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DRC-2019-015081

Div of Waste Management
and Radiation Control

November 13, 2019

NOV 18 2019

SENT VIA EXPEDITED DELIVERY

Mr. Ty L. Howard
Director of Division of Waste Management and Radiation Control
Utah Department of Environmental Quality
195 North 1950 West
Salt Lake City, UT 84116

**Re: Transmittal of 3rd Quarter 2019 Groundwater Monitoring Report
Groundwater Quality Discharge Permit UGW370004 White Mesa Uranium Mill**

Dear Mr. Howard:

Enclosed are two copies of the White Mesa Uranium Mill Groundwater Monitoring Report for the 3rd Quarter of 2019 as required by the Groundwater Quality Discharge Permit UGW370004, as well as two CDs each containing a word searchable electronic copy of the report.

If you should have any questions regarding this report please contact me.

Yours very truly,

A handwritten signature in cursive script that reads 'Kathy Weinel'.

ENERGY FUELS RESOURCES (USA) INC.
Kathy Weinel
Quality Assurance Manager

cc: Paul Goranson
David Frydenlund
Scott Bakken
Logan Shumway
Terry Slade



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White Mesa Uranium Mill
Groundwater Monitoring Report

State of Utah
Groundwater Discharge Permit No. UGW370004

3rd Quarter
(July through September)
2019

Prepared by:



Energy Fuels Resources (USA) Inc.
225 Union Boulevard, Suite 600
Lakewood, CO 80228

November 13, 2019

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ACRONYM LIST

AWAL	American West Analytical Laboratory
COC	Chain-of-Custody
DWMRC	Utah Division of Waste Management and Radiation Control
EFRI	Energy Fuels Resources (USA) Inc.
GEL	GEL Laboratories, Inc.
GWCLs	Groundwater Compliance Limits
GWDP	Groundwater Discharge Permit
LCS	Laboratory Control Spike
MS	Matrix Spike
MSD	Matrix Spike Duplicate
QA	Quality Assurance
QAP	Quality Assurance Plan
QC	Quality Control
RPD	Relative Percent Difference
SOPs	Standard Operating Procedures
USEPA	United States Environmental Protection Agency

1.0 INTRODUCTION

This is the Routine Groundwater Monitoring Report, as required under Part I.F.1 of State of Utah Groundwater Discharge Permit No. UGW370004 (the “GWDP”) for the third quarter of 2019 for Energy Fuels Resources (USA) Inc’s. (“EFRI’s”) White Mesa Uranium Mill (the “Mill”). As required under Parts I.E.1, I.E.2, I.E.3, and I.E.5 of the GWDP, this Report includes recorded field measurements and laboratory analyses for well monitoring conducted during the quarter.

2.0 GROUNDWATER MONITORING

2.1 Samples and Measurements Taken During the Quarter

A map showing the location of groundwater monitoring wells, piezometers, existing wells, chloroform contaminant investigation wells and nitrate contaminant investigation wells is attached under Tab A. Groundwater samples and measurements were taken during this reporting period, as discussed in the remainder of this section.

2.1.1 Groundwater Compliance Monitoring

Groundwater samples and field measurements collected during the quarter included both quarterly and accelerated monitoring. Accelerated monitoring is discussed below in Section 2.1.2. In this report, samples classified as being collected quarterly include those wells which are routinely sampled every quarter as well as semi-annual wells which are sampled on an accelerated quarterly schedule due to exceedances reported in previous quarterly reports. Wells which are sampled routinely every quarter were analyzed for the parameters listed in Table 2 and Part I.E.1.d) 2)ii of the GWDP dated March 19, 2019. The semi-annual wells which have been accelerated to quarterly are analyzed only for those parameters which exceeded the Groundwater Compliance Limits (“GWCLs”) in Table 2 and Part I.E.1.d) 2)ii of the GWDP as described in previous reports.

Table 1 of this report provides an overview of wells sampled during the current period, along with the required sampling frequency applicable to each well during the current monitoring period, the date samples were collected from each well, and the date(s) analytical data were received from the contract laboratory(ies). Table 1 also indicates which sample numbers are associated with the required duplicates.

During this quarter, three wells were resampled. MW-27, MW-28 and MW-32 were resampled for chloride because the laboratory missed the holding time for chloride in the Q3 samples collected in July 2019. The holding times were missed due to instrument issues. The samples were recollected in August 2019.

2.1.2 Accelerated Groundwater Monitoring

Accelerated monthly sampling was also performed (quarterly wells accelerated to

monthly), and results reported, for the wells indicated in Table 1. The accelerated sampling frequency, analyte list and well list were determined based on the previous analytical results as shown in Table 2 based on the GWDP which was issued March 19, 2019.

As a result of the issuance of a revised GWDP on March 19, 2019, which sets revised GWCLs, requirements to perform accelerated monitoring under Part I.G.1 of the previous GWDP ceased effective on March 19, 2019, and the effect of the issuance of the revised GWDP was to create a “clean slate” for constituents in some wells going forward. The GWCLs for some constituents were not “reset” and continued on an accelerated sampling frequency as shown on Table 2.

Table 1 provides an overview of the wells sampled for the accelerated monthly program along with the routine sampling frequency as well as the accelerated sampling frequency, the date samples were collected from each well, the associated duplicates and the date(s) which analytical data were received from the contract laboratory(ies).

2.1.3 Background Well Monitoring

Pursuant to the GWDP Part I.H.2, wells MW-38, MW-39 and MW-40 were installed in the first quarter 2018. The GWDP Part I.H.3 requires the completion of a background report for each of these wells after the completion of 8 quarters of sampling. Quarterly sampling of MW-38, MW-39 and MW-40 is required to commence after Director’s approval of the As-Built for MW-38, MW-39 and MW-40. The As-Built approval letter was received October 10, 2018 and quarterly sampling commenced starting fourth quarter 2018.

2.1.4 Parameters Analyzed

Routine quarterly groundwater monitoring samples were analyzed for the parameters listed in Table 2 and Part I.E.1.d) 2) ii of the GWDP. The accelerated monitoring samples were analyzed for a more limited and specific parameter list as shown in Table 2.

2.1.5 Groundwater Head Monitoring

Depth to groundwater was measured in the following wells and/or piezometers, pursuant to Part I.E.3 of the GWDP:

- The groundwater monitoring wells (including general monitoring wells, quarterly and semi-annual monitoring wells, and (MW-34).
- Existing monitoring well MW-4 and the temporary chloroform investigation wells.
- Piezometers – P-1, P-2, P-3A, P-4 and P-5.

- Nitrate monitoring wells.
- The DR piezometers which were installed during the Southwest Hydrogeologic Investigation.
- In addition to the above, depth to water measurements are routinely observed in conjunction with sampling events for wells sampled during quarterly and accelerated efforts, regardless of the sampling purpose.

Water levels used for groundwater contour mapping were measured and recorded within 5 calendar days of each other as indicated by the measurement dates in the summary sheet under Tab D.

2.2 Field Data

Attached under Tab B are copies of field data sheets recorded in association with the quarterly effort for the groundwater compliance monitoring wells referred to in paragraph 2.1.1, above. Sampling dates are listed in Table 1.

Attached under Tab C are copies of field data sheets recorded in association with the accelerated monthly monitoring sampling efforts, referred to in paragraph 2.1.2, above. Sampling dates are listed in Table 1.

2.3 Laboratory Results - Quarterly Sampling

2.3.1 Copy of Laboratory Results

Analytical results are provided by two contract analytical laboratories: GEL and American West Analytical Laboratories (“AWAL”).

Table 1 lists the dates when analytical results were reported to the Quality Assurance (“QA”) Manager for each well.

Results from analysis of samples collected under the GWDP (i.e., regular quarterly and accelerated semi-annual samples) are provided in Tab E. Also included under Tab E are the results of analyses for duplicate samples as identified in Table 1.

2.3.2 Regulatory Framework and Groundwater Background

Under the GWDP, background groundwater quality has been determined on a well-by-well basis, as defined by the DWMRC-approved flowchart included in the *Revised Background Groundwater Quality Report: Existing Wells for Denison Mines (USA) Corp.’s White Mesa Uranium Mill Site, San Juan County, Utah*. GWCLs that reflect this background groundwater quality have been set for compliance monitoring wells except MW-38, MW-39, and MW-40. As discussed in Section 2.1.3 above, EFRI will submit

the background report for MW-38, MW-39, and MW-40 after the collection of 8 quarters of data.

Exceedances of the GWCLs during the preceding quarter determined the accelerated monthly monitoring program implemented during this quarter as noted in Tables 1 and 2 as modified under the renewed GWDP.

As a result of the issuance of a revised GWDP on March 19, 2019, which sets revised GWCLs, requirements to perform accelerated monitoring under Part I.G.1 of the previous GWDP ceased effective on March 19, 2019, and the effect of the issuance of the revised GWDP was to create a “clean slate” for constituents in some wells going forward. The GWCLs for some constituents were not ‘reset’ and continued on an accelerated sampling frequency as shown on Table 2.

Exceedances of the GWCLs for this quarter are listed in Table 2 for sampling required under the current GWDP. Accelerated requirements resulting from this quarter are highlighted for ease of reference. Table 3 documents the accelerated sampling program since the issuance of the GWDP permit renewal.

It should be noted, however, that, because the GWCLs have been set at the mean plus second standard deviation, or the equivalent, un-impacted groundwater would normally be expected to exceed the GWCLs approximately 2.5% of the time. Therefore, exceedances are expected in approximately 2.5% of sample results, and do not necessarily represent impacts to groundwater from Mill operations. In fact, more frequent sampling of a given analyte will increase the number of exceedances due to statistical variation and not due to Mill activity. Additionally, given the slow velocity of groundwater movement, accelerated sampling monthly may result in resampling of the same water and may lead to repeat exceedances for accelerated constituents not due to Mill activities, but due to repeat sampling of the same water.

2.4 Laboratory Results – Accelerated Monitoring

2.4.1 Copy of Laboratory Results

Results from analysis of samples collected for the monthly accelerated sampling (i.e. quarterly accelerated to monthly) are provided in Tab F. Also included under Tab F are the results of analyses for duplicate samples for this sampling effort, as identified in Table 1.

2.4.2 Regulatory Framework and Groundwater Background

As a result of the issuance of a revised GWDP on March 19, 2019, which sets revised GWCLs for some constituents, requirements to perform accelerated monitoring under Part I.G.1 of the previous GWDP for certain constituents ceased effective on March 19, 2019, and the effect of the issuance of the revised GWDP was to create a “clean slate” for certain constituents in a limited list of wells going forward.

This means that accelerated monitoring during this quarter was required under the revised GWDP for constituents which did not have revised GWCLs included in the current GWDP.

2.4.3 Compliance Status

Analytes that have exceeded the GWCLs for this quarter set forth in the GWDP are summarized in Table 2. The analytes which exceeded their respective GWCLs during the quarter will be sampled on an accelerated schedule as noted in Table 2. Table 3 summarizes the results of the accelerated sampling program since the March 19, 2019 GWDP.

Part I.G.4 c) of the GWDP states, with respect to exceedances of GWCLs, “The Permittee shall prepare and submit within 30 calendar days to the Executive Secretary a plan and a time schedule for assessment of the sources, extent and potential dispersion of the contamination, and an evaluation of potential remedial action to restore and maintain groundwater quality to insure that Permit limits will not be exceeded at the compliance monitoring point and that DMT or BAT will be reestablished.” EFRI submits an Exceedance Notice quarterly and the summary in the Exceedance Notice includes, for each exceedance, a brief discussion of whether such a plan and schedule is required at this time in light of other actions currently being undertaken by EFRI. The determination of whether a Plan and Time Schedule is required is based on discussions with DWMRC Staff in teleconferences on April 27 and May 2, 2011 and the constituents covered by previously submitted Source Assessment Reports.

2.4.3.1 MW-28

On May 28, 2014 EFRI notified DWMRC personnel of damage to Monitoring Well 28 (“MW-28”). The damage was noted by EFRI Environmental Staff during routine, quarterly sampling activities. Upon arrival at MW-28, EFRI Environmental Staff noticed that there was evidence that a vehicle had struck the outer protective metal casing of MW-28 and it was slightly bent and leaning to the west. Inspection of the inner, 10-inch PVC protective casing and the 4-inch well casing also showed signs of damage. The concrete seal between the 10-inch outer casing and the 4-inch casing was cracked and EFRI Environmental Staff noted that the 2 inner PVC casings were likely cracked and/or broken. Upon discovery of the damage on May 28, 2014, EFRI Environmental Staff contacted the EFRI QAM. The EFRI QAM notified DWMRC in person, while at the DWMRC offices in Salt Lake City. On June 2, and June 5, 2014 Environmental Staff and Bayles Exploration repaired the well and removed the debris in the bottom of the well resulting from the damage. The Environmental Staff then over pumped the well and removed over 4 casing volumes to redevelop the well. The well was sampled and the routine, second quarter 2014 sample was collected on June 18, 2014.

Three new analytes were reported above the GWCL in the second quarter 2014 data. The analytes are uranium, vanadium and cadmium as shown in Tables 2 and 3. Per the

GWDP, EFRI began accelerated monitoring in third quarter 2014 at MW-28 for those three constituents. The fourth quarter 2014 MW-28 results for vanadium and cadmium were below the GWCLs. The uranium result remained above the GWCL in the third quarter 2014. Part I.G.4 c) of the GWDP requires a Plan and Time Schedule for constituents exceeding their GWCL in two consecutive monitoring periods. A Plan and Time Schedule was submitted for uranium in MW-28 on December 4, 2014 as required. The Plan and Time Schedule specified that an assessment of the uranium results would be completed after the first quarter 2015 sampling event. If the uranium results continue to exceed the GWCL, EFRI will perform a video inspection of the interior of MW-28 to investigate the possibility of additional physical damage to the well structure that may be causing the elevated uranium results. The first quarter 2015 MW-28 results for uranium were below the GWCLs. The second quarter 2015 MW-28 uranium result was slightly above the GWCL and within the analytical variability of the method. Per discussions with DWMRC, EFRI was to continue to collect uranium data quarterly in MW-28 and assess the results and determine a path forward after the fourth quarter 2015. Both the third and fourth quarter 2015 and all of the 2016 results for uranium were below the GWCL. The first quarter 2017 MW-28 uranium result was slightly above the GWCL and within the analytical variability of the method. The second quarter 2017 result was below the GWCL, the third quarter 2017 result was slightly above the GWCL but within the analytical variation of the analytical method, and the fourth quarter result was below the GWCL. The first quarter 2018 uranium result was below the GWCL and the second, third, and fourth quarter 2018 and the first, second and third quarter 2019 results were slightly above the GWCL but within the analytical variation of the analytical method. Per discussions with DWMRC, EFRI will continue to collect uranium data quarterly in MW-28 and assess the results and determine a path forward after additional data are received.

As previously noted, cadmium results exceeded the GWCL in the second quarter 2014, immediately following the damage to the well, but the subsequent cadmium results were below the GWCL. The first quarter 2016 MW-28 cadmium result was slightly above the GWCL and within the analytical variability of the method. The second, third, and fourth quarter 2016 results were below the GWCL. The first quarter 2017 MW-28 cadmium result was slightly above the GWCL and within the analytical variability of the method. The second, third and fourth quarter 2017 and first and second, third, and fourth quarter 2018 and the first and second quarter 2019 MW-28 cadmium results were below the GWCL. Cadmium results have been below the GWCL for eight consecutive quarters and per the DWMRC letter dated May 22, 2019, cadmium will no longer be sampled on an accelerated schedule.

In the fourth quarter 2018 the gross alpha minus radon and uranium (“gross alpha”) result in MW-28 exceeded the GWCL. Gross alpha will be accelerated as required by the GWDP. Gross alpha results have been below the GWCL since the initial exceedance noted in the fourth quarter 2018.

In the second quarter 2019 the selenium result in MW-28 exceeded the GWCL. Selenium will be accelerated as required by the GWDP. The third quarter 2019 selenium result was below the GWCL.

EFRI will continue accelerated monitoring as required by the GWDP and discuss any additional findings in future reports.

2.5 Depth to Groundwater and Water Table Contour Map

As stated above, a listing of groundwater level readings for the quarter (shown as depth to groundwater in feet) is included under Tab D. The data from Tab D has been interpreted (kriged) and plotted in a water table contour map, provided under Tab H.

The water table contour map provides the location and identity of the wells and piezometers for which depth to groundwater is recorded. The groundwater elevation at each well and piezometer, measured in feet above mean sea level, and isocontour lines to delineate groundwater flow directions observed during the quarter's sampling event are displayed on the map.

3.0 QUALITY ASSURANCE AND DATA VALIDATION

The Mill QA Manager performed a QA/QC review to confirm compliance of the monitoring program with requirements of the Groundwater Monitoring Quality Assurance Plan ("QAP"). As required in the QAP, data QA includes preparation and analysis of QC samples in the field, review of field procedures, an analyte completeness review, and quality control review of laboratory data methods and data. Identification of field QC samples collected and analyzed is provided in Section 3.1. Discussion of adherence to Mill sampling Standard Operating Procedures ("SOPs") is provided in Section 3.2. Analytical completeness review results are provided in Section 3.3. The steps and tests applied to check laboratory data QA/QC are discussed in Sections 3.4.4 through 3.4.9 below.

The Analytical Laboratories have provided summary reports of the analytical QA/QC measurements necessary to maintain conformance with National Environmental Laboratory Accreditation Conference certification and reporting protocol. The analytical laboratory QA/QC Summary Reports, including copies of the Mill's COC and Analytical Request Record forms for each set of Analytical Results, follow the analytical results under Tabs E and F. Review of the laboratory QA/QC information is provided under Tab G.

3.1 Field QC Samples

The following field QC samples were generated by Mill personnel and submitted to the analytical laboratory in order to assess the quality of data resulting from the field sampling program:

One duplicate sample was collected during quarterly sampling as indicated in Table 1. The QC samples were sent blind to the analytical laboratory and analyzed for the same parameters as permit-required samples.

One duplicate sample was collected during each of the monthly sampling events as indicated in Table 1. The QC samples were sent blind to the analytical laboratory and analyzed for the same accelerated parameters as the parent sample.

One trip blank was provided by AWAL and returned and analyzed with the quarterly monitoring samples.

One trip blank for each of the monthly accelerated sample events was provided by AWAL and returned and analyzed with the accelerated monthly monitoring samples.

Rinsate samples were not collected during the quarter because equipment used during sample collection was dedicated and did not require decontamination. All wells except MW-20, MW-37 and MW-38 have dedicated pumps for purging and sampling and as such no rinsate blank samples are required. MW-20, MW-37 and MW-38 were purged and sampled with a disposable bailer and no rinsate blank was required. A deionized field blank was not required because equipment decontamination was not required and deionized water was not used during this sampling event.

3.2 Adherence to Mill Sampling SOPs

On a review of adherence by Mill personnel to the existing sampling SOPs, the QA Manager observed that QA/QC requirements established in the QAP were met and that the SOP's were implemented as required.

3.3 Analyte Completeness Review

Analyses required by the GWDP for the quarterly and semi-annual wells were performed. The accelerated sampling for the semi-annual wells (semi-annual to quarterly) was completed as required by the GWDP and as shown in Tables 2 and 3. The accelerated quarterly sampling (quarterly to monthly) required for this quarter, as shown in Tables 2 and 3, was performed as required.

The monthly accelerated sampling program shown on Tables 2 and 3 is required as a result of exceedances in quarterly well monitoring results reported in previous quarters.

3.4 Data Validation

The QAP and GWDP identify the data validation steps and data quality control checks required for the groundwater monitoring program. Consistent with these requirements, the QA Manager completed the following evaluations: a field data QA/QC evaluation, a receipt temperature check, a holding time check, an analytical method check, a reporting limit check, a trip blank check, a QA/QC evaluation of routine sample duplicates, a

QA/QC evaluation of accelerated sample duplicates, a gross alpha counting error evaluation and a review of each laboratory's reported QA/QC information. Each evaluation is discussed in the following sections. Data check tables indicating the results of each test are provided under Tab G.

3.4.1 Field Data QA/QC Evaluation

The QA Manager performs a review of field recorded parameters to assess their adherence with QAP requirements. The assessment involved review of two sources of information: the Field Data Sheets and the Quarterly Depth to Water summary sheet. Review of the Field Data Sheets addresses well purging volumes and the stability of the following field parameters (based upon the purging method chosen): specific conductance, pH, temperature, redox potential, dissolved oxygen ("DO") and turbidity. Stability of field parameters and well sampling techniques are dependent on the purging technique employed. Review of the Depth to Water data confirms that depth measurements were conducted within a five-day period. The results of this quarter's review are provided in Tab G.

