
Trichloroethene	BRL	5.0									
Trichlorofluoromethane	BRL	5.0									
Vinyl chloride	BRL	2.0									
Surr: 4-Bromofluorobenzene	36.39	0	50.00		72.8	70.7	125				
Surr: Dibromofluoromethane	59.03	0	50.00		118	82.2	120				
Surr: Toluene-d8	47.70	0	50.00		95.4	81.8	120				

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604582

ANALYTICAL QC SUMMARY REPORT

BatchID: 222339

Sample ID: LCS-222339	Client ID:					Units: ug/L	Prep Date: 04/07/2016	Run No: 314212			
SampleType: LCS	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 222339	Analysis Date: 04/07/2016	Seq No: 6760298			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	67.59	5.0	50.00		135	65.3	137				
Benzene	58.18	5.0	50.00		116	74.9	123				
Chlorobenzene	54.86	5.0	50.00		110	73.9	124				
Toluene	52.96	5.0	50.00		106	75	124				
Trichloroethene	58.84	5.0	50.00		118	73.1	128				
Surr: 4-Bromofluorobenzene	37.38	0	50.00		74.8	70.7	125				
Surr: Dibromofluoromethane	56.65	0	50.00		113	82.2	120				
Surr: Toluene-d8	48.36	0	50.00		96.7	81.8	120				

Sample ID: 1604227-002AMS	Client ID:				Units: ug/L	Prep Date: 04/07/2016	Run No: 314212				
SampleType: MS	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 222339	Analysis Date: 04/07/2016	Seq No: 6760551				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	57.90	5.0	50.00		116	60	150				
Benzene	144.0	5.0	50.00	88.26	112	70.1	132				
Chlorobenzene	51.05	5.0	50.00		102	70.9	131				
Toluene	46.86	5.0	50.00		93.7	70.1	133				
Trichloroethene	50.77	5.0	50.00		102	70	136				
Surr: 4-Bromofluorobenzene	38.15	0	50.00		76.3	70.7	125				
Surr: Dibromofluoromethane	49.54	0	50.00		99.1	82.2	120				
Surr: Toluene-d8	44.72	0	50.00		89.4	81.8	120				

Sample ID: 1604227-002AMSD	Client ID:					Units: ug/L	Prep Date: 04/07/2016	Run No: 314212			
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B					BatchID: 222339	Analysis Date: 04/07/2016	Seq No: 6760552			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

1,1-Dichloroethene	59.82	5.0	50.00		120	60	150	57.90	3.26	17.7	
Benzene	144.8	5.0	50.00	88.26	113	70.1	132	144.0	0.492	20	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
Project Name: MacGregor
Workorder: 1604582

ANALYTICAL QC SUMMARY REPORT

BatchID: 222339

Sample ID: 1604227-002AMSD	Client ID:				Units: ug/L	Prep Date: 04/07/2016	Run No: 314212				
SampleType: MSD	TestCode: TCL VOLATILE ORGANICS SW8260B				BatchID: 222339	Analysis Date: 04/07/2016	Seq No: 6760552				
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chlorobenzene	50.24	5.0	50.00		100	70.9	131	51.05	1.60	20	
Toluene	46.28	5.0	50.00		92.6	70.1	133	46.86	1.25	20	
Trichloroethene	50.93	5.0	50.00		102	70	136	50.77	0.315	20	
Surr: 4-Bromofluorobenzene	37.63	0	50.00		75.3	70.7	125	38.15	0	0	
Surr: Dibromofluoromethane	54.20	0	50.00		108	82.2	120	49.54	0	0	
Surr: Toluene-d8	45.62	0	50.00		91.2	81.8	120	44.72	0	0	

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604582

ANALYTICAL QC SUMMARY REPORT

BatchID: 222431

Sample ID: MB-222431	Client ID:					Units: mg/L	Prep Date: 04/11/2016	Run No: 314352			
SampleType: MBLK	TestCode: METALS, DISSOLVED	SW6010D				BatchID: 222431	Analysis Date: 04/11/2016	Seq No: 6763869			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100