There are three purging strategies specified in the QAP that are used to remove stagnant water from the casing during groundwater sampling at the Mill. The three strategies are as follows:

1. Purging three well casing volumes with a single measurement of field parameters
2. Purging two casing volumes with stable field parameters (within 10% [Relative Percent Difference] ("RPD"))
3. Purging a well to dryness and stability (within 10% RPD) of a limited list of field parameters after recovery

During both the quarterly sampling event and the two monthly events, the purging technique used was two casing volumes with stable field parameters (pH, Conductivity, Redox, temperature and turbidity) except for the following wells that were purged to dryness: MW-24 and MW-38.

MW-24 and MW-38 conformed to the QAP requirement for sampling low yield wells which includes the collection of three field parameters (pH, specific conductance ["conductivity"] and temperature) immediately prior to and immediately following sample collection. Stabilization of pH, conductivity and temperature were within the 10% RPD required by the QAP. MW-24 and MW-38 were purged to dryness after 2 casing volumes were removed and the low yield sampling procedures were used for the collection of field parameters. Stabilization of pH, conductivity and temperature were within the 10% RPD required by the QAP for well MW-24 and MW-38.

Additionally, two casing volumes were not purged from MW-26, prior to sampling because MW-26 is a continuously pumped well. If a well is continuously pumped, it is pumped on a set schedule per the remediation plan and is considered sufficiently evacuated to immediately collect a sample; however, if a pumping well has been out of

service for 48 hours or more, EFRI follows the purging requirements outlined in Attachment 2-3 of the QAP.

The review of the field sheets for compliance with QAP requirements resulted in the observations noted below. The QAP requirements in Attachment 2-3 specifically state that field parameters must be stabilized to within 10% over at least two consecutive measurements. The QAP Attachment 2-3 states that turbidity should be less than 5 NTU prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP Attachment 2-3 does not require that turbidity measurements be less than 5 NTU prior to sampling. As such, the noted observations regarding turbidity measurements greater than 5 NTU below are included for information purposes only.

- Turbidity measurements were less than 5 NTU for the quarterly and semi-annual wells except MW-32. Per the QAP, Attachment 2-3, turbidity measurements prior to sampling were within a 10% RPD for the quarterly and semi-annual wells.
- Turbidity measurements were less than 5 NTU for the accelerated sampling wells except MW-25, in the August monthly event. Turbidity measurements prior to sampling were within a 10% RPD for the accelerated sampling wells.

The other field parameters (conductance, pH, redox potential, DO, and temperature) for the wells were within the required RPD for the quarterly, semi-annual and accelerated sampling.

During review of the field data sheets, it was observed that sampling personnel consistently recorded depth to water for the quarterly, semi-annual and accelerated sampling programs to the nearest 0.01 foot.

EFRI's letter to DWMRC of March 26, 2010 discusses further why turbidity does not appear to be an appropriate parameter for assessing well stabilization. In response to DWMRC's subsequent correspondence dated June 1, 2010 and June 24, 2010, EFRI has completed a monitoring well redevelopment program. The redevelopment report was submitted to DWMRC on September 30, 2011. DWMRC responded to the redevelopment report via letter on November 15, 2012. Per the DWMRC letter dated November 15, 2012, the field data generated this quarter are compliant with the turbidity requirements of the approved QAP.

3.4.2 Holding Time Evaluation

QAP Table 1 identifies the method holding times for each suite of parameters. Sample holding time checks are provided under Tab G. The samples were received and analyzed within the required holding time.

All accelerated samples were received and analyzed within the required holding time.

3.4.3 Receipt Temperature Evaluation

COC sheets were reviewed to confirm compliance with the QAP requirement in Table 1 that samples be received at 6°C or lower. Sample receipt temperature checks are provided under Tab G. The quarterly, semi-annual and accelerated samples were received within the required temperature limit.

As noted in Tab G, samples for gross alpha analyses were shipped without using ice. Per Table 1 in the approved QAP, samples submitted for gross alpha analyses do not have a sample temperature requirement.

3.4.4 Analytical Method Checklist

The analytical methods reported by both laboratories were checked against the required methods specified in the QAP. Analytical method check results are provided in Tab G. The review indicated that the quarterly, semi-annual and accelerated samples were analyzed in accordance with Table 1 of the QAP.

3.4.5 Reporting Limit Evaluation

The analytical method RLs reported by both laboratories were checked against the RLs specified in the QAP Table 1. RL evaluations are provided in Tab G. The analytes were measured and reported to the required RLs except that several sets of quarterly, semi-annual and accelerated sample results had the RL raised for at least one analyte due to matrix interference and/or sample dilution as noted in Section 3.4.9. In all cases except as noted in Section 4.0 the reported value for the analyte was higher than the increased RL.

3.4.6 Trip Blank Evaluation

The trip blank results were reviewed to identify any VOC sample contamination which is the result of sample handling and shipment. Trip blank evaluations are provided in Tab G. The trip blank results associated with the quarterly, semi-annual and accelerated samples were all nondetect for VOCs.

3.4.7 QA/QC Evaluation for Routine Sample Duplicates

Section 9.1.4 a) of the QAP states that RPDs will be calculated for the comparison of duplicate and original field samples. The QAP acceptance limits for RPDs between the duplicate and original field sample is less than or equal to 20% unless the measured results are less than 5 times the detection limit. This standard is based on the EPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, February 1994, 9240.1-05-01 as cited in the QAP. The RPDs are calculated for the duplicate pairs for all analytes regardless of whether or not the reported concentrations are greater than 5 times the required detection limits; however, data will be considered noncompliant only when the results are greater than 5 times the required detection limit

and the RPD is greater than 20%. The additional duplicate information is provided for information purposes.

The duplicate results were within a 20% RPD in the quarterly samples. Results of the RPD test are provided under Tab G.

The duplicate results were within a 20% RPD in the accelerated samples. Results of the RPD test are provided under Tab G.

3.4.8 Radiologics Counting Error and Duplicate Evaluation

Section 9.14 of the QAP require that gross alpha analysis be reported with an activity equal to or greater than the GWCL and shall have a counting variance that is equal to or less than 20% of the reported activity concentration. An error term may be greater than 20% of the reported activity concentration when the sum of the activity concentration and error term is less than or equal to the GWCL. The quarterly and semi-annual radiologic sample results met the counting error requirements specified in the QAP

Section 9.4 of the QAP also requires a comparability check between the sample and field duplicate sample results utilizing the formula provided in the text.

Results of quarterly, semi-annual, and accelerated radiologic sample QC are provided under Tab G. The quarterly, semi-annual, and accelerated radiologic sample results met the duplicate counting error requirements specified in the QAP.

3.4.9 Other Laboratory QA/QC

Section 9.2 of the QAP requires that the laboratory's QA/QC Manager check the following items in developing data reports: (1) sample preparation information is correct and complete, (2) analysis information is correct and complete, (3) appropriate analytical laboratory procedures are followed, (4) analytical results are correct and complete, (5) QC samples are within established control limits, (6) blanks are within QC limits, (7) special sample preparation and analytical requirements have been met, and (8) documentation is complete. In addition to other laboratory checks described above, EFRI's QA Manager rechecks QC samples and blanks (items (5) and (6)) to confirm that the percent recovery for spikes and the relative percent difference for spike duplicates are within the method-specific required limits, or that the case narrative sufficiently explains any deviation from these limits. Results of this quantitative check are provided under Tab G. The lab QA/QC results from both GEL and AWAL samples for compounds regulated under the GWDP met these requirements.

The check samples included at least the following: a method blank, a laboratory control spike ("LCS"), a matrix spike ("MS") and a matrix spike duplicate ("MSD"), or the equivalent, where applicable. It should be noted that:

- Laboratory fortified blanks are equivalent to LCSs.

- Laboratory reagent blanks are equivalent to method blanks.
- Post digestion spikes are equivalent to MSs.
- Post digestion spike duplicates are equivalent to MSDs.
- Laboratory Duplicates are equivalent to MSDs.

The qualifiers, and the corresponding explanations reported in the QA/QC Summary Reports for the check samples for the analytical methods were reviewed by the QA Manager.

The QAP, Section 8.1.2 requires that a MS/MSD pair be analyzed with each analytical batch. The QAP does not specify acceptance limits for the MS/MSD pair, and the QAP does not specify that the MS/MSD pair be prepared on EFRI samples only. Acceptance limits for MS/MSDs are set by the laboratories. The review of the information provided by the laboratories in the data packages verified that the requirements in the QAP to analyze a MS/MSD pair with each analytical batch was met. While the QAP does not require it, the recoveries were reviewed for compliance with the laboratory established acceptance limits. The QAP does not require this level of review and the results of this review are provided for information only.

The information from the Laboratory QA/QC Summary Reports indicates that the MS/MSDs recoveries and the associated RPDs for the quarterly and semi-annual samples were within acceptable laboratory limits for the regulated compounds except as indicated in Tab G. The data recoveries and RPDs which are outside the laboratory established acceptance limits do not affect the quality or usability of the data because the recoveries and RPDs above or below the acceptance limits are indicative of matrix interference most likely caused by other constituents in the samples. Matrix interferences are applicable to the individual sample results only. The requirement in the QAP to analyze a MS/MSD pair with each analytical batch was met and as such the data are compliant with the QAP.

The information from the Laboratory QA/QC Summary Reports indicates that the MS/MSDs recoveries and the associated RPDs for the accelerated samples were within acceptable laboratory limits for the regulated compounds. The requirement in the QAP to analyze a MS/MSD pair with each analytical batch was met and as such the data are compliant with the QAP.

The QAP specifies that surrogate compounds shall be employed for all organic analyses but the QAP does not specify acceptance limits for surrogate recoveries. The information from the Laboratory QA/QC Summary Reports indicates that the surrogate recoveries for the quarterly and accelerated samples were within acceptable laboratory limits for the surrogate compounds.

The information from the Laboratory QA/QC Summary Reports indicates that the LCS recoveries for both the quarterly and accelerated samples were within acceptable laboratory limits for the LCS compounds as noted in Tab G.

The QAP, Section 8.1.2 requires that each analytical batch shall be accompanied by a method blank. The analytical batches routinely contain a blank, which is a blank sample made and carried through all analytical steps. For the Mill samples, a method blank was prepared for the analytical methods. Per the approved QAP, contamination detected in analysis of method blanks will be used to evaluate any analytical laboratory contamination of environmental samples. The QAP states that non-conformance conditions will exist when contaminant levels in the samples(s) are not an order of magnitude greater than the blank result. The method blanks for the quarterly samples and the accelerated samples reported no detections of any analyte. Method blank results are included in Tab E and Tab F.

Laboratory duplicates are completed by the analytical laboratories as required by the analytical method specifications. Acceptance limits for laboratory duplicates are set by the laboratories. The QAP does not require the completion of laboratory duplicates or the completion of a QA assessment of them. EFRI reviews the QC data provided by the laboratories for completeness and to assess the overall quality of the data provided. Duplicate results outside of the laboratory established acceptance limits are included in Tab G. The results outside of the laboratory established acceptance limits do not affect the quality or usability of the data because the RPDs above the acceptance limits are indicative of non-homogeneity in the sample matrix. Matrix effects are applicable to the individual sample results only.

The information from the Laboratory QA/QC Summary Reports indicates that there was a high Continuing Calibration Verification (“CCV”) recovery for acetone, methylene chloride, and tetrahydrofuran (“THF”). The CCV recovery affected samples MW-11, MW-14, MW-25, MW-26, MW-30, MW-31, MW-36, MW-38, MW-39, MW-40, and MW-65 (duplicate of MW-11). The data were flagged in accordance with the changes specified in EPA Method 8260D. The flagging requirements are new to the revised method and do not adversely affect the data. The data are usable for the intended purpose because a high recovery in the CCV is indicative of a high bias to the sample results and any positive detections are considered over estimates of the actual concentrations. All of the sample results except methylene chloride in MW-26 were reported as nondetect and the data are considered accurate. The methylene chloride result in MW-26 is likely an overestimation of the true concentration.

4.0 CORRECTIVE ACTION REPORT

There are no corrective actions required during the current monitoring period.

4.1 Assessment of Corrective Actions from Previous Period

No corrective actions were identified in the previous report.

5.0 TIME CONCENTRATION PLOTS

Time concentration plots for each monitoring well for the following constituents: chloride, fluoride, sulfate, and uranium, are included under Tab I. The data points collected to date are reflected on the plots.

Time concentration plots included with quarterly groundwater reports prior to and including first quarter 2012 did not include data that were determined to be outliers using the statistical methods used for the background determinations at the Mill. Based on conversations with DWMRC, all of the data have been included in the quarterly time concentration plots since first quarter 2012.

6.0 ELECTRONIC DATA FILES AND FORMAT

EFRI has provided to the Director electronic copies of the laboratory results from groundwater quality monitoring conducted during the quarter in Comma Separated Values format, from the analytical laboratories. A copy of the transmittal e-mail is included under Tab J.

7.0 SIGNATURE AND CERTIFICATION

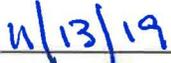
This document was prepared by Energy Fuels Resources (USA) Inc.

Energy Fuels Resources (USA) Inc.

By:



Scott A. Bakken
Senior Director Regulatory Affairs



Date

Certification:

I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.



Scott A. Bakken
Senior Director Regulatory Affairs
Energy Fuels Resources (USA) Inc.

Tables

Table 1: Summary of Well Sampling for Q3 2019

Well	Normal Frequency	Purpose for sampling this quarter	Sample Date	Date of Lab Report
MW-05	Semi-annually	Semi-annually	7/11/19	(8/15/2019) - (8/22/2019) - (10/22/2019)
MW-11	Quarterly	Quarterly	7/16/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-12	Semi-annually	Semi-annually	7/11/19	(8/15/2019) - (8/22/2019) - (10/22/2019)
MW-14	Quarterly	Quarterly	7/15/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-24	Semi-annually	Semi-annually	7/18/19	(8/15/2019) - (8/22/2019) - (10/22/2019)
MW-25	Quarterly	Quarterly	7/15/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-26	Quarterly	Quarterly	7/16/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-27	Semi-annually	Semi-annually	7/12/19	(8/15/2019) - (8/22/2019) - (10/22/2019)
MW-27 Resample	Semi-annually	Semi-annually	8/15/19	(9/03/2019)
MW-28	Semi-annually	Semi-annually	7/12/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-28 Resample	Semi-annually	Semi-annually	8/16/19	(9/03/2019)
MW-30	Quarterly	Quarterly	7/16/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-31	Quarterly	Quarterly	7/15/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-32	Semi-annually	Semi-annually	8/15/19	(9/03/2019)
MW-35	Semi-annually	Semi-annually	7/11/19	(8/15/2019) - (8/22/2019) - (10/22/2019)
MW-36	Quarterly	Quarterly	7/16/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-38	Quarterly	Background	7/18/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-39	Quarterly	Background	7/17/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-40	Quarterly	Background	7/16/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
MW-65	1 per Batch	Duplicate of MW-11	7/16/19	(8/15/2019) - (8/22/2019) - (10/22/2019) - [8/19/2019]
Accelerated August Monthly				
MW-11	Monthly	Accelerated	8/5/19	(8/20/2019) - (8/22/2019) - (9/6/2019)
MW-25	Monthly	Accelerated	8/6/19	(8/20/2019) - (8/22/2019) - (9/6/2019)
MW-26	Monthly	Accelerated	8/6/19	(8/20/2019) - (8/22/2019) - (9/6/2019)
MW-30	Monthly	Accelerated	8/6/19	(8/20/2019) - (8/22/2019) - (9/6/2019)
MW-31	Monthly	Accelerated	8/5/19	(8/20/2019) - (8/22/2019) - (9/6/2019)
MW-36	Monthly	Accelerated	8/6/19	NA - Field pH only
MW-65	Monthly	Duplicate of MW-30	8/6/19	(8/20/2019) - (8/22/2019) - (9/6/2019)
Accelerated September Monthly				
MW-11	Monthly	Accelerated	9/24/19	(10/17/2019)
MW-25	Monthly	Accelerated	9/23/19	(10/17/2019)
MW-26	Monthly	Accelerated	9/24/19	(10/17/2019)
MW-30	Monthly	Accelerated	9/24/19	(10/17/2019)
MW-31	Monthly	Accelerated	9/23/19	(10/17/2019)
MW-36	Monthly	Accelerated	9/23/19	NA - Field pH only
MW-65	1 per Batch	Duplicate of MW-11	9/24/19	(10/17/2019)

Notes:
 When more than 1 date is shown for a certain laboratory, the date(s) in italics are the resubmission dates. Resubmissions were required to correct reporting errors or to address reanalyses.
 Date in parenthesis depicts the date that data were reported from American West Analytical Laboratories (AWAL).
 Date in brackets depicts the date the data were reported from GEL Laboratories.

**Table 2
Exceedances and Acceleration Requirements**

Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in Current GWDP	First Result Exceeding the GWCL	Routine Sample Frequency	Accelerated Frequency	Exceedance Sample Period	Start of Accelerated Monitoring
Quarterly Wells Accelerated to Monthly Sampling							
MW-11 (Class II)	Manganese (ug/L)	164.67	174	Quarterly	Monthly	Q2 2018	Q3 2018 (September)
	Chloride (mg/L)	39.16	48.4	Quarterly	Monthly	Q3 2019	Q4 2019 (November)
	Sulfate (mg/L)	1309	1410	Quarterly	Monthly	Q3 2019	Q4 2019 (November)
MW-14 (Class III)	Sulfate (mg/L)	2330	2450	Quarterly	Monthly	Q3 2019	Q4 2019 (November)
	Fluoride (mg/L)	0.22	0.248	Quarterly	Monthly	Q3 2019	Q4 2019 (November)
MW-25 (Class III)	Cadmium (ug/L)	1.5	1.51	Quarterly	Monthly	Q1 2016	April 2016
MW-26 (Class III)	Nitrate + Nitrite (as N) (mg/L)	0.62	1.3	Quarterly	Monthly	Q1 2010	May 2010
	Chloroform (ug/L)	70	700	Quarterly	Monthly	Q1 2010	May 2010
	Chloride (mg/L)	58.31	72	Quarterly	Monthly	Q1 2010	May 2010
	Methylene Chloride (ug/L)	5	9.9	Quarterly	Monthly	Q2 2010	June 2010
	Nitrogen, Ammonia as N	0.92	0.938	Quarterly	Monthly	Q1 2019	May 2019
MW-30 (Class II)	Nitrate + Nitrite (as N) (mg/L)	2.5	16.1	Quarterly	Monthly	Q1 2010	May 2010
	Chloride (mg/L)	128	134	Quarterly	Monthly	Q1 2011	May 2011
	Field pH (S.U.)	6.47	6.33	Quarterly	Monthly	Q2 2018	July 2018
	Selenium (ug/L)	47.2	48.6	Quarterly	Monthly	Q1 2019	May 2019
	Uranium (ug/L)	8.32	8.57	Quarterly	Monthly	Q4 2013	March 2014
MW-31 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5	21.7	Quarterly	Monthly	Q1 2010	May 2010
	Total Dissolved Solids (mg/L)	2132	2580	Quarterly	Monthly	Q3 2019	Q4 2019 (November)
	Sulfate (mg/L)	993	1150	Quarterly	Monthly	Q3 2019	Q4 2019 (November)
	Chloride (mg/L)	143	145	Quarterly	Monthly	Q1 2011	May 2011
MW-36 (Class III)	Sulfate (mg/L)	3146.21	3170	Quarterly	Monthly	Q3 2019	Q4 2019 (November)
	Field pH (S.U.)	6.49	6.35	Quarterly	Monthly	Q1 2019	May 2019
Semi-Annual Wells Accelerated to Quarterly Sampling							
Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in Current GWDP	First Result Exceeding the GWCL	Sample Frequency	Accelerated Frequency	Exceedance Sample Period	Start of Accelerated Monitoring
MW-5 (Class II)	Uranium (ug/L)	7.5	11.6	Semi-Annually	Quarterly	Q4 2010	Q1 2011
MW-12 (Class III)	Uranium (ug/L)	23.5	23.7	Semi-Annually	Quarterly	Q2 2017	Q3 2017
MW-24 (Class III)	Cadmium (ug/L)	6.43	6.97	Semi-Annually	Quarterly	Q2 2018	Q3 2018 (September)
	Beryllium (ug/L)	2	2.42	Semi-Annually	Quarterly	Q4 2017	Q1 2018
	Thallium (ug/L)	2.01	2.44	Semi-Annually	Quarterly	Q2 2018	Q3 2018 (September)
	Nickel (ug/L)	50	57.7	Semi-Annually	Quarterly	Q4 2018	Q3 2019
	Fluoride (mg/L)	0.47	0.797	Semi-Annually	Quarterly	Q4 2018	Q3 2019
	Field pH (S.U.)	5.03	4.45	Semi-Annually	Quarterly	Q2 2018	Q3 2018 (September)
MW-27 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5.6	5.8	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Chloride (mg/L)	38	42	Semi-Annually	Quarterly	Q2 2010	Q3 2010
MW-28 (Class III)	Chloride (mg/L)	105	108	Semi-Annually	Quarterly	Q2 2010	Q3 2010
	Gross Alpha (pCi/L)	2.42	2.55	Semi-Annually	Quarterly	Q4 2018	Q3 2019
	Selenium (ug/L)	11.1	12.4	Semi-Annually	Quarterly	Q2 2019	Q3 2019
	Cadmium (ug/L)	5.2	5.41	Semi-Annually	Quarterly	Q2 2014	Q4 2014
	Uranium (ug/L)	4.9	61.3	Semi-Annually	Quarterly	Q2 2014	Q4 2014
MW-32 (Class III)	Chloride (mg/L)	35.99	36.3	Semi-Annually	Quarterly	Q2 2014 (Q1 2015)	Q2 2014
MW-35 (Class II)	Nitrogen Ammonia, as N	0.14	0.254	Semi-Annually	Quarterly	Q2 2018	Q3 2018 (September)

Notes:

() Values listed in parentheses are resample results from the same sampling period. Sampled were recollected due field or laboratory problems as noted in the specific report for that sample period.

Highlighted text shows accelerated requirements resulting from Q3 2019 sampling event.

Pursuant to the DWMRC letter of August 6 2019, these constituents will no longer be monitored on an accelerated schedule.

Table 3 – GWCL Exceedances for Third Quarter 2019 under the March 19, 2019 GWDP

Monitoring Well (Water Class)	Constituent Exceeding GWCL	GWCL in March 19, 2019 GWDP	Q2 2019 Results						Q3 2019 Results					
			Q2 2019 Sample Date	Q2 2019 Result	May 2019 Monthly Sample Date	May 2019 Monthly Result	June 2019 Monthly Sample Date	June 2019 Monthly Result	Q3 2019 Sample Date	Q3 2019 Result	August 2019 Monthly Sample Date	August 2019 Monthly Result	Sept. 2019 Monthly Sample Date	Sept. 2019 Monthly Result
Required Quarterly Sampling Wells														
MW-11 (Class II)	Chloride (mg/L)	39.16	4/24/2019	34	5/7/2019	NA	6/3/2019	NA	7/16/2019	48.4	8/5/2019	NA	9/24/2019	NA
	Sulfate (mg/L)	1309		1160		NA		NA		1410		NA		NA
	Manganese (ug/L)	164.67		181		210		210		199		202		174
MW-14 (Class III)	Fluoride (mg/L)	0.22	4/23/2019	<0.100	NS	NA	NS	NA	7/15/2019	0.248	NS	NA	NS	NA
	Sulfate (mg/L)	2330		1780		NA		NA		2450		NA		NA
MW-25 (Class III)	Cadmium (ug/L)	1.5	4/10/2019	1.30	5/8/2019	1.41	6/4/2019	1.47	7/15/2019	1.23	8/6/2019	1.37	9/23/2019	1.38
MW-26 (Class III)	Nitrate + Nitrite (as N) (mg/L)	0.62	4/24/2019	3.00	5/7/2019	0.986	6/4/2019	3.16	7/16/2019	2.06	8/6/2019	3.10	9/24/2019	1.59
	Chloroform (ug/L)	70		4140		1140		778		3110		1090		1540
	Chloride (mg/L)	58.31		82.0		73.0		72.6		75.2		83.5		62.1
	Methylene Chloride (ug/L)	5		4.16		1.69		<1.00		10.7		1.12		3.35
	Nitrogen, Ammonia as N	0.92		0.104		0.479		0.0919		0.357		0.164		0.496
MW-30 (Class II)	Nitrate + Nitrite (as N) (mg/L)	2.5	4/9/2019	18.5	5/7/2019	17.9	6/3/2019	15.8	7/16/2019	19.3	8/6/2019	15.8	9/24/2019	17.9
	Chloride (mg/L)	128		138		175		165		181		190		176
	Selenium (ug/L)	47.2		53.6		47.1		49.9		48.4		50.9		49.1
	Uranium (ug/L)	8.32		8.62		8.15		8.88		9.03		9.39		8.12
	Field pH (S.U.)	6.47 - 8.5		7.06		7.00		7.12		6.86		7.42		7.00
MW-31 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5	4/10/2019	19.7	5/7/2019	18.9	6/3/2019	19.7	7/15/2019	19.8	8/5/2019	17.0	9/23/2019	19.5
	Sulfate (mg/L)	993		917		NA		NA		1150		NA		NA
	TDS (mg/L)	2132		2080		NA		NA		2580		NA		NA
	Chloride (mg/L)	143		294		346		325		374		372		365
MW-36 (Class III)	Sulfate (mg/L)	3146.21	4/18/2019	2470	5/21/2019	NA	6/3/2019	NA	7/16/2019	3170	8/6/2019	NA	9/23/2019	NA
	Field pH (S.U.)	6.49 - 8.5		7.05		6.73		7.01		6.60		7.33		6.92
Required Semi-Annual Sampling Wells														
MW-05 (Class II)	Uranium (ug/L)	7.5	4/24/2019	0.959	NS	NA	NS	NA	7/11/2019	0.711	NS	NA	NS	NA
MW-12 (Class III)	Uranium (ug/L)	23.5	4/25/2019	23.2	NS	NA	NS	NA	7/11/2019	23.1	NS	NA	NS	NA
MW-24 (Class III)	Beryllium (ug/L)	2	5/2/2019	2.83	NS	NA	NS	NA	7/18/2019	2.94	NS	NA	NS	NA
	Cadmium (ug/L)	6.43		8.24		NA		NA		8.37		NA		NA
	Fluoride (mg/L)	0.47		0.839		NA		NA		0.996		NA		NA
	Nickel (mg/L)	50		63.9		NA		NA		70.6		NA		NA
	Thallium (ug/L)	2.01		2.73		NA		NA		2.61		NA		NA
	Field pH (S.U.)	5.03 - 8.5		4.53		NA		NA		5.03		NA		NA
MW-27 (Class III)	Nitrate + Nitrite (as N) (mg/L)	5.6	4/23/2019	6.33	NS	NA	NS	NA	7/12/2019	6.50	NS	NA	NS	NA
	Chloride (mg/L)	38		32.0		NA		NA	30.8	NA		NA		
MW-28 (Class III)	Chloride (mg/L)	105	4/24/2019	165	NS	NA	NS	NA	7/12/2019	133	NS	NA	NS	NA
	Selenium (ug/L)	11.1		12.4		NA		NA		10.6		NA		NA
	Gross Alpha (pCi/L)	2.42		1.94		NA		NA	1.20	NA		NA		
	Uranium (ug/L)	4.9		9.60		NA		NA	7.83	NA		NA		
MW-32 (Class III)	Chloride (mg/L)	35.39	4/9/2019	34.5	NS	NA	NS	NA	8/15/2019	35.7	NS	NA	NS	NA
MW-35 (Class II)	Nitrogen, Ammonia as N	0.14	4/18/2019	0.0634	NS	NA	NS	NA	7/11/2019	0.0935	NS	NA	NS	NA

Notes:

NS= Not Required and Not Sampled

NA= Not Applicable

Exceedances are shown in yellow

Pursuant to the DWMRC letter of August 6, 2019, these constituents will no longer be monitored on an accelerated schedule. These constituents will be dropped from this report after this quarter.

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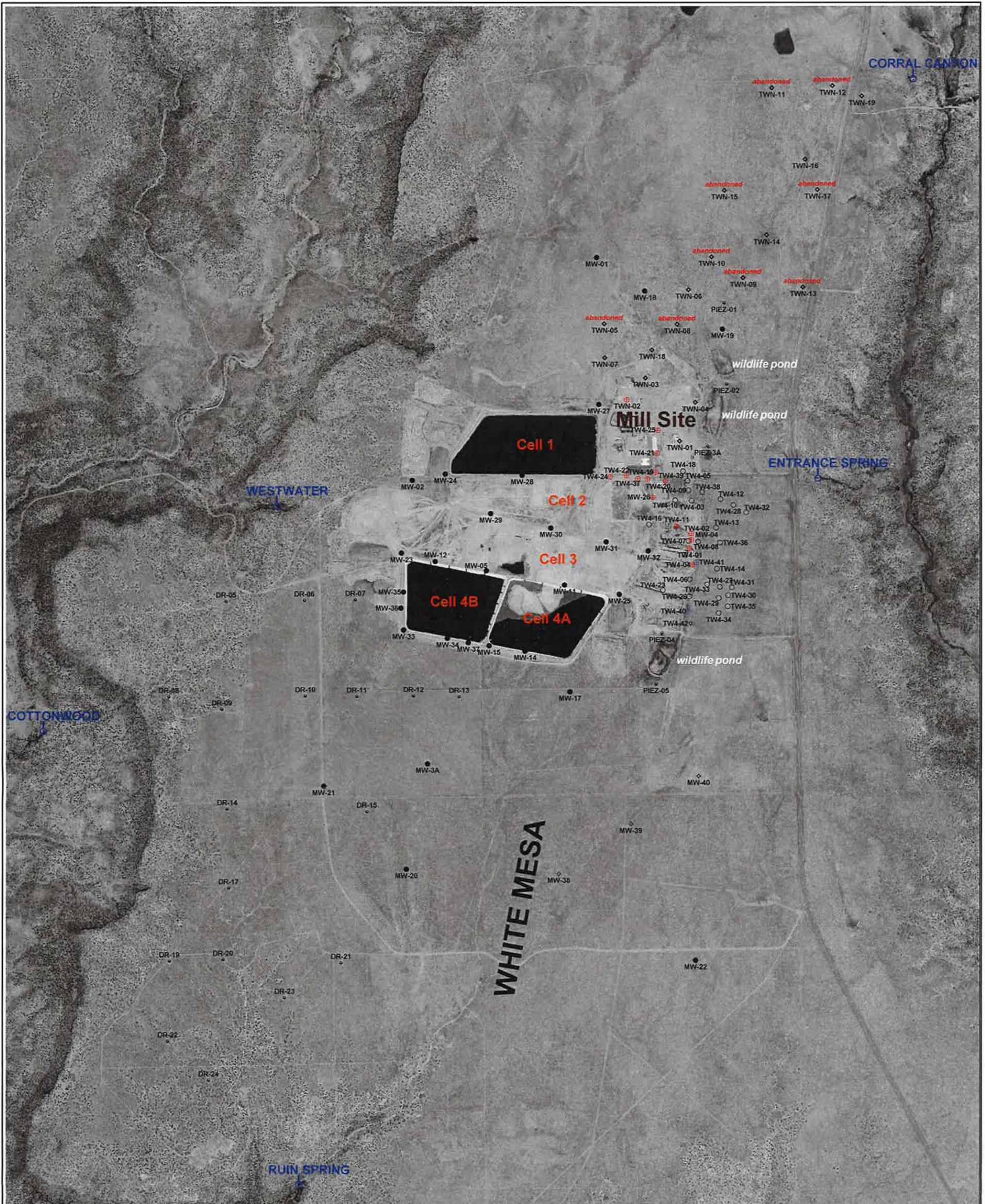
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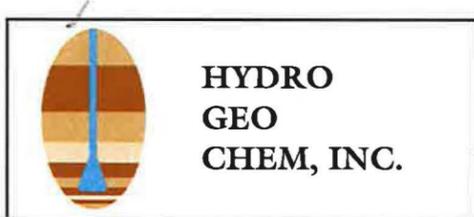
Tab A

Site Plan and Perched Well Locations White Mesa Site



EXPLANATION

- TW4-42 temporary perched monitoring well installed April 2019
- TW4-40 perched chloroform pumping well installed February 2018
- TW4-19 perched chloroform or nitrate pumping well
- MW-38 perched monitoring well installed February 2018
- MW-5 perched monitoring well
- TW4-12 temporary perched monitoring well
- TWN-7 temporary perched nitrate monitoring well
- PIEZ-1 perched piezometer
- RUIN SPRING** seep or spring



WHITE MESA SITE PLAN SHOWING LOCATIONS OF PERCHED WELLS AND PIEZOMETERS			
APPROVED	DATE	REFERENCE	FIGURE
		H:718000/aug19/Uwelloc0619.srf	A-1

Tab B

Field Data Worksheets Quarterly Sampling



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-05
Field Sample ID	MW-05_07112019
Purge Date & Time	7/11/2019 7:00
Sample Date & Time	7/11/2019 10:20
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	21.36
Calculated Casing Volumes Purge Duration (min)	196.92
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	25
Previous Well Sampled	MW-32

Well Depth (ft)	141.50
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	108.78

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/ After
7/11/2019 10:17	42.74	2635	7.37	15.55	306	1.4	15.2	
7/11/2019 10:18	42.96	2643	7.33	15.38	318	1.0	15.4	
7/11/2019 10:19	43.18	2645	7.31	15.35	330	1.0	15.4	
7/11/2019 10:20	43.40	2650	7.30	15.30	337	1.0	15.3	

Volume of water purged (gals)	43.40
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Final Depth to Water (feet)	127.00
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - U only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Arrived on site at 0655. Purge began at 0700. Purged well for a total of 200 minutes. Purge ended and samples collected at 1020. Water was clear. Left site at 1024.

Signature of Field Technician

Janice Holliday

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	200.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-11
Field Sample ID	MW-11_07162019
Purge Date & Time	7/16/2019 7:00
Sample Date & Time	7/16/2019 11:30
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	29.12
Calculated Casing Volumes Purge Duration (min)	268.42
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	22
Previous Well Sampled	MW-30

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	85.40

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/16/2019 11:27	57.93	2715	7.22	17.20	307	0	0	
7/16/2019 11:28	58.15	2675	7.21	17.20	314	0	0	
7/16/2019 11:29	58.37	2688	7.19	16.95	321	0	0	
7/16/2019 11:30	58.59	2660	7.21	16.93	325	0	0	

Volume of water purged (gals)	58.59
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Final Depth to Water (feet)	85.58
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Name of Certified Analytical Laboratory	AWSL
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Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	270.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:
Arrived on site at 0655. Purge began at 0700. Purged well for a total of 270 minutes. Purge ended and samples collected at 1130. Water was clear. Left site at 1145.

Signature of Field Technician

Juanita Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-12
Field Sample ID	MW-12_07112019
Purge Date & Time	7/11/2019 10:40
Sample Date & Time	7/11/2019 13:00

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	14.59
Calculated Casing Volumes Purge Duration (min)	134.51
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	31
Previous Well Sampled	MW-05

Well Depth (ft)	130.40
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	108.05

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/11/2019 12:57	29.72	3560	6.80	18.60	386	1.0	22.5	
7/11/2019 12:58	29.94	3630	6.79	18.40	403	1.0	22.0	
7/11/2019 12:59	30.16	3706	6.79	17.90	415	1.0	23.0	
7/11/2019 13:00	30.38	3791	6.79	17.50	428	1.0	24.1	

Volume of water purged (gals)	30.38
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Final Depth to Water (feet)	121.75
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	140.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - U only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:
Arrived on site at 1037. Purge began at 1040. Purged well for a total of 140 minutes. Purge ended and samples collected at 1300. Water was mostly clear. Left site at 1305.

Signature of Field Technician

Juanes Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-14
Field Sample ID	MW-14_07152019
Purge Date & Time	7/15/2019 12:05
Sample Date & Time	7/15/2019 14:45
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	17.20
Calculated Casing Volumes Purge Duration (min)	158.58
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2

Sampler	TH/DL
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Weather Conditions	Sunny
External Ambient Temperature (C)	32
Previous Well Sampled	MW-25

Well Depth (ft)	128.70
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	102.35

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/ After
7/15/2019 14:42	34.06	3373	6.50	18.31	306	0	0	
7/15/2019 14:43	34.28	3441	6.49	17.40	322	0	0	
7/15/2019 14:44	34.50	3476	6.50	17.39	337	0	0	
7/15/2019 14:45	34.72	3479	6.50	17.30	342	0	0	

Volume of water purged (gals)	34.72
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Final Depth to Water (feet)	102.63
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Name of Certified Analytical Laboratory	AWSL
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Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	160.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:
Arrived on site at 1202. Purge began at 1205. Purged well for a total of 160 minutes. Purge ended and samples collected at 1445. Water was clear. Left site at 1455.

Signature of Field Technician

Durren Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-24
Field Sample ID	MW-24_07182019
Purge Date & Time	7/17/2019 7:45
Sample Date & Time	7/18/2019 7:35

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2

Sampler	TH/DL
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Weather Conditions	Sunny
External Ambient Temperature (C)	24
Previous Well Sampled	MW-38

Purging Equipment	Bailer
Pump Type	Grundfos
Purging Method	2 Casings
Casing Volume (gal)	5.45
Calculated Casing Volumes Purge Duration ()	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Well Depth (ft)	120.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	111.65

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/17/2019 7:54	5.00	4051	4.90	15.82	459	94.0	74.9	
7/18/2019 7:35		4054	5.03	15.90				Before
7/18/2019 7:38		4055	5.03	15.86				After

Pumping Rate Calculations

Flow Rate (Q = S/60) ()	
Time to evacuate 2 Casing Volumes ()	
Number of casing Volumes	2.00
Volume, if well evacuated to dryness (gals)	12.00

Volume of water purged (gals)	12.00
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Final Depth to Water (feet)	112.00
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Be, Cd, Tl, and Ni only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Fluoride	Y	WATER	1	250-mL HDPE	U	None	N

Comments:

Arrived on site at 0741. Bailing began at 0745. Bailed a total of 12 gallons from well. Bottom of the well water was a dark grey with sand particles. Hydrolab readings were taken from a 5 gallon bucket. Left site at 0815. Arrived on site at 0732. Depth to water was 111.45. Samples bailed and collected at 0735. Left site at 0742.

Signature of Field Technician

Janner Holliday



White Mesa Mill

Field Data Worksheet For Groundwater

Location ID	MW-25
Field Sample ID	MW-25_07152019
Purge Date & Time	7/15/2019 7:45
Sample Date & Time	7/15/2019 11:45
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.98
Calculated Casing Volumes Purge Duration (min)	211.84
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	22
Previous Well Sampled	MW-31

Well Depth (ft)	115.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	79.80

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/15/2019 11:42	51.42	2881	6.74	15.50	352	2.8	0	
7/15/2019 11:43	51.64	2879	6.66	15.39	371	2.9	0	
7/15/2019 11:44	51.86	2885	6.63	15.45	391	3.0	0	
7/15/2019 11:45	52.08	2885	6.62	15.47	396	3.0	0	

Volume of water purged (gals)	52.08
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Final Depth to Water (feet)	81.72
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:
Arrived on site at 0742. Purge began at 0745. Purged well for a total of 240 minutes. Purge ended and samples collected at 1145. Water was clear with little tiny air bubbles surfacing. Left site at 1155.

Signature of Field Technician

Jarnee Holliday

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	240.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-26
Field Sample ID	MW-26_07162019
Purge Date & Time	7/16/2019 8:59
Sample Date & Time	7/16/2019 9:00

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2

Sampler	TH/DL
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Purging Equipment	Pump
Pump Type	Continuous
Purging Method	2 Casings
Casing Volume (gal)	31.16
Calculated Casing Volumes Purge Duration ()	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Sunny
External Ambient Temperature (C)	25
Previous Well Sampled	MW-11

Well Depth (ft)	121.33
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	73.61

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/ After
7/16/2019 9:00		3198	6.75	16.60	306	1.2	18.0	

Volume of water purged ()	
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Final Depth to Water (feet)	110.23
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	11.00
Time to evacuate 2 Casing Volumes ()	
Number of casing Volumes	
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:
Arrived on site at 0855. Samples collected at 0900. Water was clear. Left site at 0907.

Signature of Field Technician

Danner Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-27
Field Sample ID	MW-27_07122019
Purge Date & Time	7/12/2019 6:40
Sample Date & Time	7/12/2019 10:35
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	25.00
Calculated Casing Volumes Purge Duration (min)	230.50
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	25
Previous Well Sampled	MW-35

Well Depth (ft)	95.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	56.70

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/ After
7/12/2019 10:32	50.34	1016	6.97	15.40	356	0	103.7	
7/12/2019 10:33	50.56	1021	7.09	15.39	378	0	104.4	
7/12/2019 10:34	50.77	1021	7.13	15.50	372	0	104.7	
7/12/2019 10:35	50.99	1024	7.05	15.55	398	0	104.6	

Volume of water purged (gals)	50.99
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Final Depth to Water (feet)	58.32
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:

Arrived on site at 0635. Started purge at 0640, purged well for a total of 235 minutes. Purge ended and samples collected at 1035. Water was clear. Left site at 1040.