Sample ID: LCS-222431	Client ID:					Units: mg/L	Prep Date: 04/11/2016	Run No: 314352			
SampleType: LCS	TestCode: METALS, DISSOLVED	SW6010D				BatchID: 222431	Analysis Date: 04/11/2016	Seq No: 6763871			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 0.9908 0.0100 1.000 99.1 80 120

Sample ID: 1604463-001DMS	Client ID:					Units: mg/L	Prep Date: 04/11/2016	Run No: 314352			
SampleType: MS	TestCode: METALS, DISSOLVED	SW6010D	BatchID: 222431				Analysis Date: 04/11/2016	Seq No: 6763877			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.191 0.0100 1.000 0.2230 96.8 75 125

Sample ID: 1604463-001DMSD	Client ID:					Units: mg/L	Prep Date: 04/11/2016	Run No: 314352			
SampleType: MSD	TestCode: METALS, DISSOLVED	SW6010D	BatchID: 222431				Analysis Date: 04/11/2016	Seq No: 6763879			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.209 0.0100 1.000 0.2230 98.6 75 125 1.191 1.49 20

Qualifiers: > Greater than Result value
 BRL Below reporting limit
 J Estimated value detected below Reporting Limit
 Rpt Lim Reporting Limit

< Less than Result value
 E Estimated (value above quantitation range)
 N Analyte not NELAC certified
 S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank
 H Holding times for preparation or analysis exceeded
 R RPD outside limits due to matrix

Client: BROWN AND CALDWELL
Project Name: MacGregor
Workorder: 1604582

ANALYTICAL QC SUMMARY REPORT

BatchID: 222546

Sample ID: MB-222546	Client ID:					Units: mg/L	Prep Date: 04/13/2016	Run No: 314733			
SampleType: MBLK	TestCode: METALS, TOTAL	SW6010D	BatchID: 222546				Analysis Date: 04/14/2016	Seq No: 6772568			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium BRL 0.0100

Sample ID: LCS-222546	Client ID:					Units: mg/L	Prep Date: 04/13/2016	Run No: 314733			
SampleType: LCS	TestCode: METALS, TOTAL	SW6010D	BatchID: 222546				Analysis Date: 04/14/2016	Seq No: 6772569			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.061 0.0100 1.000 106 80 120

Sample ID: 1604559-010CMS	Client ID:					Units: mg/L	Prep Date: 04/13/2016	Run No: 314733			
SampleType: MS	TestCode: METALS, TOTAL	SW6010D				BatchID: 222546	Analysis Date: 04/14/2016	Seq No: 6772571			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.037 0.0100 1.000 104 75 125

Sample ID: 1604559-010CMSD	Client ID:					Units: mg/L	Prep Date: 04/13/2016	Run No: 314733			
SampleType: MSD	TestCode: METALS, TOTAL	SW6010D	BatchID: 222546				Analysis Date: 04/14/2016	Seq No: 6772572			
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium 1.036 0.0100 1.000 104 75 125 1.037 0.082 20

Qualifiers:	>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604582

ANALYTICAL QC SUMMARY REPORT

BatchID: R314598

Sample ID: MB-R314598	Client ID:				Units: mg/L	Prep Date:			Run No: 314598		
SampleType: MBLK	TestCode: Hexavalent Chromium, Dissolved	SW7196A			BatchID: R314598	Analysis Date: 04/07/2016			Seq No: 6769376		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium as Cr+3

BRL

0.0100

Chromium, Hexavalent

BRL

0.0100

Sample ID: LCS-R314598	Client ID:				Units: mg/L	Prep Date:			Run No: 314598		
SampleType: LCS	TestCode: Hexavalent Chromium, Dissolved	SW7196A			BatchID: R314598	Analysis Date: 04/07/2016			Seq No: 6769377		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.4997

0.0100

0.5000

99.9

90

110

Sample ID: 1604463-001CMS	Client ID:				Units: mg/L	Prep Date:			Run No: 314598		
SampleType: MS	TestCode: Hexavalent Chromium, Dissolved	SW7196A			BatchID: R314598	Analysis Date: 04/07/2016			Seq No: 6769381		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.7351