Signature of Field Technician

Janner Holliday

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	235.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill

Field Data Worksheet For Groundwater

Location ID	MW-27 Resample
Field Sample ID	MW-27_08152019
Purge Date & Time	8/15/2019 8:00
Sample Date & Time	8/15/2019 12:00

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	24.89
Calculated Casing Volumes Purge Duration (min)	229.42
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 Resample

Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	25
Previous Well Sampled	MW-32

Well Depth (ft)	95.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	56.88

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
8/15/2019 11:57	51.42	1031	7.05	16.60	303	0	107.4	
8/15/2019 11:58	51.64	1030	7.04	16.50	311	0	105.8	
8/15/2019 11:59	51.86	1036	7.03	16.40	316	0	104.2	
8/15/2019 12:00	52.08	1032	7.04	16.38	323	0	103.7	

Volume of water purged (gals)	52.08
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Final Depth to Water (feet)	58.40
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Name of Certified Analytical Laboratory	AWSL
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Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	240.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Comments:

Arrived on site at 0757. Purge began at 0800. Purged well for a total of 240 minutes. Purge ended and samples collected at 1200. Water was clear. Left site at 1203.

Signature of Field Technician

Darwin Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-28
Field Sample ID	MW-28_07122019
Purge Date & Time	7/12/2019 7:00
Sample Date & Time	7/12/2019 10:50
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.98
Calculated Casing Volumes Purge Duration (min)	211.84
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	25
Previous Well Sampled	MW-27

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	74.80

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/12/2019 10:47	49.25	3831	6.15	15.92	485	7.0	23.7	
7/12/2019 10:48	49.47	3896	6.17	15.80	483	3.1	23.6	
7/12/2019 10:49	49.69	3868	6.17	15.79	481	2.9	23.6	
7/12/2019 10:50	49.91	3849	6.16	15.73	478	2.8	23.5	

Volume of water purged (gals)	49.91
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Final Depth to Water (feet)	77.86
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	230.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y
Heavy Metals - U and Se only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Arrived on site at 0655 started purge at 0700 purged well for a total of 230 minutes. Purge ended and samples collected at 1050. Water was clear. Left site at 1056.

Signature of Field Technician

Janner Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-28 Resample
Field Sample ID	MW-28_08162019
Purge Date & Time	8/16/2019 8:00
Sample Date & Time	8/16/2019 12:00
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	23.05
Calculated Casing Volumes Purge Duration (min)	212.45
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 Resample
Sampler	TH/DL
Weather Conditions	Partly cloudy
External Ambient Temperature (C)	24
Previous Well Sampled	MW-27

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	74.70

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/ After
8/16/2019 11:57	51.42	3654	6.16	16.11	401	0	21.6	
8/16/2019 11:58	51.64	3668	6.17	15.96	404	1.0	23.7	
8/16/2019 11:59	51.86	3675	6.18	15.83	406	1.0	23.9	
8/16/2019 12:00	52.08	3656	6.18	15.78	409	1.1	23.6	

Volume of water purged (gals)	52.08
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Final Depth to Water (feet)	77.09
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	240.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N

Comments:

Arrived on site at 0755. Purge began at 0800. Purged well for a total of 240 minutes. Purge ended and samples collected at 1200. Water was clear. Left site at 1204.

Signature of Field Technician

Darrel Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-30
Field Sample ID	MW-30_07162019
Purge Date & Time	7/16/2019 6:50
Sample Date & Time	7/16/2019 10:25
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.85
Calculated Casing Volumes Purge Duration (min)	210.64
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	22
Previous Well Sampled	MW-14

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	75.00

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/16/2019 10:22	46.00	2009	6.92	15.20	357	1.1	56.6	
7/16/2019 10:23	46.22	1995	6.86	15.10	371	1.2	56.4	
7/16/2019 10:24	46.43	1997	6.87	15.11	382	1.1	56.4	
7/16/2019 10:25	46.65	1996	6.86	15.13	392	1.1	56.1	

Volume of water purged (gals)	46.65
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Final Depth to Water (feet)	77.42
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 0645. Purge began at 0650. Purged well for a total of 215 minutes. Purge ended and samples collected at 1025. Water was clear. Left site at 1035.

Signature of Field Technician

James Hillberry

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	215.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-31
Field Sample ID	MW-31_07152019
Purge Date & Time	7/15/2019 7:30
Sample Date & Time	7/15/2019 13:40
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	39.87
Calculated Casing Volumes Purge Duration (min)	367.54
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	22
Previous Well Sampled	MW-28

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	68.93

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/15/2019 13:37	79.63	2629	6.81	17.50	380	1.9	114.0	
7/15/2019 13:38	79.85	2633	6.82	17.49	389	1.9	112.1	
7/15/2019 13:39	80.07	2641	6.80	17.40	395	2.0	107.0	
7/15/2019 13:40	80.29	2645	6.79	17.40	398	2.1	106.1	

Volume of water purged (gals)	80.29
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Final Depth to Water (feet)	72.54
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	370.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:
Arrived on site at 0726. Purge began at 0730. Purged well for a total of 370 minutes. Purge ended and samples collected at 1340. Water was clear. Left site at 1350.

Signature of Field Technician

Darren Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-32
Field Sample ID	MW-32_08152019
Purge Date & Time	8/15/2019 7:50
Sample Date & Time	8/15/2019 13:00
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	32.69
Calculated Casing Volumes Purge Duration (min)	301.34
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 Resample
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	25
Previous Well Sampled	N/A

Well Depth (ft)	130.60
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	80.53

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
8/15/2019 12:57	66.61	3517	6.15	15.50	250	29.4	2.4	
8/15/2019 12:58	66.83	3489	6.15	15.30	255	30.0	2.0	
8/15/2019 12:59	67.05	3491	6.16	15.25	258	31.0	2.0	
8/15/2019 13:00	67.27	3502	6.16	15.31	260	32.0	2.0	

Volume of water purged (gals)	67.27
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Final Depth to Water (feet)	82.32
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N

Comments:

Arrived on site at 0745. Purge began at 0750. Purged well for a total of 310 minutes. Purge ended and samples collected at 1300. Water was mostly clear with little tiny air bubbles surfacing. Left site at 1303.

Signature of Field Technician

Janner Holliday

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	310.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-35
Field Sample ID	MW-35_07112019
Purge Date & Time	7/11/2019 12:30
Sample Date & Time	7/11/2019 13:45

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2

Sampler	TH/DL
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Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	7.83
Calculated Casing Volumes Purge Duration (min)	72.22
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Weather Conditions	Sunny
External Ambient Temperature (C)	32
Previous Well Sampled	MW-12

Well Depth (ft)	124.50
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	112.45

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/11/2019 13:42	15.62	3774	6.50	15.55	323	0	2.6	
7/11/2019 13:43	15.84	3756	6.54	15.60	332	0	2.2	
7/11/2019 13:44	16.05	3797	6.59	15.48	334	0	2.4	
7/11/2019 13:45	16.27	3801	6.61	15.43	336	0	2.4	

Volume of water purged (gals)	16.27
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Final Depth to Water (feet)	112.99
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Name of Certified Analytical Laboratory	AWSL
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Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	75.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Ammonia	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:
Arrived on site at 1225. Purge began at 1230. Purged well for a total of 75 minutes. Purge ended and samples collected at 1345. Water was clear. Left site at 1349.

Signature of Field Technician

Juanita Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-36
Field Sample ID	MW-36_07162019
Purge Date & Time	7/16/2019 12:25
Sample Date & Time	7/16/2019 13:40
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	7.18
Calculated Casing Volumes Purge Duration (min)	66.26
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	32
Previous Well Sampled	MW-40

Well Depth (ft)	121.60
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	110.59

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/16/2019 13:37	15.62	4485	6.62	16.11	338	0	79.8	
7/16/2019 13:38	15.84	4508	6.61	16.00	358	0	81.2	
7/16/2019 13:39	16.05	4486	6.60	15.98	370	0	80.6	
7/16/2019 13:40	16.27	4491	6.60	15.97	379	0	81.2	

Volume of water purged (gals) 16.27

Final Depth to Water (feet) 111.21

Name of Certified Analytical Laboratory
AWSL

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	75.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Arrived on site at 1220. Purge began at 1225. Purged well for a total of 75 minutes. Purge ended and samples collected at 1340. Water was clear. Left site at 1351.

Signature of Field Technician

Janice Holliday



White Mesa Mill

Field Data Worksheet For Groundwater

Location ID	MW-38
Field Sample ID	MW-38_07182019
Purge Date & Time	7/17/2019 7:05
Sample Date & Time	7/18/2019 7:00
Purging Equipment	Bailer
Pump Type	Grundfos
Purging Method	2 Casings
Casing Volume (gal)	2.46
Calculated Casing Volumes Purge Duration ()	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	21
Previous Well Sampled	MW-39

Well Depth (ft)	74.40
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	70.62

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/17/2019 7:17	4.50	4080	7.39	15.35	382	29.1	87.1	
7/18/2019 7:00		4058	7.41	15.53				Before
7/18/2019 7:03		4059	7.40	15.50				After

Volume of water purged (gals)	4.50
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Final Depth to Water (feet)	74.40
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Name of Certified Analytical Laboratory	GEL
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Pumping Rate Calculations

Flow Rate (Q = S/60) ()	
Time to evacuate 2 Casing Volumes ()	
Number of casing Volumes	1.82
Volume, if well evacuated to dryness (gals)	4.50

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y

Comments:
Arrived on site at 0705. Bailing began at 0709. Bailed a total of 4.50 gallons. Bailed well dry. Took hydrolab reading from a 5 gallon bucket. Left site at 0721.
Arrived on site at 0655. Depth to water was 70.64. Samples bailed and collected at 0700. Left site at 0706.

Signature of Field Technician

Janner Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-39
Field Sample ID	MW-39_07172019
Purge Date & Time	7/17/2019 7:00
Sample Date & Time	7/17/2019 11:00
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	24.22
Calculated Casing Volumes Purge Duration (min)	223.28
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	21
Previous Well Sampled	MW-36

Well Depth (ft)	102.50
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	65.40

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/17/2019 10:57	51.42	4286	4.30	15.51	557	2.3	2.3	
7/17/2019 10:58	51.64	4287	4.22	15.53	565	2.3	2.0	
7/17/2019 10:59	51.86	4272	4.19	15.47	569	2.1	1.9	
7/17/2019 11:00	52.08	4280	4.18	15.50	570	2.0	2.0	

Volume of water purged (gals)	52.08
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Final Depth to Water (feet)	69.73
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	240.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness (l)	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:
Arrived on site at 0655. Purge began at 0700. Purged well for a total of 240 minutes. Purge ended and samples collected at 1100. Water was clear. Left site at 1111.

Signature of Field Technician

Danner Holliday



White Mesa Mill

Field Data Worksheet For Groundwater

Location ID	MW-40
Field Sample ID	MW-40_07162019
Purge Date & Time	7/16/2019 10:40
Sample Date & Time	7/16/2019 14:45
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	26.12
Calculated Casing Volumes Purge Duration (min)	240.73
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2

Sampler	TH/DL
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Weather Conditions	Sunny
External Ambient Temperature (C)	29
Previous Well Sampled	MW-26

Well Depth (ft)	120.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	80.00

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
7/16/2019 14:42	52.51	3661	6.51	17.50	313	0	104.5	
7/16/2019 14:43	52.73	3589	6.50	17.48	329	0	97.4	
7/16/2019 14:44	52.94	3560	6.50	17.40	339	0	98.1	
7/16/2019 14:45	53.16	3559	6.50	17.39	348	0	98.3	

Volume of water purged (gals)	53.16
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Final Depth to Water (feet)	80.96
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Name of Certified Analytical Laboratory	GEL
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Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	245.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y

Comments:

Arrived on site at 1037. Purge began at 1040. Purged well for a total of 245 minutes. Purge ended and samples collected at 1445. Water was clear. Left site at 1455.

Signature of Field Technician

Darlene Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-65
Field Sample ID	MW-65_07162019
Purge Date & Time	
Sample Date & Time	7/16/2019 11:30
Purging Equipment	
Pump Type	
Purging Method	
Casing Volume ()	
Calculated Casing Volumes Purge Duration ()	
pH Buffer 7.0	
pH Buffer 4.0	
Specific Conductance ()	

Sampling Program	
Sampling Event	2019 Q3 GW - Rev 2
Sampler	TH/DL
Weather Conditions	
External Ambient Temperature ()	
Previous Well Sampled	

Well Depth (ft)	
Well Casing Diameter ()	
Depth to Water Before Purging (ft)	

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
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Volume of water purged ()

Final Depth to Water (feet)

Name of Certified Analytical Laboratory
AWSL

Pumping Rate Calculations

Flow Rate (Q = S/60) ()	
Time to evacuate 2 Casing Volumes ()	
Number of casing Volumes	
Volume, if well evacuated to dryness ()	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Total Dissolved Solids	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Nutrients	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
Heavy Metals - Full Suite	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
VOCs - Full Suite for GW	Y	WATER	3	40ml VOA	U	HCl (pH<2), 4 Deg C	Y
General Inorganics	Y	WATER	1	250-mL HDPE	U	4 Deg C	Y
Gross Alpha	Y	WATER	1	250-mL HDPE	Y	HNO3	Y

Comments:

Duplicate of MW-11

Signature of Field Technician

Janner Holliday

Tab C

Field Data Worksheets Accelerated Monitoring

Tab C1

Field Data Worksheets Accelerated Monitoring

August 2019



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-11
Field Sample ID	MW-11_08052019
Purge Date & Time	8/5/2019 7:20
Sample Date & Time	8/5/2019 11:50
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	28.96
Calculated Casing Volumes Purge Duration (min)	266.91
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	August Monthly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	21
Previous Well Sampled	N/A

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	85.65

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
8/5/2019 11:47	57.93	2805	7.40	15.51	371	1.0	1.0	
8/5/2019 11:48	58.15	2765	7.50	15.60	365	1.0	1.1	
8/5/2019 11:49	58.37	2762	7.53	15.65	363	1.1	1.0	
8/5/2019 11:50	58.59	2730	7.60	15.65	364	1.0	1.0	

Volume of water purged (gals)	58.59
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Final Depth to Water (feet)	85.70
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Mn only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Arrived on site at 0716. Purge began at 0720. Purged well for a total of 270 minutes. Purge ended and samples collected at 1150. Water was clear. Left site at 1155.

Signature of Field Technician

Juanita Holliday

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	270.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill

Field Data Worksheet For Groundwater

Location ID	MW-25
Field Sample ID	MW-25_08062019
Purge Date & Time	8/6/2019 7:15
Sample Date & Time	8/6/2019 10:50
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.95
Calculated Casing Volumes Purge Duration (min)	211.54
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	August Monthly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	26
Previous Well Sampled	MW-30

Well Depth (ft)	115.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	79.85

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
8/6/2019 10:47	46.00	2946	7.28	15.60	303	17.0	0	
8/6/2019 10:48	46.22	2928	7.13	15.55	315	19.0	0	
8/6/2019 10:49	46.43	2923	7.10	15.51	317	20.1	0	
8/6/2019 10:50	46.65	2923	7.08	15.43	321	21.0	0	

Volume of water purged (gals)	46.65
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Final Depth to Water (feet)	81.74
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	215.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Cd only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Arrived on site at 0710. Purge began at 0715. Purged well for a total of 215 minutes. Purge ended and samples collected at 1050. Water was clear with a lot of little tiny bubbles surfacing. Left site at 1055.

Signature of Field Technician

Juanita Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-26
Field Sample ID	MW-26_08062019
Purge Date & Time	8/6/2019 12:29
Sample Date & Time	8/6/2019 12:30
Purging Equipment	Pump
Pump Type	Continuous
Purging Method	2 Casings
Casing Volume (gal)	31.95
Calculated Casing Volumes Purge Duration ()	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	August Monthly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	32
Previous Well Sampled	MW-36

Well Depth (ft)	121.33
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	72.39

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
8/6/2019 12:30		3185	7.00	18.66	330	0	20.1	

Volume of water purged ()

Final Depth to Water (feet) 100.01

Name of Certified Analytical Laboratory
AWSL

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	11.00
Time to evacuate 2 Casing Volumes ()	
Number of casing Volumes	
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
VOCs - ChCl3 and MeCl2	Y	WATER	3	4oz glass jar	U	HCl (pH<2), 4 Deg C	Y
Ammonia	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:

Arrived on site at 1228. Samples collected at 1230. Water was clear. Left site at 1235.

Signature of Field Technician

James Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-30
Field Sample ID	MW-30_08062019
Purge Date & Time	8/6/2019 7:00
Sample Date & Time	8/6/2019 10:35
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.78
Calculated Casing Volumes Purge Duration (min)	210.04
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	August Monthly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	26
Previous Well Sampled	MW-31

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	75.10

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/ After
8/6/2019 10:32	46.00	1996	7.50	15.25	353	0	55.2	
8/6/2019 10:33	46.22	2002	7.45	15.23	366	0	55.6	
8/6/2019 10:34	46.43	2003	7.43	15.22	370	0	55.4	
8/6/2019 10:35	46.65	2004	7.42	15.17	372	0	55.1	

Volume of water purged (gals)	46.65
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Final Depth to Water (feet)	77.68
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - U and Se only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:

Arrived on site at 0655. Began purge at 0700. Purged well for a total of 210 minutes . Purge ended and samples collected at 1035. Water was clear. Left site at 1044.

Signature of Field Technician

Janner Holliday

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	215.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-31
Field Sample ID	MW-31_08052019
Purge Date & Time	8/5/2019 7:30
Sample Date & Time	8/5/2019 13:40
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	39.86
Calculated Casing Volumes Purge Duration (min)	367.42
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	August Monthly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	21
Previous Well Sampled	MW-11

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	68.95

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
8/5/2019 13:37	79.63	2740	7.42	16.09	327	0	121.1	
8/5/2019 13:38	79.85	2771	7.44	15.82	339	0	121.6	
8/5/2019 13:39	80.07	2756	7.44	15.85	344	0	121.8	
8/5/2019 13:40	80.29	2750	7.44	15.88	348	0	122.0	

Volume of water purged (gals)	80.29
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Final Depth to Water (feet)	72.65
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	370.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:

Arrived on site at 0726. Purge began at 0730. Purged well for a total of 370 minutes. Purge ended and samples collected at 1340. Water was clear. Left site at 1346.
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Signature of Field Technician

Janner Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-36
Field Sample ID	MW-36_08062019
Purge Date & Time	8/6/2019 11:00
Sample Date & Time	8/6/2019 12:15
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	7.21
Calculated Casing Volumes Purge Duration (min)	66.50
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	August Monthly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	31
Previous Well Sampled	MW-25

Well Depth (ft)	121.60
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	110.55

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
8/6/2019 12:12	15.62	4400	7.36	16.20	282	0	80.7	
8/6/2019 12:13	15.84	4480	7.35	15.80	302	0	80.6	
8/6/2019 12:14	16.05	4458	7.32	15.83	311	0	81.6	
8/6/2019 12:15	16.27	4472	7.33	15.80	321	0	80.8	

Volume of water purged (gals)	16.27
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Final Depth to Water (feet)	111.31
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Field pH only	Y	WATER	1	100-mL	U	None	N

Comments:
Arrived on site at 1058. Purge began at 1100. Purged well for a total of 75 minutes. Purge ended at 1215. Water was clear. Left site at 1217.

Signature of Field Technician

Darrell Holliday

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	75.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-65
Field Sample ID	MW-65_08062019
Purge Date & Time	
Sample Date & Time	8/6/2019 10:35

Sampling Program	
Sampling Event	August Monthly

Sampler	TH/DL
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Purging Equipment	
Pump Type	
Purging Method	
Casing Volume ()	
Calculated Casing Volumes Purge Duration ()	
pH Buffer 7.0	
pH Buffer 4.0	
Specific Conductance ()	

Weather Conditions	
External Ambient Temperature ()	
Previous Well Sampled	

Well Depth (ft)	
Well Casing Diameter ()	
Depth to Water Before Purging (ft)	

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	Dissolved Oxygen	Before/After
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Volume of water purged ()	
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Final Depth to Water (feet)	
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) ()	
Time to evacuate 2 Casing Volumes ()	
Number of casing Volumes	
Volume, if well evacuated to dryness ()	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Heavy Metals - U and Se only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:	Duplicate of MW-30
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Signature of Field Technician

Janner Holliday

Tab C2

Field Data Worksheets Accelerated Monitoring

September 2019



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-11
Field Sample ID	MW-11_09242019
Purge Date & Time	9/24/2019 7:25
Sample Date & Time	9/24/2019 11:55
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	29.05
Calculated Casing Volumes Purge Duration (min)	267.82
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	September Monthly
Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	13
Previous Well Sampled	MW-30

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	85.50

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	DO	Before/After
9/24/2019 11:52	57.93	2725	7.40	15.44	230	0	3.1	
9/24/2019 11:53	58.15	2750	7.37	15.36	238	0	3.7	
9/24/2019 11:54	58.37	2754	7.37	15.35	243	0	3.5	
9/24/2019 11:55	58.59	2758	7.36	15.37	248	0	3.5	

Volume of water purged (gals)	58.59
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Final Depth to Water (feet)	85.64
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Name of Certified Analytical Laboratory	
AWSL	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Mn only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Arrived on site at 0722. Purge began at 0725. Purged well for a total of 270 minutes. Purge ended and samples collected at 1155. Water was clear. Left site at 1200.

Signature of Field Technician

Janner Holliday

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	270.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-25
Field Sample ID	MW-25_09232019
Purge Date & Time	9/23/2019 7:20
Sample Date & Time	9/23/2019 11:20
Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.90
Calculated Casing Volumes Purge Duration (min)	211.12
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	September Monthly
Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	12
Previous Well Sampled	MW-31

Well Depth (ft)	115.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	79.92

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	DO	Before/After
9/23/2019 11:17	51.42	2931	6.76	15.55	265	3.3	0	
9/23/2019 11:18	51.64	2920	6.75	15.50	264	1.0	0	
9/23/2019 11:19	51.86	2929	6.74	15.48	262	1.1	0	
9/23/2019 11:20	52.08	2923	6.74	15.50	261	1.1	0	

Volume of water purged (gals)	52.08
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Final Depth to Water (feet)	83.23
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	240.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Cd only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Arrived on site at 0717. Purge began at 0720. Purged well for a total of 240 minutes. Purge ended and sample collected at 1120. Water was clear. Left site at 1124.

Signature of Field Technician

Janner Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-26
Field Sample ID	MW-26_09242019
Purge Date & Time	9/24/2019 9:29
Sample Date & Time	9/24/2019 9:30

Purging Equipment	Pump
Pump Type	Continuous
Purging Method	2 Casings
Casing Volume (gal)	30.75
Calculated Casing Volumes Purge Duration ()	
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	September Monthly

Sampler	TH/DL
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Weather Conditions	Sunny
External Ambient Temperature (C)	16
Previous Well Sampled	MW-11

Well Depth (ft)	121.33
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	74.23

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	DO	Before/After
9/24/2019 9:29		3240	6.75	15.45	311	3.5	18.2	

Volume of water purged ()	
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Final Depth to Water (feet)	100.48
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	10.00
Time to evacuate 2 Casing Volumes ()	
Number of casing Volumes	
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y
VOCs - ChCl3 and MeCl2	Y	WATER	3	4oz glass jar	U	HCl (pH<2), 4 Deg C	Y
Ammonia	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:

Arrived on site at 0926. Samples collected at 0930. Water was clear. Left site at 0935.

Signature of Field Technician

Janner Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-30
Field Sample ID	MW-30_09242019
Purge Date & Time	9/24/2019 7:00
Sample Date & Time	9/24/2019 10:35

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	22.69
Calculated Casing Volumes Purge Duration (min)	209.14
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	September Monthly

Sampler	TH/DL
Weather Conditions	Sunny
External Ambient Temperature (C)	13
Previous Well Sampled	MW-36

Well Depth (ft)	110.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	75.25

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	DO	Before/After
9/24/2019 10:32	46.00	2024	7.08	14.90	309	1.5	33.4	
9/24/2019 10:33	46.22	2028	7.01	14.90	328	1.7	32.7	
9/24/2019 10:34	46.43	2027	7.01	14.89	331	1.8	32.5	
9/24/2019 10:35	46.65	2027	7.00	14.90	337	1.8	32.4	

Volume of water purged (gals)	46.65
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Final Depth to Water (feet)	
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	215.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - U and Se only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:
Arrived on site at 0657. Purge began at 0700. Purged well for a total of 215 minutes. Purge ended and samples collected at 1035. Water was clear. Left site at 1042.

Signature of Field Technician

Janner Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-31
Field Sample ID	MW-31_09232019
Purge Date & Time	9/23/2019 7:10
Sample Date & Time	9/23/2019 13:20

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	39.86
Calculated Casing Volumes Purge Duration (min)	367.42
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampling Program	
Sampling Event	September Monthly

Sampler	TH/DL
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Weather Conditions	Cloudy
External Ambient Temperature (C)	12
Previous Well Sampled	N/A

Well Depth (ft)	130.00
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	68.95

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	DO	Before/After
9/23/2019 13:17	79.63	2805	7.24	15.40	286	0	119.5	
9/23/2019 13:18	79.85	2812	7.15	15.18	301	0	119.0	
9/23/2019 13:19	80.07	2820	7.13	15.15	310	0	119.3	
9/23/2019 13:20	80.29	2816	7.13	15.12	316	0	118.8	

Volume of water purged (gals)	80.29
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Final Depth to Water (feet)	72.71
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	370.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Chloride	Y	WATER	1	500-mL Poly	U	None	N
Nitrate/nitrite as N	Y	WATER	1	250-mL HDPE	U	H2SO4 (pH<2), 4 Deg C	Y

Comments:
Arrived on site at 0707. Purge began at 0710. Purged well for a total of 370 minutes. Purge ended and samples collected at 1320. Water was clear. Left site at 1325.

Signature of Field Technician

Darwin Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-36
Field Sample ID	MW-36_09232019
Purge Date & Time	9/23/2019 12:00
Sample Date & Time	9/23/2019 13:40

Sampling Program	
Sampling Event	September Monthly

Purging Equipment	Pump
Pump Type	QED
Purging Method	2 Casings
Casing Volume (gal)	7.22
Calculated Casing Volumes Purge Duration (min)	66.56
pH Buffer 7.0	7.0
pH Buffer 4.0	4.0
Specific Conductance (micromhos)	1000

Sampler	TH/DL
Weather Conditions	Cloudy
External Ambient Temperature (C)	21
Previous Well Sampled	MW-25

Well Depth (ft)	121.60
Well Casing Diameter (in)	4
Depth to Water Before Purging (ft)	110.54

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	DO	Before/After
9/23/2019 13:37	21.04	4530	6.93	14.80	435	0	78.6	
9/23/2019 13:38	21.26	4518	6.92	14.80	435	0	78.7	
9/23/2019 13:39	21.48	4521	6.92	14.89	434	0	78.7	
9/23/2019 13:40	21.70	4519	6.92	14.89	435	0	78.9	

Volume of water purged (gals)	21.70
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Final Depth to Water (feet)	111.95
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Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) (gal/min)	.217
Time to evacuate 2 Casing Volumes (min)	100.00
Number of casing Volumes	2.00
Volume, if well evacuated to dryness ()	0

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Field pH only	Y	WATER	1	100-mL	U	None	N

Comments:

Arrived on site at 1157. Purge began at 1200. Purged well for a total of 100 minutes. Purge ended at 1340. Water was clear. Left site at 1342.

Signature of Field Technician

Jarnea Holliday



White Mesa Mill
Field Data Worksheet For Groundwater

Location ID	MW-65
Field Sample ID	MW-65_09242019
Purge Date & Time	
Sample Date & Time	9/24/2019 11:55

Sampling Program	
Sampling Event	September Monthly

Sampler	TH/DL
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Purging Equipment	
Pump Type	
Purging Method	
Casing Volume ()	
Calculated Casing Volumes Purge Duration ()	
pH Buffer 7.0	
pH Buffer 4.0	
Specific Conductance ()	

Weather Conditions	
External Ambient Temperature ()	
Previous Well Sampled	

Well Depth (ft)	
Well Casing Diameter ()	
Depth to Water Before Purging (ft)	

Date/Time	Gallons Purged	Conductivity	pH	Temp (Deg C)	Redox	Turbidity	DO	Before/After
-----------	----------------	--------------	----	--------------	-------	-----------	----	--------------

Volume of water purged ()	
----------------------------	--

Final Depth to Water (feet)	
-----------------------------	--

Name of Certified Analytical Laboratory	
AWSL	

Pumping Rate Calculations

Flow Rate (Q = S/60) ()	
Time to evacuate 2 Casing Volumes ()	
Number of casing Volumes	
Volume, if well evacuated to dryness ()	

Analytical Samples Information

Type of Sample/Analysis	Sample Collected?	Matrix	Container		Sample Filtered?	Preservative	
			Number	Type		Type	Added?
Heavy Metals - Mn only	Y	WATER	1	250-mL HDPE	Y	HNO3 (pH<2)	Y

Comments:

Duplicate of MW-11

Signature of Field Technician

Darrell Holliday

Tab D

Quarterly Depth to Water

Date	Time	Well	Depth to Water (ft.)	Date	Time	Well	Depth to Water (ft.)	Date	Time	Well	Depth to Water (ft.)
8/13/2019	1248	MW-01	64.75	8/12/2019	855	MW-04	83.66	8/13/2019	1239	PIEZ-01	66.73
8/13/2019	1416	MW-02	109.68	8/12/2019	903	TW4-01	80.02	8/13/2019	1234	PIEZ-02	44.03
8/13/2019	1310	MW-03A	84.17	8/12/2019	847	TW4-02	102.43	8/13/2019	1215	PIEZ-03A	55.14
8/13/2019	1408	MW-05	108.62	8/12/2019	1311	TW4-03	62.19	8/13/2019	1338	PIEZ-04	64.43
8/13/2019	1429	MW-11	85.40	8/12/2019	918	TW4-04	86.34	8/13/2019	1341	PIEZ-05	63.82
8/13/2019	1406	MW-12	107.88	8/12/2019	1317	TW4-05	69.58	8/13/2019	1338	TWN-01	66.97
8/13/2019	1344	MW-14	102.28	8/12/2019	1303	TW4-06	76.50	8/12/2019	746	TWN-02	61.31
8/13/2019	1347	MW-15	105.60	8/12/2019	1305	TW4-07	81.32	8/13/2019	1335	TWN-03	42.00
8/13/2019	1314	MW-17	71.97	8/12/2019	1308	TW4-08	84.58	8/13/2019	1331	TWN-04	59.91
8/13/2019	1245	MW-18	73.39	8/12/2019	1315	TW4-09	67.58	8/13/2019	1242	TWN-06	80.08
8/13/2019	1237	MW-19	64.94	8/12/2019	1320	TW4-10	67.03	8/13/2019	1340	TWN-07	81.98
8/13/2019	1212	MW-20	86.80	8/12/2019	840	TW4-11	91.13	8/13/2019	1231	TWN-14	60.21
8/13/2019	1153	MW-22	67.50	8/12/2019	1252	TW4-12	53.69	8/13/2019	1228	TWN-16	47.83
8/13/2019	1404	MW-23	114.04	8/12/2019	1250	TW4-13	55.16	8/13/2019	1328	TWN-18	61.69
8/13/2019	1421	MW-24	111.32	8/12/2019	1246	TW4-14	77.60	8/13/2019	1224	TWN-19	53.97
8/13/2019	1335	MW-25	79.78	8/12/2019	1313	TW4-16	71.82	8/13/2019	1254	DR-05	83.14
8/12/2019	832	MW-26	76.38	8/12/2019	1334	TW4-18	70.75	8/13/2019	1251	DR-06	94.21
8/13/2019	1325	MW-27	56.61	8/12/2019	1003	TW4-19	77.13	8/13/2019	1355	DR-07	91.86
8/13/2019	1424	MW-28	74.71	8/12/2019	817	TW4-20	73.45	8/13/2019	1246	DR-08	51.50
8/13/2019	1413	MW-29	107.77	8/12/2019	730	TW4-21	75.18	8/13/2019	1244	DR-09	86.53
8/13/2019	1327	MW-30	75.05	8/12/2019	803	TW4-22	71.91	8/13/2019	1241	DR-10	78.44
8/13/2019	1323	MW-31	68.84	8/12/2019	1301	TW4-23	73.36	8/13/2019	1301	DR-11	98.06
8/12/2019	1317	MW-32	80.37	8/12/2019	756	TW4-24	78.29	8/13/2019	1304	DR-12	91.75
8/13/2019	1353	MW-33	DRY	8/12/2019	738	TW4-25	72.76	8/13/2019	1307	DR-13	69.81
8/13/2019	1351	MW-34	107.54	8/12/2019	1259	TW4-26	70.72	8/13/2019	1237	DR-14	76.21
8/13/2019	1400	MW-35	112.27	8/12/2019	1232	TW4-27	78.70	8/13/2019	1207	DR-15	92.83
8/13/2019	1358	MW-36	110.51	8/12/2019	1249	TW4-28	46.76	8/13/2019	1234	DR-17	64.78
8/13/2019	1349	MW-37	106.41	8/12/2019	1234	TW4-29	76.40	8/13/2019	1225	DR-19	63.24
8/13/2019	1158	MW-38	70.81	8/12/2019	1241	TW4-30	74.77	8/13/2019	1223	DR-20	55.43
8/13/2019	1201	MW-39	65.39	8/12/2019	1243	TW4-31	76.55	8/13/2019	1216	DR-21	100.80
8/13/2019	1318	MW-40	80.01	8/12/2019	1246	TW4-32	54.81	8/13/2019	1231	DR-22	DRY
				8/12/2019	1230	TW4-33	75.75	8/13/2019	1219	DR-23	70.42
				8/12/2019	1236	TW4-34	74.59	8/13/2019	1228	DR-24	44.51
				8/12/2019	1239	TW4-35	74.56				
				8/12/2019	1248	TW4-36	57.04				
				8/12/2019	810	TW4-37	81.01				
				8/12/2019	1313	TW4-38	57.68				
				8/12/2019	825	TW4-39	74.53				
				8/12/2019	927	TW4-40	70.60				
				8/12/2019	910	TW4-41	84.21				
				8/12/2019	1256	TW4-42	66.80				

MW-26 = TW4-15

MW-32 = TW4-17

Comments:

Tab E

Laboratory Analytical Reports – Quarterly Sampling



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-001
Client Sample ID: MW-05_07112019
Collection Date: 7/11/2019 1020h
Received Date: 7/19/2019 1130h

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Uranium	mg/L	7/30/2019 745h	8/2/2019 1438h	E200.8	0.000300	0.000711	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-008
Client Sample ID: MW-11_07162019
Collection Date: 7/16/2019 1130h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1849h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2104h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1849h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1627h	E200.7	20.0	113	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1849h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1849h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1659h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2104h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/1/2019 2104h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1627h	E200.7	20.0	38.0	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1333h	E200.8	0.0100	0.199	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1643h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1849h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1849h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/30/2019 1714h	E200.7	1.00	8.02	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1849h	E200.8	0.00500	< 0.00500	
Silver	mg/L	7/30/2019 745h	8/1/2019 1849h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1627h	E200.7	20.0	641	²
Thallium	mg/L	7/30/2019 745h	8/1/2019 2104h	E200.8	0.000500	< 0.000500	
Tin	mg/L	7/30/2019 745h	8/2/2019 1333h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/2/2019 1448h	E200.8	0.000300	0.00108	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1714h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1333h	E200.8	0.0100	< 0.0100	

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-008
Client Sample ID: MW-11_07162019
Collection Date: 7/16/2019 1130h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1018h	E350.1	0.0500	0.852	
Bicarbonate (as CaCO3)	mg/L		7/23/2019 600h	SM2320B	1.00	308	
Carbonate (as CaCO3)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/12/2019 1726h	E300.0	1.00	48.4	
Fluoride	mg/L		8/12/2019 1923h	E300.0	0.100	0.323	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	0.0000977	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1332h	E353.2	0.100	0.558	
Sulfate	mg/L		8/12/2019 1243h	E300.0	75.0	1,410	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		36.9	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		36.9	
Total Dissolved Solids	mg/L		7/22/2019 1240h	SM2540C	20.0	1,890	@
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.775	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		2,440	

@ - High RPD due to suspected sample non-homogeneity or matrix interference.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-008F
Client Sample ID: MW-11_07162019
Collection Date: 7/16/2019 1130h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1445h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	57.1	50.00	114	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.5	50.00	101	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.1	50.00	98.2	72-135	
Surr: Toluene-d8		2037-26-5	48.2	50.00	96.4	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: White Mesa Mill GW

Client Sample ID: MW-11_07162019 Project: DNMI00100
Sample ID: 485412002 Client ID: DNMI001
Matrix: Ground Water
Collect Date: 16-JUL-19 11:30
Receive Date: 23-JUL-19
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.284	0.932	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			95.8	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-002
Client Sample ID: MW-12_07112019
Collection Date: 7/11/2019 1300h
Received Date: 7/19/2019 1130h

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Uranium	mg/L	7/30/2019 745h	8/2/2019 1441h	E200.8	0.000300	0.0231	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-009
Client Sample ID: MW-14_07152019
Collection Date: 7/15/2019 1445h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

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Jose Rocha

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Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1914h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2107h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1914h	E200.8	0.000500	0.00125	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1634h	E200.7	20.0	576	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1914h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1914h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1708h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2107h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/1/2019 2107h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1634h	E200.7	20.0	174	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1342h	E200.8	0.0100	1.86	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1645h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1914h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1914h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/30/2019 1725h	E200.7	1.00	13.1	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1914h	E200.8	0.00500	< 0.00500	
Silver	mg/L	7/30/2019 745h	8/1/2019 1914h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1634h	E200.7	20.0	370	
Thallium	mg/L	7/30/2019 745h	8/1/2019 2107h	E200.8	0.000500	< 0.000500	
Tin	mg/L	7/30/2019 745h	8/2/2019 1342h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/2/2019 1451h	E200.8	0.000300	0.0597	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1725h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1342h	E200.8	0.0100	0.0134	



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-009
Client Sample ID: MW-14_07152019
Collection Date: 7/15/2019 1445h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1019h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	388	
Carbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/12/2019 1710h	E300.0	1.00	20.1	
Fluoride	mg/L		8/12/2019 1940h	E300.0	0.100	0.248	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	0.145	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1333h	E353.2	0.100	< 0.100	
Sulfate	mg/L		8/12/2019 1603h	E300.0	150	2,450	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		59.3	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		59.5	
Total Dissolved Solids	mg/L		7/19/2019 1700h	SM2540C	20.0	3,280	
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.856	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		3,830	



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-009F
Client Sample ID: MW-14_07152019
Collection Date: 7/15/2019 1445h
Received Date: 7/19/2019 1130h

Contact: Tamer Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1505h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	58.8	50.00	118	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	48.0	50.00	96.1	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.8	50.00	99.7	72-135	
Surr: Toluene-d8		2037-26-5	48.3	50.00	96.5	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: MW-14_07152019	Project: DNMI00100
Sample ID: 485412003	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 15-JUL-19 14:45	
Receive Date: 23-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.04	+/-0.365	0.992	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			99.1	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-003
Client Sample ID: MW-24_07182019
Collection Date: 7/18/2019 735h
Received Date: 7/19/2019 1130h

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2101h	E200.8	0.000500	0.00294	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1843h	E200.8	0.000500	0.00837	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1843h	E200.8	0.0200	0.0706	
Thallium	mg/L	7/30/2019 745h	8/1/2019 2101h	E200.8	0.000500	0.00261	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-003
Client Sample ID: MW-24_07182019
Collection Date: 7/18/2019 735h
Received Date: 7/19/2019 1130h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Fluoride	mg/L		8/12/2019 1907h	E300.0	0.100	0.996	

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Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-010
Client Sample ID: MW-25_07152019
Collection Date: 7/15/2019 1145h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1917h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2110h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1917h	E200.8	0.000500	0.00123	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1636h	E200.7	20.0	398	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1917h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1917h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1712h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2110h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/1/2019 2110h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1636h	E200.7	20.0	136	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1346h	E200.8	0.0100	1.46	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1655h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1917h	E200.8	0.0100	0.0165	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1917h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/30/2019 1728h	E200.7	1.00	10.6	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1917h	E200.8	0.00500	< 0.00500	
Silver	mg/L	7/30/2019 745h	8/1/2019 1917h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1636h	E200.7	20.0	313	
Thallium	mg/L	7/30/2019 745h	8/1/2019 2110h	E200.8	0.000500	0.000827	
Tin	mg/L	7/30/2019 745h	8/2/2019 1346h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/2/2019 1454h	E200.8	0.000300	0.00688	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1728h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1346h	E200.8	0.0100	< 0.0100	

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Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-010
Client Sample ID: MW-25_07152019
Collection Date: 7/15/2019 1145h
Received Date: 7/19/2019 1130h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1020h	E350.1	0.0500	0.607	
Bicarbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	328	
Carbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/10/2019 2228h	E300.0	1.00	34.3	
Fluoride	mg/L		8/11/2019 115h	E300.0	0.100	0.298	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	3.25	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1334h	E353.2	0.100	< 0.100	
Sulfate	mg/L		8/10/2019 1851h	E300.0	150	1,660	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		42.1	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		44.9	
Total Dissolved Solids	mg/L		7/19/2019 1700h	SM2540C	20.0	2,630	
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.956	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		2,750	

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Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-010F
Client Sample ID: MW-25_07152019
Collection Date: 7/15/2019 1145h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1525h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	59.0	50.00	118	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	47.8	50.00	95.6	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.9	50.00	99.7	72-135	
Surr: Toluene-d8		2037-26-5	48.7	50.00	97.4	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

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Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: White Mesa Mill GW

Client Sample ID: MW-25_07152019 Project: DNMI00100
Sample ID: 485412004 Client ID: DNMI001
Matrix: Ground Water
Collect Date: 15-JUL-19 11:45
Receive Date: 23-JUL-19
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.86	+/-0.487	0.900	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			94.3	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-011
Client Sample ID: MW-26_07162019
Collection Date: 7/16/2019 900h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1920h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2113h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1920h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1638h	E200.7	20.0	620	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1920h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1920h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1715h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2113h	E200.8	0.0300	0.414	
Lead	mg/L	7/30/2019 745h	8/1/2019 2113h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1638h	E200.7	20.0	208	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1349h	E200.8	0.0100	0.697	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1657h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1920h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1920h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/30/2019 1730h	E200.7	1.00	13.0	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1920h	E200.8	0.00500	0.00610	
Silver	mg/L	7/30/2019 745h	8/1/2019 1920h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1638h	E200.7	20.0	200	
Thallium	mg/L	7/30/2019 745h	8/1/2019 2113h	E200.8	0.000500	< 0.000500	
Tin	mg/L	7/30/2019 745h	8/2/2019 1349h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/2/2019 1457h	E200.8	0.000300	0.0533	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1730h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1349h	E200.8	0.0100	< 0.0100	

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 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-011
Client Sample ID: MW-26_07162019
Collection Date: 7/16/2019 900h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1020h	E350.1	0.0500	0.357	
Bicarbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	330	
Carbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/10/2019 2245h	E300.0	1.00	75.2	
Fluoride	mg/L		8/11/2019 132h	E300.0	0.100	0.538	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	6.75	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1316h	E353.2	0.100	2.06	
Sulfate	mg/L		8/10/2019 1908h	E300.0	150	1,970	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		49.8	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		57.1	
Total Dissolved Solids	mg/L		7/22/2019 1240h	SM2540C	20.0	3,100	
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.941	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		3,290	



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-011F
Client Sample ID: MW-26_07162019
Collection Date: 7/16/2019 900h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/22/2019 1634h

Units: µg/L **Dilution Factor:** 50 **Method:** SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Chloroform	67-66-3	50.0	3,110	~

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e-mail: awal@awal-labs.com

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	3,050	2,500	122	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	2,430	2,500	97.1	80-152	
Surr: Dibromofluoromethane		1868-53-7	2,540	2,500	102	72-135	
Surr: Toluene-d8		2037-26-5	2,430	2,500	97.1	80-124	

~ - The reporting limits were raised due to high analyte concentrations.

web: www.awal-labs.com

Analyzed: 7/19/2019 1545h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	10.7	*
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	58.9	50.00	118	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.4	50.00	101	80-152	
Surr: Dibromofluoromethane		1868-53-7	52.1	50.00	104	72-135	
Surr: Toluene-d8		2037-26-5	49.3	50.00	98.7	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

* - This compound exceeded (high) the control limit for the CCV. The compound concentration is estimated and may be biased high.