0.0100

0.5000

0.2093

105

85

115

Sample ID: 1604463-001CMSD	Client ID:				Units: mg/L	Prep Date:			Run No: 314598		
SampleType: MSD	TestCode: Hexavalent Chromium, Dissolved	SW7196A			BatchID: R314598	Analysis Date: 04/07/2016			Seq No: 6769382		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.7378

0.0100

0.5000

0.2093

106

85

115

0.7351

0.367

20

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Client: BROWN AND CALDWELL
 Project Name: MacGregor
 Workorder: 1604582

ANALYTICAL QC SUMMARY REPORT

BatchID: R314622

Sample ID: MB-R314622	Client ID:					Units: mg/L	Prep Date:		Run No: 314622		
SampleType: MBLK	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R314622	Analysis Date: 04/07/2016		Seq No: 6769902		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium as Cr+3

BRL

0.0100

Chromium, Hexavalent

BRL

0.0100

Sample ID: LCS-R314622	Client ID:					Units: mg/L	Prep Date:			Run No: 314622	
SampleType: LCS	TestCode: Hexavalent Chromium in Water	SW7196A				BatchID: R314622	Analysis Date: 04/07/2016			Seq No: 6769903	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.5010

0.0100

0.5000

100

90

110

Sample ID: 1604463-001BMS	Client ID:				Units: mg/L	Prep Date:			Run No: 314622		
SampleType: MS	TestCode: Hexavalent Chromium in Water	SW7196A			BatchID: R314622	Analysis Date: 04/07/2016			Seq No: 6769910		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.7334

0.0100

0.5000

0.2093

105

85

115

Sample ID: 1604463-001BMSD	Client ID:				Units: mg/L	Prep Date:			Run No: 314622		
SampleType: MSD	TestCode: Hexavalent Chromium in Water	SW7196A			BatchID: R314622	Analysis Date: 04/07/2016			Seq No: 6769911		
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Chromium, Hexavalent

0.6969

0.0100

0.5000

0.2093

97.5

85

115

0.7334

5.10

20

Qualifiers:

> Greater than Result value

BRL Below reporting limit

J Estimated value detected below Reporting Limit

Rpt Lim Reporting Limit

< Less than Result value

E Estimated (value above quantitation range)

N Analyte not NELAC certified

S Spike Recovery outside limits due to matrix

B Analyte detected in the associated method blank

H Holding times for preparation or analysis exceeded

R RPD outside limits due to matrix

Appendix C: Laboratory Stipulation Letter

Stipulation of Approval for Commercial Laboratory

According to Georgia State Law (O.C.G.A. 12-2-9) Commercial Rules for Commercial Laboratory Accreditation, any person submitting data to EPD prepared by a commercial laboratory shall stipulate that the laboratory is approved (Chapter 391-3-26-.05). The following information is provided as requested.

Laboratory	Analytical Environmental Services, Inc. (AES) 3080 Presidential Drive Atlanta, GA 30340 (770) 457-8177
Accredited By:	State of Florida, Department of Health, Bureau of Laboratories; NELAP Recognized Accrediting Authority
Accreditation ID:	E87582
Scope:	Drinking Water - Microbiology, Primary Inorganic Contaminants, Secondary Inorganic Contaminants Non-Potable Water - Extractable Organics, General Chemistry, Metals, Microbiology, Pesticides-Herbicides-PCBs, Volatile Organics Solid and Chemical Materials - Extractable Organics, General Chemistry, Metals, Pesticides-Herbicides-PCBs, Volatile Organics Air and Emissions - Volatile Organics
Effective:	July 1, 2016
Expires:	June 30, 2017

Accredited By:	National Voluntary Laboratory Accreditation Program (NVLAP)
Accreditation ID:	102082-0
Scope:	Asbestos: PLM (Bulk) and TEM Air)
Effective:	October 1, 2015
Expires:	September 30, 2016