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Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: White Mesa Mill GW

Client Sample ID: MW-26_07162019 Project: DNMI00100
Sample ID: 485412005 Client ID: DNMI001
Matrix: Ground Water
Collect Date: 16-JUL-19 09:00
Receive Date: 23-JUL-19
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		4.50	+/-0.606	0.971	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			98.3	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-004
Client Sample ID: MW-27_07122019
Collection Date: 7/12/2019 1035h
Received Date: 7/19/2019 1130h

Analytical Results

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1259h	E353.2	0.100	6.50	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1908464-002
Client Sample ID: MW-27_08152019
Collection Date: 8/15/2019 1200h
Received Date: 8/20/2019 1010h

Analytical Results

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Chloride	mg/L		8/28/2019 1317h	E300.0	1.00	30.8	

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INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-005
Client Sample ID: MW-28_07122019
Collection Date: 7/12/2019 1050h
Received Date: 7/19/2019 1130h

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Selenium	mg/L	7/30/2019 745h	8/1/2019 1846h	E200.8	0.00500	0.0106	
Uranium	mg/L	7/30/2019 745h	8/2/2019 1444h	E200.8	0.000300	0.00783	

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INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1908464-003
Client Sample ID: MW-28_08162019
Collection Date: 8/16/2019 1200h
Received Date: 8/20/2019 1010h

Analytical Results

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Chloride	mg/L		8/28/2019 1334h	E300.0	10.0	133	

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GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: MW-28_07122019	Project: DNMI00100
Sample ID: 485412001	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 12-JUL-19 10:50	
Receive Date: 23-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.20	+/-0.137	0.216	1.00	pCi/L			JXK3	07/29/19	1150	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			98	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-012
Client Sample ID: MW-30_07162019
Collection Date: 7/16/2019 1025h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1923h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2116h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1923h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1640h	E200.7	20.0	320	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1923h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1923h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1718h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2116h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/1/2019 2116h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1640h	E200.7	20.0	86.8	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1352h	E200.8	0.0100	0.0111	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1703h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1923h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1923h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/31/2019 1111h	E200.7	1.00	6.96	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1923h	E200.8	0.00500	0.0484	
Silver	mg/L	7/30/2019 745h	8/1/2019 1923h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1640h	E200.7	20.0	109	
Thallium	mg/L	7/30/2019 745h	8/1/2019 2116h	E200.8	0.000500	< 0.000500	
Tin	mg/L	7/30/2019 745h	8/2/2019 1352h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/2/2019 1500h	E200.8	0.000300	0.00903	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1732h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1352h	E200.8	0.0100	< 0.0100	

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QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-012
Client Sample ID: MW-30_07162019
Collection Date: 7/16/2019 1025h
Received Date: 7/19/2019 1130h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1026h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO3)	mg/L		7/23/2019 600h	SM2320B	1.00	174	
Carbonate (as CaCO3)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/12/2019 1333h	E300.0	10.0	181	
Fluoride	mg/L		8/12/2019 1957h	E300.0	0.100	0.405	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	3.10	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1317h	E353.2	0.100	19.3	
Sulfate	mg/L		8/12/2019 1333h	E300.0	75.0	838	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		26.3	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		28.0	
Total Dissolved Solids	mg/L		7/22/2019 1240h	SM2540C	20.0	1,590	
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.956	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		1,670	

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ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-012F
Client Sample ID: MW-30_07162019
Collection Date: 7/16/2019 1025h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1644h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	59.4	50.00	119	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.9	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.9	50.00	99.7	72-135	
Surr: Toluene-d8		2037-26-5	48.4	50.00	96.9	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: White Mesa Mill GW

Client Sample ID: MW-30_07162019 Project: DNMI00100
Sample ID: 485412006 Client ID: DNMI001
Matrix: Ground Water
Collect Date: 16-JUL-19 10:25
Receive Date: 23-JUL-19
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.303	0.989	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			99.4	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-013
Client Sample ID: MW-31_07152019
Collection Date: 7/15/2019 1340h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1926h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2119h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1926h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1648h	E200.7	20.0	400	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1926h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1926h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1730h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2119h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/1/2019 2119h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1648h	E200.7	20.0	188	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1407h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1706h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1926h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1926h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/31/2019 1113h	E200.7	1.00	7.76	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1926h	E200.8	0.00500	0.0911	
Silver	mg/L	7/30/2019 745h	8/1/2019 1926h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1648h	E200.7	20.0	130	
Thallium	mg/L	7/30/2019 745h	8/1/2019 2119h	E200.8	0.000500	< 0.000500	
Tin	mg/L	7/30/2019 745h	8/2/2019 1407h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/2/2019 1503h	E200.8	0.000300	0.0143	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1741h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1407h	E200.8	0.0100	< 0.0100	

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QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-013
Client Sample ID: MW-31_07152019
Collection Date: 7/15/2019 1340h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1027h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	190	
Carbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/12/2019 1546h	E300.0	10.0	374	
Fluoride	mg/L		8/12/2019 2013h	E300.0	0.100	0.891	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	3.48	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1319h	E353.2	0.100	19.8	
Sulfate	mg/L		8/12/2019 1546h	E300.0	75.0	1,150	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		38.5	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		41.3	
Total Dissolved Solids	mg/L		7/19/2019 1700h	SM2540C	20.0	2,580	
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		1.08	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		2,380	

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QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-013F
Client Sample ID: MW-31_07152019
Collection Date: 7/15/2019 1340h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1704h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

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 Laboratory Director

Jose Rocha
 QA Officer

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	59.1	50.00	118	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	49.7	50.00	99.5	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.9	50.00	99.8	72-135	
Surr: Toluene-d8		2037-26-5	48.5	50.00	97.0	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

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Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: White Mesa Mill GW

Client Sample ID: MW-31_07152019 Project: DNMI00100
Sample ID: 485412007 Client ID: DNMI001
Matrix: Ground Water
Collect Date: 15-JUL-19 13:40
Receive Date: 23-JUL-19
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha	U	1.00	+/-0.344	0.952	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			97.6	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1908464-001
Client Sample ID: MW-32_08152019
Collection Date: 8/15/2019 1300h
Received Date: 8/20/2019 1010h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		8/28/2019 1227h	E300.0	1.00	35.7	

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INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-007
Client Sample ID: MW-35_07112019
Collection Date: 7/11/2019 1345h
Received Date: 7/19/2019 1130h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1016h	E350.1	0.0500	0.0935	'

' - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

3440 South 700 West

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-018
Client Sample ID: MW-36_07162019
Collection Date: 7/16/2019 1340h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

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Jose Rocha

QA Officer

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1942h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/2/2019 1746h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1942h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1659h	E200.7	20.0	543	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1942h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1942h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1746h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2144h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/2/2019 1746h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1659h	E200.7	20.0	170	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1423h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1716h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1942h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1942h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/31/2019 1125h	E200.7	1.00	10.5	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1942h	E200.8	0.00500	0.233	
Silver	mg/L	7/30/2019 745h	8/1/2019 1942h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1659h	E200.7	20.0	789	
Thallium	mg/L	7/30/2019 745h	8/2/2019 1746h	E200.8	0.000500	0.000636	
Tin	mg/L	7/30/2019 745h	8/2/2019 1423h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/1/2019 2247h	E200.8	0.000300	0.0247	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1753h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1423h	E200.8	0.0100	< 0.0100	



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-018
Client Sample ID: MW-36_07162019
Collection Date: 7/16/2019 1340h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

3440 South 700 West Salt Lake City, UT 84119	Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Phone: (801) 263-8686 Toll Free: (888) 263-8686 Fax: (801) 263-8687 e-mail: awal@awal-labs.com web: www.awal-labs.com Kyle F. Gross Laboratory Director Jose Rocha QA Officer	Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1031h	E350.1	0.0500	< 0.0500	'
	Bicarbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	282	
	Carbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
	Chloride	mg/L		8/12/2019 1620h	E300.0	1.00	62.4	
	Fluoride	mg/L		8/12/2019 2104h	E300.0	0.100	0.128	
	Ion Balance	%		7/31/2019 1016h	Calc.	-100	1.58	
	Nitrate/Nitrite (as N)	mg/L		7/22/2019 1343h	E353.2	0.100	0.185	
	Sulfate	mg/L		8/12/2019 1423h	E300.0	150	3,170	
	Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		73.3	
	Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		75.7	
Total Dissolved Solids	mg/L		7/22/2019 1240h	SM2540C	20.0	4,400		
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.896		
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		4,910		

' - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-018F
Client Sample ID: MW-36_07162019
Collection Date: 7/16/2019 1340h
Received Date: 7/19/2019 1130h Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1844h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	59.7	50.00	119	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.1	50.00	104	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.7	50.00	99.3	72-135	
Surr: Toluene-d8		2037-26-5	49.5	50.00	98.9	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: White Mesa Mill GW

Client Sample ID: MW-36_07162019
Sample ID: 485412011
Matrix: Ground Water
Collect Date: 16-JUL-19 13:40
Receive Date: 23-JUL-19
Collector: Client

Project: DNMI00100
Client ID: DNMI001

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		4.06	+/-0.618	0.951	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			97.2	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration
Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-014
Client Sample ID: MW-38_07182019
Collection Date: 7/18/2019 700h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1929h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2123h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1929h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1651h	E200.7	20.0	551	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1929h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1929h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1733h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2123h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/1/2019 2123h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1651h	E200.7	20.0	212	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1410h	E200.8	0.0100	< 0.0100	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1708h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1929h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1929h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/31/2019 1116h	E200.7	1.00	29.2	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1929h	E200.8	0.00500	0.169	
Silver	mg/L	7/30/2019 745h	8/1/2019 1929h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1651h	E200.7	20.0	465	
Thallium	mg/L	7/30/2019 745h	8/1/2019 2123h	E200.8	0.000500	< 0.000500	
Tin	mg/L	7/30/2019 745h	8/2/2019 1410h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/2/2019 1506h	E200.8	0.000300	0.00657	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1743h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1410h	E200.8	0.0100	< 0.0100	

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 web: www.awal-labs.com

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-014
Client Sample ID: MW-38_07182019
Collection Date: 7/18/2019 700h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1028h	E350.1	0.0500	< 0.0500	
Bicarbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	110	
Carbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/10/2019 2318h	E300.0	1.00	46.5	
Fluoride	mg/L		8/11/2019 222h	E300.0	0.100	0.746	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	0.534	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1320h	E353.2	0.100	14.6	
Sulfate	mg/L		8/10/2019 1958h	E300.0	150	2,950	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		65.2	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		65.9	
Total Dissolved Solids	mg/L		7/22/2019 1240h	SM2540C	20.0	4,070	
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.939	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		4,340	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-014F
Client Sample ID: MW-38_07182019
Collection Date: 7/18/2019 700h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1724h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross

Laboratory Director

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Jose Rocha

QA Officer

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	59.3	50.00	119	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.8	50.00	104	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.8	50.00	99.7	72-135	
Surr: Toluene-d8		2037-26-5	49.2	50.00	98.5	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

GEL LABORATORIES LLC

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Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: MW-38_07182019	Project: DNMI00100
Sample ID: 485412008	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 18-JUL-19 07:00	
Receive Date: 23-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		4.07	+/-0.622	0.946	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			96.9	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-015
Client Sample ID: MW-39_07172019
Collection Date: 7/17/2019 1100h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1933h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/1/2019 2126h	E200.8	0.000500	0.00464	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1933h	E200.8	0.000500	0.00265	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1653h	E200.7	20.0	511	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1933h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1933h	E200.8	0.0100	0.0715	
Copper	mg/L	7/30/2019 745h	8/2/2019 1736h	E200.8	0.0100	0.0312	
Iron	mg/L	7/30/2019 745h	8/1/2019 1955h	E200.8	1.00	15.2	
Lead	mg/L	7/30/2019 745h	8/1/2019 2126h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1653h	E200.7	20.0	219	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1414h	E200.8	0.0100	2.18	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1710h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1933h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1933h	E200.8	0.0200	0.0354	
Potassium	mg/L	7/30/2019 745h	7/31/2019 1118h	E200.7	1.00	14.0	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1933h	E200.8	0.00500	< 0.00500	
Silver	mg/L	7/30/2019 745h	8/1/2019 1933h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1653h	E200.7	20.0	555	
Thallium	mg/L	7/30/2019 745h	8/1/2019 2126h	E200.8	0.000500	0.00343	
Tin	mg/L	7/30/2019 745h	8/2/2019 1426h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/1/2019 2237h	E200.8	0.000300	0.0123	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1746h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1426h	E200.8	0.0100	0.248	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-015
Client Sample ID: MW-39_07172019
Collection Date: 7/17/2019 1100h
Received Date: 7/19/2019 1130h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1029h	E350.1	0.0500	0.319	
Bicarbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Carbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/10/2019 2335h	E300.0	1.00	41.3	
Fluoride	mg/L		8/11/2019 239h	E300.0	0.100	0.701	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	0.908	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1335h	E353.2	0.100	0.104	
Sulfate	mg/L		8/10/2019 2015h	E300.0	375	3,190	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		67.6	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		68.8	
Total Dissolved Solids	mg/L		7/22/2019 1240h	SM2540C	20.0	4,140	
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.912	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		4,550	

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e-mail: awal@awal-labs.com

web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-015F
Client Sample ID: MW-39_07172019
Collection Date: 7/17/2019 1100h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1744h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	56.9	50.00	114	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	48.6	50.00	97.2	80-152	
Surr: Dibromofluoromethane		1868-53-7	47.3	50.00	94.6	72-135	
Surr: Toluene-d8		2037-26-5	46.7	50.00	93.5	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: MW-39_07172019	Project: DNMI00100
Sample ID: 485412009	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 17-JUL-19 11:00	
Receive Date: 23-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		17.9	+/-1.47	0.997	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			86.9	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

- | | |
|---------------------------------------|--------------------------------|
| DF: Dilution Factor | Lc/LC: Critical Level |
| DL: Detection Limit | PF: Prep Factor |
| MDA: Minimum Detectable Activity | RL: Reporting Limit |
| MDC: Minimum Detectable Concentration | SQL: Sample Quantitation Limit |



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-016
Client Sample ID: MW-40_07162019
Collection Date: 7/16/2019 1445h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1936h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/2/2019 1739h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1936h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1655h	E200.7	20.0	526	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1936h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1936h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1739h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2138h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/2/2019 1739h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1655h	E200.7	20.0	219	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1417h	E200.8	0.0100	0.133	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1712h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1936h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1936h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/31/2019 1120h	E200.7	1.00	8.93	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1936h	E200.8	0.00500	0.189	
Silver	mg/L	7/30/2019 745h	8/1/2019 1936h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1655h	E200.7	20.0	364	
Thallium	mg/L	7/30/2019 745h	8/2/2019 1739h	E200.8	0.000500	< 0.000500	
Tin	mg/L	7/30/2019 745h	8/2/2019 1417h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/1/2019 2240h	E200.8	0.000300	0.0245	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1748h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1417h	E200.8	0.0100	< 0.0100	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-016
Client Sample ID: MW-40_07162019
Collection Date: 7/16/2019 1445h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

3440 South 700 West Salt Lake City, UT 84119	Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
	Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1029h	E350.1	0.0500	< 0.0500	
	Bicarbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	258	
	Carbonate (as CaCO ₃)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Phone: (801) 263-8686	Chloride	mg/L		8/12/2019 1653h	E300.0	1.00	42.7	
Toll Free: (888) 263-8686	Fluoride	mg/L		8/12/2019 2030h	E300.0	0.100	0.803	
Fax: (801) 263-8687	Ion Balance	%		7/31/2019 1016h	Calc.	-100	-0.228	
e-mail: awal@awal-labs.com	Nitrate/Nitrite (as N)	mg/L		7/22/2019 1327h	E353.2	0.100	2.78	
	Sulfate	mg/L		8/12/2019 1530h	E300.0	150	2,600	
web: www.awal-labs.com	Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		60.6	
	Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		60.3	
Kyle F. Gross Laboratory Director	Total Dissolved Solids	mg/L		7/22/2019 1240h	SM2540C	20.0	3,410	
	Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.870	
Jose Rocha QA Officer	Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		3,920	



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-016F
Client Sample ID: MW-40_07162019
Collection Date: 7/16/2019 1445h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/19/2019 1804h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	#
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	#
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	#
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	59.1	50.00	118	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.3	50.00	103	80-152	
Surr: Dibromofluoromethane		1868-53-7	50.0	50.00	100	72-135	
Surr: Toluene-d8		2037-26-5	49.5	50.00	98.9	80-124	

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
 Address : 225 Union Boulevard
 Suite 600
 Lakewood, Colorado 80228
 Contact: Ms. Kathy Weinel
 Project: White Mesa Mill GW

Client Sample ID: MW-40_07162019	Project: DNMI00100
Sample ID: 485412010	Client ID: DNMI001
Matrix: Ground Water	
Collect Date: 16-JUL-19 14:45	
Receive Date: 23-JUL-19	
Collector: Client	

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		5.24	+/-0.746	0.924	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			93.6	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-017
Client Sample ID: MW-65_07162019
Collection Date: 7/16/2019 1130h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Arsenic	mg/L	7/30/2019 745h	8/1/2019 1939h	E200.8	0.00500	< 0.00500	
Beryllium	mg/L	7/30/2019 745h	8/2/2019 1743h	E200.8	0.000500	< 0.000500	
Cadmium	mg/L	7/30/2019 745h	8/1/2019 1939h	E200.8	0.000500	< 0.000500	
Calcium	mg/L	7/30/2019 745h	7/30/2019 1657h	E200.7	20.0	111	
Chromium	mg/L	7/30/2019 745h	8/1/2019 1939h	E200.8	0.0250	< 0.0250	
Cobalt	mg/L	7/30/2019 745h	8/1/2019 1939h	E200.8	0.0100	< 0.0100	
Copper	mg/L	7/30/2019 745h	8/2/2019 1743h	E200.8	0.0100	< 0.0100	
Iron	mg/L	7/30/2019 745h	8/1/2019 2141h	E200.8	0.0300	< 0.0300	
Lead	mg/L	7/30/2019 745h	8/2/2019 1743h	E200.8	0.00100	< 0.00100	
Magnesium	mg/L	7/30/2019 745h	7/30/2019 1657h	E200.7	20.0	36.6	
Manganese	mg/L	7/30/2019 745h	8/2/2019 1420h	E200.8	0.0100	0.194	
Mercury	mg/L	7/30/2019 1205h	7/30/2019 1714h	E245.1	0.000500	< 0.000500	
Molybdenum	mg/L	7/30/2019 745h	8/1/2019 1939h	E200.8	0.0100	< 0.0100	
Nickel	mg/L	7/30/2019 745h	8/1/2019 1939h	E200.8	0.0200	< 0.0200	
Potassium	mg/L	7/30/2019 745h	7/31/2019 1122h	E200.7	1.00	7.59	
Selenium	mg/L	7/30/2019 745h	8/1/2019 1939h	E200.8	0.00500	< 0.00500	
Silver	mg/L	7/30/2019 745h	8/1/2019 1939h	E200.8	0.0100	< 0.0100	
Sodium	mg/L	7/30/2019 745h	7/30/2019 1657h	E200.7	20.0	627	
Thallium	mg/L	7/30/2019 745h	8/2/2019 1743h	E200.8	0.000500	< 0.000500	
Tin	mg/L	7/30/2019 745h	8/2/2019 1420h	E200.8	0.100	< 0.100	
Uranium	mg/L	7/30/2019 745h	8/1/2019 2244h	E200.8	0.000300	0.00110	
Vanadium	mg/L	7/30/2019 745h	7/30/2019 1750h	E200.7	0.0150	< 0.0150	
Zinc	mg/L	7/30/2019 745h	8/2/2019 1420h	E200.8	0.0100	< 0.0100	

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Sample ID: 1907511-017
Client Sample ID: MW-65_07162019
Collection Date: 7/16/2019 1130h
Received Date: 7/19/2019 1130h

Contact: Tanner Holliday

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	7/28/2019 1400h	7/29/2019 1030h	E350.1	0.0500	0.828	
Bicarbonate (as CaCO3)	mg/L		7/23/2019 600h	SM2320B	1.00	324	
Carbonate (as CaCO3)	mg/L		7/23/2019 600h	SM2320B	1.00	< 1.00	
Chloride	mg/L		8/12/2019 1636h	E300.0	2.00	48.5	
Fluoride	mg/L		8/12/2019 2047h	E300.0	0.100	0.288	
Ion Balance	%		7/31/2019 1016h	Calc.	-100	-0.798	
Nitrate/Nitrite (as N)	mg/L		7/22/2019 1336h	E353.2	0.100	0.555	
Sulfate	mg/L		8/12/2019 1440h	E300.0	150	1,380	
Total Anions, Measured	meq/L		7/31/2019 1016h	Calc.		36.6	
Total Cations, Measured	meq/L		7/31/2019 1016h	Calc.		36.0	
Total Dissolved Solids	mg/L		7/22/2019 1240h	SM2540C	20.0	2,060	
Total Dissolved Solids Ratio, Measured/Calculated			7/31/2019 1016h	Calc.		0.858	
Total Dissolved Solids, Calculated	mg/L		7/31/2019 1016h	Calc.		2,410	

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Laboratory Director

Jose Rocha

QA Officer

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: July 30, 2019

Company : Energy Fuels Resources (USA), Inc.
Address : 225 Union Boulevard
Suite 600
Lakewood, Colorado 80228
Contact: Ms. Kathy Weinel
Project: White Mesa Mill GW

Client Sample ID: MW-65_07162019 Project: DNMI00100
Sample ID: 485412012 Client ID: DNMI001
Matrix: Ground Water
Collect Date: 16-JUL-19 11:30
Receive Date: 23-JUL-19
Collector: Client

Parameter	Qualifier	Result	Uncertainty	MDC	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Rad Gas Flow Proportional Counting													
GFPC, Total Alpha Radium, Liquid "As Received"													
Gross Radium Alpha		1.20	+/-0.411	0.932	1.00	pCi/L			JXK3	07/26/19	1559	1900445	1

The following Analytical Methods were performed:

Method	Description	Analyst Comments
	EPA 903.0	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
Barium Carrier	GFPC, Total Alpha Radium, Liquid "As Received"			92.1	(25%-125%)

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

SRL = Sample Reporting Limit. For metals analysis only. When the sample is U qualified and ND, the SRL column reports the value which is the greater of either the adjusted MDL or the CRDL.

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.

Contact: Tanner Holliday

Project: Q3 Ground Water 2019

Lab Sample ID: 1907511-019A

Client Sample ID: Trip Blank

Collection Date: 7/15/2019 1145h

Received Date: 7/19/2019 1130h

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 7/22/2019 1614h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	59.6	50.00	119	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	48.1	50.00	96.2	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.5	50.00	99.0	72-135	
Surr: Toluene-d8		2037-26-5	47.8	50.00	95.7	80-124	



Tanner Holliday
Energy Fuels Resources, Inc.
6425 South Hwy 191
Blanding, UT 84511
TEL: (435) 678-2221

RE: Q3 Ground Water 2019

Dear Tanner Holliday:

Lab Set ID: 1907511

3440 South 700 West

Salt Lake City, UT 84119

American West Analytical Laboratories received sample(s) on 7/19/2019 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

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web: www.awal-labs.com

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer

8/22/2019: This is a revision to a report originally issued 8/15/2019. Information herein supersedes that of the previously issued reports. Pages 1-5, 37-48, and 68-73 have been revised. The test code and method have been corrected.

10/22/2019: Pages 1 and 40 have been revised. The qualifiers and footnotes have been updated.

Thank You,

Approved by:

Digitally signed by Jose G. Rocha
DN: cn=Jose G. Rocha,
o=American West Analytical
Laboratories, ou=UT00031,
email=jose@awal-labs.com,
c=US
Date: 2019.10.22 11:32:09
-06'00'

Jose G.
Rocha

Laboratory Director or designee



SAMPLE SUMMARY

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Set ID: 1907511
Date Received: 7/19/2019 1130h

Contact: Tanner Holliday

3440 South 700 West
Salt Lake City, UT 84119

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1907511-001A	MW-05_07112019	7/11/2019 1020h	Aqueous	ICPMS Metals, Dissolved
1907511-002A	MW-12_07112019	7/11/2019 1300h	Aqueous	ICPMS Metals, Dissolved
1907511-003A	MW-24_07182019	7/18/2019 735h	Aqueous	ICPMS Metals, Dissolved
1907511-003B	MW-24_07182019	7/18/2019 735h	Aqueous	Anions, E300.0
1907511-004A	MW-27_07122019	7/12/2019 1035h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-005A	MW-28_07122019	7/12/2019 1050h	Aqueous	ICPMS Metals, Dissolved
1907511-007A	MW-35_07112019	7/11/2019 1345h	Aqueous	Ammonia, Aqueous
1907511-008A	MW-11_07162019	7/16/2019 1130h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-008A	MW-11_07162019	7/16/2019 1130h	Aqueous	Ammonia, Aqueous
1907511-008B	MW-11_07162019	7/16/2019 1130h	Aqueous	Anions, E300.0
1907511-008C	MW-11_07162019	7/16/2019 1130h	Aqueous	Total Dissolved Solids, A2540C
1907511-008D	MW-11_07162019	7/16/2019 1130h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-008E	MW-11_07162019	7/16/2019 1130h	Aqueous	ICPMS Metals, Dissolved
1907511-008E	MW-11_07162019	7/16/2019 1130h	Aqueous	Mercury, Drinking Water Dissolved
1907511-008E	MW-11_07162019	7/16/2019 1130h	Aqueous	ICP Metals, Dissolved
1907511-008E	MW-11_07162019	7/16/2019 1130h	Aqueous	Ion Balance
1907511-008F	MW-11_07162019	7/16/2019 1130h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-009A	MW-14_07152019	7/15/2019 1445h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-009A	MW-14_07152019	7/15/2019 1445h	Aqueous	Ammonia, Aqueous
1907511-009B	MW-14_07152019	7/15/2019 1445h	Aqueous	Anions, E300.0
1907511-009C	MW-14_07152019	7/15/2019 1445h	Aqueous	Total Dissolved Solids, A2540C
1907511-009D	MW-14_07152019	7/15/2019 1445h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-009E	MW-14_07152019	7/15/2019 1445h	Aqueous	ICP Metals, Dissolved
1907511-009E	MW-14_07152019	7/15/2019 1445h	Aqueous	ICPMS Metals, Dissolved
1907511-009E	MW-14_07152019	7/15/2019 1445h	Aqueous	Mercury, Drinking Water Dissolved
1907511-009E	MW-14_07152019	7/15/2019 1445h	Aqueous	Ion Balance
1907511-009F	MW-14_07152019	7/15/2019 1445h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-010A	MW-25_07152019	7/15/2019 1145h	Aqueous	Ammonia, Aqueous
1907511-010A	MW-25_07152019	7/15/2019 1145h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-010B	MW-25_07152019	7/15/2019 1145h	Aqueous	Anions, E300.0



Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Set ID: 1907511
Date Received: 7/19/2019 1130h

Contact: Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1907511-010C	MW-25_07152019	7/15/2019 1145h	Aqueous	Total Dissolved Solids, A2540C
1907511-010D	MW-25_07152019	7/15/2019 1145h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-010E	MW-25_07152019	7/15/2019 1145h	Aqueous	ICP Metals, Dissolved
1907511-010E	MW-25_07152019	7/15/2019 1145h	Aqueous	ICPMS Metals, Dissolved
1907511-010E	MW-25_07152019	7/15/2019 1145h	Aqueous	Mercury, Drinking Water Dissolved
1907511-010E	MW-25_07152019	7/15/2019 1145h	Aqueous	Ion Balance
1907511-010F	MW-25_07152019	7/15/2019 1145h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-011A	MW-26_07162019	7/16/2019 900h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-011A	MW-26_07162019	7/16/2019 900h	Aqueous	Ammonia, Aqueous
1907511-011B	MW-26_07162019	7/16/2019 900h	Aqueous	Anions, E300.0
1907511-011C	MW-26_07162019	7/16/2019 900h	Aqueous	Total Dissolved Solids, A2540C
1907511-011D	MW-26_07162019	7/16/2019 900h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-011E	MW-26_07162019	7/16/2019 900h	Aqueous	ICPMS Metals, Dissolved
1907511-011E	MW-26_07162019	7/16/2019 900h	Aqueous	Mercury, Drinking Water Dissolved
1907511-011E	MW-26_07162019	7/16/2019 900h	Aqueous	ICP Metals, Dissolved
1907511-011E	MW-26_07162019	7/16/2019 900h	Aqueous	Ion Balance
1907511-011F	MW-26_07162019	7/16/2019 900h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-012A	MW-30_07162019	7/16/2019 1025h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-012A	MW-30_07162019	7/16/2019 1025h	Aqueous	Ammonia, Aqueous
1907511-012B	MW-30_07162019	7/16/2019 1025h	Aqueous	Anions, E300.0
1907511-012C	MW-30_07162019	7/16/2019 1025h	Aqueous	Total Dissolved Solids, A2540C
1907511-012D	MW-30_07162019	7/16/2019 1025h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-012E	MW-30_07162019	7/16/2019 1025h	Aqueous	ICP Metals, Dissolved
1907511-012E	MW-30_07162019	7/16/2019 1025h	Aqueous	ICPMS Metals, Dissolved
1907511-012E	MW-30_07162019	7/16/2019 1025h	Aqueous	Mercury, Drinking Water Dissolved
1907511-012E	MW-30_07162019	7/16/2019 1025h	Aqueous	Ion Balance
1907511-012F	MW-30_07162019	7/16/2019 1025h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-013A	MW-31_07152019	7/15/2019 1340h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-013A	MW-31_07152019	7/15/2019 1340h	Aqueous	Ammonia, Aqueous
1907511-013B	MW-31_07152019	7/15/2019 1340h	Aqueous	Anions, E300.0

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Set ID: 1907511
Date Received: 7/19/2019 1130h

Contact: Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1907511-013C	MW-31_07152019	7/15/2019 1340h	Aqueous	Total Dissolved Solids, A2540C
1907511-013D	MW-31_07152019	7/15/2019 1340h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-013E	MW-31_07152019	7/15/2019 1340h	Aqueous	ICP Metals, Dissolved
1907511-013E	MW-31_07152019	7/15/2019 1340h	Aqueous	ICPMS Metals, Dissolved
1907511-013E	MW-31_07152019	7/15/2019 1340h	Aqueous	Mercury, Drinking Water Dissolved
1907511-013E	MW-31_07152019	7/15/2019 1340h	Aqueous	Ion Balance
1907511-013F	MW-31_07152019	7/15/2019 1340h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-014A	MW-38_07182019	7/18/2019 700h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-014A	MW-38_07182019	7/18/2019 700h	Aqueous	Ammonia, Aqueous
1907511-014B	MW-38_07182019	7/18/2019 700h	Aqueous	Anions, E300.0
1907511-014C	MW-38_07182019	7/18/2019 700h	Aqueous	Total Dissolved Solids, A2540C
1907511-014D	MW-38_07182019	7/18/2019 700h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-014E	MW-38_07182019	7/18/2019 700h	Aqueous	ICP Metals, Dissolved
1907511-014E	MW-38_07182019	7/18/2019 700h	Aqueous	Ion Balance
1907511-014E	MW-38_07182019	7/18/2019 700h	Aqueous	ICPMS Metals, Dissolved
1907511-014E	MW-38_07182019	7/18/2019 700h	Aqueous	Mercury, Drinking Water Dissolved
1907511-014F	MW-38_07182019	7/18/2019 700h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-015A	MW-39_07172019	7/17/2019 1100h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-015A	MW-39_07172019	7/17/2019 1100h	Aqueous	Ammonia, Aqueous
1907511-015B	MW-39_07172019	7/17/2019 1100h	Aqueous	Anions, E300.0
1907511-015C	MW-39_07172019	7/17/2019 1100h	Aqueous	Total Dissolved Solids, A2540C
1907511-015D	MW-39_07172019	7/17/2019 1100h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-015E	MW-39_07172019	7/17/2019 1100h	Aqueous	ICP Metals, Dissolved
1907511-015E	MW-39_07172019	7/17/2019 1100h	Aqueous	ICPMS Metals, Dissolved
1907511-015E	MW-39_07172019	7/17/2019 1100h	Aqueous	Mercury, Drinking Water Dissolved
1907511-015E	MW-39_07172019	7/17/2019 1100h	Aqueous	Ion Balance
1907511-015F	MW-39_07172019	7/17/2019 1100h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-016A	MW-40_07162019	7/16/2019 1445h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-016A	MW-40_07162019	7/16/2019 1445h	Aqueous	Ammonia, Aqueous
1907511-016B	MW-40_07162019	7/16/2019 1445h	Aqueous	Anions, E300.0

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Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Set ID: 1907511
Date Received: 7/19/2019 1130h

Contact: Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1907511-016C	MW-40_07162019	7/16/2019 1445h	Aqueous	Total Dissolved Solids, A2540C
1907511-016D	MW-40_07162019	7/16/2019 1445h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-016E	MW-40_07162019	7/16/2019 1445h	Aqueous	Ion Balance
1907511-016E	MW-40_07162019	7/16/2019 1445h	Aqueous	ICP Metals, Dissolved
1907511-016E	MW-40_07162019	7/16/2019 1445h	Aqueous	ICPMS Metals, Dissolved
1907511-016E	MW-40_07162019	7/16/2019 1445h	Aqueous	Mercury, Drinking Water Dissolved
1907511-016F	MW-40_07162019	7/16/2019 1445h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-017A	MW-65_07162019	7/16/2019 1130h	Aqueous	Ammonia, Aqueous
1907511-017A	MW-65_07162019	7/16/2019 1130h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-017B	MW-65_07162019	7/16/2019 1130h	Aqueous	Anions, E300.0
1907511-017C	MW-65_07162019	7/16/2019 1130h	Aqueous	Total Dissolved Solids, A2540C
1907511-017D	MW-65_07162019	7/16/2019 1130h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-017E	MW-65_07162019	7/16/2019 1130h	Aqueous	ICP Metals, Dissolved
1907511-017E	MW-65_07162019	7/16/2019 1130h	Aqueous	Ion Balance
1907511-017E	MW-65_07162019	7/16/2019 1130h	Aqueous	ICPMS Metals, Dissolved
1907511-017E	MW-65_07162019	7/16/2019 1130h	Aqueous	Mercury, Drinking Water Dissolved
1907511-017F	MW-65_07162019	7/16/2019 1130h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-018A	MW-36_07162019	7/16/2019 1340h	Aqueous	Nitrite/Nitrate (as N), E353.2
1907511-018A	MW-36_07162019	7/16/2019 1340h	Aqueous	Ammonia, Aqueous
1907511-018B	MW-36_07162019	7/16/2019 1340h	Aqueous	Anions, E300.0
1907511-018C	MW-36_07162019	7/16/2019 1340h	Aqueous	Total Dissolved Solids, A2540C
1907511-018D	MW-36_07162019	7/16/2019 1340h	Aqueous	Alkalinity/ Bicarbonate/ Carbonate, Low Level
1907511-018E	MW-36_07162019	7/16/2019 1340h	Aqueous	ICP Metals, Dissolved
1907511-018E	MW-36_07162019	7/16/2019 1340h	Aqueous	ICPMS Metals, Dissolved
1907511-018E	MW-36_07162019	7/16/2019 1340h	Aqueous	Mercury, Drinking Water Dissolved
1907511-018E	MW-36_07162019	7/16/2019 1340h	Aqueous	Ion Balance
1907511-018F	MW-36_07162019	7/16/2019 1340h	Aqueous	VOA by GC/MS Method 8260C/5030C
1907511-019A	Trip Blank	7/15/2019 1145h	Aqueous	VOA by GC/MS Method 8260C/5030C



Inorganic Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Tanner Holliday
Project: Q3 Ground Water 2019
Lab Set ID: 1907511

3440 South 700 West
 Salt Lake City, UT 84119

Sample Receipt Information:

Date of Receipt: 7/19/2019
Date(s) of Collection: 7/11-7/18/2019
Sample Condition: Intact
C-O-C Discrepancies: None

Holding Time and Preservation Requirements: The analysis and preparation of all samples were performed within the method holding times. All samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD:

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1907511-007A	Ammonia	MS/MSD	Sample matrix interference
1907511-008E	Sodium	MS/MSD	High analyte concentration
1907511-018A	Ammonia	MS/MSD	Sample matrix interference

Duplicate (DUP): The parameters that required a duplicate analysis had RPDs within the control limits, with the following exceptions: the RPD for Total Dissolved Solids on sample 1907511-008C was outside of the control limits due to suspected sample non-homogeneity or sample matrix interference.

Corrective Action: None required.



American West
ANALYTICAL LABORATORIES

Volatile Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Tanner Holliday
Project: Q3 Ground Water 2019
Lab Set ID: 1907511

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Sample Receipt Information:

Date of Receipt: 7/19/2019
Date(s) of Collection: 7/11-7/18/2019
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8260C/5030C
Analysis: Volatile Organic Compounds

General Set Comments: Multiple target analytes were observed above reporting limits.

Holding Time and Preservation Requirements: All samples were received in appropriate containers and properly preserved. The analysis and preparation of all samples were performed within the method holding times following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met, with CCV exceptions noted on the reports. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks (MBs): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCSs): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions: the MSD percent recovery and RPD for 2-Butanone on sample 1907511-008F was outside of the control limits due to suspected sample non-homogeneity.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-64143													
Date Analyzed:		07/30/2019 1625h											
Test Code:		200.7-DIS											
Date Prepared:		07/30/2019 745h											
Calcium	10.8	mg/L	E200.7	0.102	1.00	10.00	0	108	85 - 115				
Magnesium	11.2	mg/L	E200.7	0.139	1.00	10.00	0	112	85 - 115				
Potassium	11.1	mg/L	E200.7	0.114	1.00	10.00	0	111	85 - 115				
Sodium	10.4	mg/L	E200.7	0.306	1.00	10.00	0	104	85 - 115				
Vanadium	0.212	mg/L	E200.7	0.00167	0.00500	0.2000	0	106	85 - 115				
Lab Sample ID: LCS-64144													
Date Analyzed:		08/01/2019 1840h											
Test Code:		200.8-DIS											
Date Prepared:		07/30/2019 745h											
Arsenic	0.200	mg/L	E200.8	0.000298	0.00200	0.2000	0	100	85 - 115				
Beryllium	0.206	mg/L	E200.8	0.000198	0.00200	0.2000	0	103	85 - 115				
Cadmium	0.199	mg/L	E200.8	0.0000858	0.000500	0.2000	0	99.5	85 - 115				
Chromium	0.200	mg/L	E200.8	0.00191	0.00200	0.2000	0	100	85 - 115				
Cobalt	0.194	mg/L	E200.8	0.000300	0.00400	0.2000	0	97.0	85 - 115				
Iron	0.988	mg/L	E200.8	0.0496	0.100	1.000	0	98.8	85 - 115				
Lead	0.199	mg/L	E200.8	0.000448	0.00200	0.2000	0	99.6	85 - 115				
Molybdenum	0.204	mg/L	E200.8	0.000652	0.00200	0.2000	0	102	85 - 115				
Nickel	0.196	mg/L	E200.8	0.00148	0.00200	0.2000	0	98.1	85 - 115				
Selenium	0.199	mg/L	E200.8	0.000574	0.00200	0.2000	0	99.6	85 - 115				
Silver	0.195	mg/L	E200.8	0.000232	0.00200	0.2000	0	97.4	85 - 115				
Thallium	0.189	mg/L	E200.8	0.000154	0.00200	0.2000	0	94.7	85 - 115				
Uranium	0.206	mg/L	E200.8	0.000176	0.00200	0.2000	0	103	85 - 115				
Zinc	0.987	mg/L	E200.8	0.00418	0.00600	1.000	0	98.7	85 - 115				
Lab Sample ID: LCS-64144													
Date Analyzed:		08/02/2019 1330h											
Test Code:		200.8-DIS											
Date Prepared:		07/30/2019 745h											
Manganese	0.203	mg/L	E200.8	0.00108	0.00200	0.2000	0	101	85 - 115				
Tin	1.00	mg/L	E200.8	0.00116	0.00400	1.000	0	100	85 - 115				



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-64144	Date Analyzed: 08/02/2019 1330h												
Test Code: 200.8-DIS	Date Prepared: 07/30/2019 745h												
Zinc	1.00	mg/L	E200.8	0.00418	0.00600	1.000	0	100	85 - 115				
Lab Sample ID: LCS-64144	Date Analyzed: 08/02/2019 1656h												
Test Code: 200.8-DIS	Date Prepared: 07/30/2019 745h												
Copper	0.198	mg/L	E200.8	0.00282	0.00200	0.2000	0	99.0	85 - 115				
Lab Sample ID: LCS-64147	Date Analyzed: 07/30/2019 1641h												
Test Code: HG-DW-DIS-245.1	Date Prepared: 07/30/2019 1205h												
Mercury	0.00336	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	101	85 - 115				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-64143													
Date Analyzed:		07/30/2019 1623h											
Test Code:		200.7-DIS											
Date Prepared:		07/30/2019 745h											
Calcium	< 1.00	mg/L	E200.7	0.102	1.00								
Magnesium	< 1.00	mg/L	E200.7	0.139	1.00								
Potassium	< 1.00	mg/L	E200.7	0.114	1.00								
Sodium	< 1.00	mg/L	E200.7	0.306	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00167	0.00500								
Lab Sample ID: MB-FILTER-64062													
Date Analyzed:		07/30/2019 1703h											
Test Code:		200.7-DIS											
Date Prepared:		07/30/2019 745h											
Calcium	< 1.00	mg/L	E200.7	0.102	1.00								
Magnesium	< 1.00	mg/L	E200.7	0.139	1.00								
Potassium	< 1.00	mg/L	E200.7	0.114	1.00								
Sodium	< 1.00	mg/L	E200.7	0.306	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00167	0.00500								
Lab Sample ID: MB-FILTER-64002													
Date Analyzed:		07/30/2019 1705h											
Test Code:		200.7-DIS											
Date Prepared:		07/30/2019 745h											
Calcium	< 1.00	mg/L	E200.7	0.102	1.00								
Magnesium	< 1.00	mg/L	E200.7	0.139	1.00								
Potassium	< 1.00	mg/L	E200.7	0.114	1.00								
Sodium	< 1.00	mg/L	E200.7	0.306	1.00								
Vanadium	< 0.00500	mg/L	E200.7	0.00167	0.00500								
Lab Sample ID: MB-64144													
Date Analyzed:		08/01/2019 1836h											
Test Code:		200.8-DIS											
Date Prepared:		07/30/2019 745h											
Arsenic	< 0.00200	mg/L	E200.8	0.000298	0.00200								
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Chromium	< 0.00200	mg/L	E200.8	0.00191	0.00200								
Cobalt	< 0.00400	mg/L	E200.8	0.000300	0.00400								



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-64144		Date Analyzed: 08/01/2019 1836h											
Test Code: 200.8-DIS		Date Prepared: 07/30/2019 745h											
Molybdenum	< 0.00200	mg/L	E200.8	0.000652	0.00200								
Nickel	< 0.00200	mg/L	E200.8	0.00148	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Silver	< 0.00200	mg/L	E200.8	0.000232	0.00200								
Lab Sample ID: MB-FILTER-64062		Date Analyzed: 08/01/2019 2020h											
Test Code: 200.8-DIS		Date Prepared: 07/30/2019 745h											
Arsenic	< 0.00200	mg/L	E200.8	0.000298	0.00200								
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Chromium	< 0.00200	mg/L	E200.8	0.00191	0.00200								
Iron	< 0.100	mg/L	E200.8	0.0496	0.100								
Lead	< 0.00200	mg/L	E200.8	0.000448	0.00200								
Nickel	< 0.00200	mg/L	E200.8	0.00148	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Silver	< 0.00200	mg/L	E200.8	0.000232	0.00200								
Lab Sample ID: MB-FILTER-64002		Date Analyzed: 08/01/2019 2023h											
Test Code: 200.8-DIS		Date Prepared: 07/30/2019 745h											
Arsenic	< 0.00200	mg/L	E200.8	0.000298	0.00200								
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Chromium	< 0.00200	mg/L	E200.8	0.00191	0.00200								
Lead	< 0.00200	mg/L	E200.8	0.000448	0.00200								
Nickel	< 0.00200	mg/L	E200.8	0.00148	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Lab Sample ID: MB-64144		Date Analyzed: 08/01/2019 2058h											
Test Code: 200.8-DIS		Date Prepared: 07/30/2019 745h											
Beryllium	< 0.000200	mg/L	E200.8	0.0000198	0.000200								



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.

Lab Set ID: 1907511

Project: Q3 Ground Water 2019

Contact: Tanner Holliday

Dept: ME

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-64144	Date Analyzed:	08/01/2019	2058h										
Test Code:	200.8-DIS	Date Prepared:	07/30/2019	745h									
Iron	< 0.0100	mg/L	E200.8	0.00496	0.0100								
Lead	< 0.000200	mg/L	E200.8	0.0000448	0.000200								
Thallium	< 0.000200	mg/L	E200.8	0.0000154	0.000200								
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								
Lab Sample ID: MB-64144	Date Analyzed:	08/02/2019	1327h										
Test Code:	200.8-DIS	Date Prepared:	07/30/2019	745h									
Manganese	< 0.00200	mg/L	E200.8	0.00108	0.00200								
Tin	< 0.00400	mg/L	E200.8	0.00116	0.00400								
Lab Sample ID: MB-64144	Date Analyzed:	08/02/2019	1534h										
Test Code:	200.8-DIS	Date Prepared:	07/30/2019	745h									
Zinc	< 0.00150	mg/L	E200.8	0.00105	0.00150								
Lab Sample ID: MB-64144	Date Analyzed:	08/02/2019	1653h										
Test Code:	200.8-DIS	Date Prepared:	07/30/2019	745h									
Copper	< 0.00200	mg/L	E200.8	0.00282	0.00200								
Lab Sample ID: MB-FILTER-64002	Date Analyzed:	08/03/2019	1341h										
Test Code:	200.8-DIS	Date Prepared:	07/30/2019	745h									
Copper	< 0.00200	mg/L	E200.8	0.00282	0.00200								
Manganese	< 0.00200	mg/L	E200.8	0.00108	0.00200								
Zinc	< 0.00600	mg/L	E200.8	0.00418	0.00600								
Lab Sample ID: MB-FILTER-64062	Date Analyzed:	08/03/2019	1403h										
Test Code:	200.8-DIS	Date Prepared:	07/30/2019	745h									
Copper	< 0.00200	mg/L	E200.8	0.00282	0.00200								
Zinc	< 0.00600	mg/L	E200.8	0.00418	0.00600								



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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-64147	Date Analyzed:	07/30/2019	1639h										
Test Code: HG-DW-DIS-245.1	Date Prepared:	07/30/2019	1205h										
Mercury	< 0.0000900	mg/L	E245.1	0.0000396	0.0000900								



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-008EMS													
Date Analyzed:		07/30/2019 1629h											
Test Code:		200.7-DIS											
Date Prepared:		07/30/2019 745h											
Calcium	123	mg/L	E200.7	2.04	20.0	10.00	113	96.8	70 - 130				
Magnesium	49.5	mg/L	E200.7	2.78	20.0	10.00	38	115	70 - 130				
Sodium	642	mg/L	E200.7	6.12	20.0	10.00	641	16.7	70 - 130				2
Lab Sample ID: 1907511-008EMS													
Date Analyzed:		07/30/2019 1721h											
Test Code:		200.7-DIS											
Date Prepared:		07/30/2019 745h											
Potassium	19.5	mg/L	E200.7	0.114	1.00	10.00	8.02	114	70 - 130				
Vanadium	0.213	mg/L	E200.7	0.00167	0.00500	0.2000	0	106	70 - 130				
Lab Sample ID: 1907511-008EMS													
Date Analyzed:		08/01/2019 1858h											
Test Code:		200.8-DIS											
Date Prepared:		07/30/2019 745h											
Arsenic	0.213	mg/L	E200.8	0.000298	0.00200	0.2000	0.000397	106	75 - 125				
Beryllium	0.193	mg/L	E200.8	0.000198	0.00200	0.2000	0	96.7	75 - 125				
Cadmium	0.200	mg/L	E200.8	0.0000858	0.000500	0.2000	0	99.9	75 - 125				
Chromium	0.201	mg/L	E200.8	0.00191	0.00200	0.2000	0	101	75 - 125				
Cobalt	0.196	mg/L	E200.8	0.000300	0.00400	0.2000	0.000541	97.8	75 - 125				
Iron	1.01	mg/L	E200.8	0.0496	0.100	1.000	0	101	75 - 125				
Lead	0.194	mg/L	E200.8	0.000448	0.00200	0.2000	0	97.2	75 - 125				
Molybdenum	0.213	mg/L	E200.8	0.000652	0.00200	0.2000	0.00224	105	75 - 125				
Nickel	0.199	mg/L	E200.8	0.00148	0.00200	0.2000	0	99.6	75 - 125				
Selenium	0.202	mg/L	E200.8	0.000574	0.00200	0.2000	0.00277	99.6	75 - 125				
Silver	0.190	mg/L	E200.8	0.000232	0.00200	0.2000	0	95.0	75 - 125				
Thallium	0.186	mg/L	E200.8	0.000154	0.00200	0.2000	0	92.8	75 - 125				
Uranium	0.206	mg/L	E200.8	0.000176	0.00200	0.2000	0	103	75 - 125				
Lab Sample ID: 1907511-008EMS													
Date Analyzed:		08/02/2019 1336h											
Test Code:		200.8-DIS											
Date Prepared:		07/30/2019 745h											
Manganese	0.391	mg/L	E200.8	0.00108	0.00200	0.2000	0.199	96.0	75 - 125				



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-008EMS	Date Analyzed: 08/02/2019 1336h												
Test Code: 200.8-DIS	Date Prepared: 07/30/2019 745h												
Tin	1.04	mg/L	E200.8	0.00116	0.00400	1.000	0	104	75 - 125				
Zinc	1.01	mg/L	E200.8	0.00418	0.00600	1.000	0	101	75 - 125				
Lab Sample ID: 1907511-008EMS	Date Analyzed: 08/02/2019 1702h												
Test Code: 200.8-DIS	Date Prepared: 07/30/2019 745h												
Copper	0.195	mg/L	E200.8	0.00282	0.00200	0.2000	0	97.7	75 - 125				
Lab Sample ID: 1907511-009EMS	Date Analyzed: 07/30/2019 1651h												
Test Code: HG-DW-DIS-245.1	Date Prepared: 07/30/2019 1205h												
Mercury	0.00320	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	96.1	85 - 115				

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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Laboratory Director

Jose Rocha
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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.

Lab Set ID: 1907511

Project: Q3 Ground Water 2019

Contact: Tanner Holliday

Dept: ME

QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-008EMSD													
Date Analyzed: 07/30/2019 1631h													
Test Code: 200.7-DIS													
Date Prepared: 07/30/2019 745h													
Calcium	123	mg/L	E200.7	2.04	20.0	10.00	113	97.5	70 - 130	123	0.0594	20	
Magnesium	49.2	mg/L	E200.7	2.78	20.0	10.00	38	112	70 - 130	49.5	0.613	20	
Sodium	641	mg/L	E200.7	6.12	20.0	10.00	641	1.87	70 - 130	642	0.231	20	2
Lab Sample ID: 1907511-008EMSD													
Date Analyzed: 07/30/2019 1723h													
Test Code: 200.7-DIS													
Date Prepared: 07/30/2019 745h													
Potassium	19.2	mg/L	E200.7	0.114	1.00	10.00	8.02	112	70 - 130	19.5	1.39	20	
Vanadium	0.207	mg/L	E200.7	0.00167	0.00500	0.2000	0	103	70 - 130	0.213	2.73	20	
Lab Sample ID: 1907511-008EMSD													
Date Analyzed: 08/01/2019 1901h													
Test Code: 200.8-DIS													
Date Prepared: 07/30/2019 745h													
Arsenic	0.205	mg/L	E200.8	0.000298	0.00200	0.2000	0.000397	102	75 - 125	0.213	3.63	20	
Beryllium	0.188	mg/L	E200.8	0.000198	0.00200	0.2000	0	94.2	75 - 125	0.193	2.61	20	
Cadmium	0.195	mg/L	E200.8	0.0000858	0.000500	0.2000	0	97.7	75 - 125	0.2	2.20	20	
Chromium	0.203	mg/L	E200.8	0.00191	0.00200	0.2000	0	101	75 - 125	0.201	0.714	20	
Cobalt	0.195	mg/L	E200.8	0.000300	0.00400	0.2000	0.000541	97.1	75 - 125	0.196	0.645	20	
Iron	1.00	mg/L	E200.8	0.0496	0.100	1.000	0	100	75 - 125	1.01	0.850	20	
Lead	0.193	mg/L	E200.8	0.000448	0.00200	0.2000	0	96.7	75 - 125	0.194	0.514	20	
Molybdenum	0.209	mg/L	E200.8	0.000652	0.00200	0.2000	0.00224	103	75 - 125	0.213	1.90	20	
Nickel	0.200	mg/L	E200.8	0.00148	0.00200	0.2000	0	100	75 - 125	0.199	0.499	20	
Selenium	0.202	mg/L	E200.8	0.000574	0.00200	0.2000	0.00277	99.5	75 - 125	0.202	0.0143	20	
Silver	0.187	mg/L	E200.8	0.000232	0.00200	0.2000	0	93.6	75 - 125	0.19	1.47	20	
Thallium	0.183	mg/L	E200.8	0.000154	0.00200	0.2000	0	91.7	75 - 125	0.186	1.13	20	
Uranium	0.204	mg/L	E200.8	0.000176	0.00200	0.2000	0	102	75 - 125	0.206	0.892	20	
Lab Sample ID: 1907511-008EMSD													
Date Analyzed: 08/02/2019 1339h													
Test Code: 200.8-DIS													
Date Prepared: 07/30/2019 745h													
Manganese	0.385	mg/L	E200.8	0.00108	0.00200	0.2000	0.199	92.9	75 - 125	0.391	1.63	20	



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QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-008EMSD		Date Analyzed:	08/02/2019 1339h										
Test Code: 200.8-DIS		Date Prepared:	07/30/2019 745h										
Tin	1.02	mg/L	E200.8	0.00116	0.00400	1.000	0	102	75 - 125	1.04	2.02	20	
Zinc	0.992	mg/L	E200.8	0.00418	0.00600	1.000	0	99.2	75 - 125	1.01	1.84	20	
Lab Sample ID: 1907511-008EMSD		Date Analyzed:	08/02/2019 1705h										
Test Code: 200.8-DIS		Date Prepared:	07/30/2019 745h										
Copper	0.187	mg/L	E200.8	0.00282	0.00200	0.2000	0	93.5	75 - 125	0.195	4.39	20	
Lab Sample ID: 1907511-009EMSD		Date Analyzed:	07/30/2019 1653h										
Test Code: HG-DW-DIS-245.1		Date Prepared:	07/30/2019 1205h										
Mercury	0.00342	mg/L	E245.1	0.0000396	0.0000900	0.003330	0	103	85 - 115	0.0032	6.64	20	

² - Analyte concentration is too high for accurate matrix spike recovery and/or RPD.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: DUP

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-009CDUP Date Analyzed: 07/19/2019 1700h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	3,430	mg/L	SM2540C	16.0	20.0					3280	4.41	5	
Lab Sample ID: 1907511-008CDUP Date Analyzed: 07/22/2019 1240h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	2,160	mg/L	SM2540C	16.0	20.0					1890	13.4	5	@

@ - High RPD due to suspected sample non-homogeneity or matrix interference.



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-R129079 Date Analyzed: 08/10/2019 1441h													
Test Code: 300.0-W													
Chloride	5.33	mg/L	E300.0	0.0386	0.100	5.000	0	107	90 - 110				
Fluoride	5.19	mg/L	E300.0	0.0240	0.100	5.000	0	104	90 - 110				
Sulfate	5.27	mg/L	E300.0	0.174	0.750	5.000	0	105	90 - 110				
Lab Sample ID: LCS-R129112 Date Analyzed: 08/12/2019 1226h													
Test Code: 300.0-W													
Chloride	5.40	mg/L	E300.0	0.0386	0.100	5.000	0	108	90 - 110				
Fluoride	5.36	mg/L	E300.0	0.0240	0.100	5.000	0	107	90 - 110				
Sulfate	5.46	mg/L	E300.0	0.174	0.750	5.000	0	109	90 - 110				
Lab Sample ID: LCS-R128374 Date Analyzed: 07/23/2019 600h													
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO ₃)	249	mg/L	SM2320B	0.781	1.00	250.0	0	99.6	90 - 110				
Lab Sample ID: LCS-64103 Date Analyzed: 07/29/2019 1014h													
Test Code: NH3-W-350.1 Date Prepared: 07/28/2019 1400h													
Ammonia (as N)	9.11	mg/L	E350.1	0.0492	0.0500	10.00	0	91.1	90 - 110				
Lab Sample ID: LCS-R128348 Date Analyzed: 07/22/2019 1252h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.10	mg/L	E353.2	0.00363	0.0100	1.000	0	110	90 - 110				
Lab Sample ID: LCS-R128354 Date Analyzed: 07/19/2019 1700h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	218	mg/L	SM2540C	8.00	10.0	205.0	0	106	80 - 120				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-R128397		Date Analyzed: 07/22/2019 1240h											
Test Code: TDS-W-2540C													
Total Dissolved Solids	200	mg/L	SM2540C	8.00	10.0	205.0	0	97.6	80 - 120				



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.

Lab Set ID: 1907511

Project: Q3 Ground Water 2019

Contact: Tanner Holliday

Dept: WC

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-R129079													
Date Analyzed: 08/10/2019 1424h													
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.0240	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.174	0.750								
Lab Sample ID: MB-R129112													
Date Analyzed: 08/12/2019 1209h													
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Fluoride	< 0.100	mg/L	E300.0	0.0240	0.100								
Sulfate	< 0.750	mg/L	E300.0	0.174	0.750								
Lab Sample ID: MB-R128374													
Date Analyzed: 07/23/2019 600h													
Test Code: ALK-W-2320B-LL													
Bicarbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
Carbonate (as CaCO3)	< 1.00	mg/L	SM2320B	0.781	1.00								
Lab Sample ID: MB-64103													
Date Analyzed: 07/29/2019 1133h													
Test Code: NH3-W-350.1													
Date Prepared: 07/28/2019 1400h													
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
Lab Sample ID: MB-R128348													
Date Analyzed: 07/22/2019 1250h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								
Lab Sample ID: MB-R128354													
Date Analyzed: 07/19/2019 1700h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-R128397													
Date Analyzed: 07/22/2019 1240h													
Test Code: TDS-W-2540C													
Total Dissolved Solids	< 10.0	mg/L	SM2540C	8.00	10.0								



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-008BMS		Date Analyzed: 08/12/2019 1259h											
Test Code: 300.0-W													
Chloride	1,130	mg/L	E300.0	7.72	20.0	1,000	48.4	108	90 - 110				
Fluoride	1,090	mg/L	E300.0	4.80	20.0	1,000	0	109	90 - 110				
Sulfate	2,490	mg/L	E300.0	34.8	150	1,000	1410	108	90 - 110				
Lab Sample ID: 1907511-012BMS		Date Analyzed: 08/12/2019 1349h											
Test Code: 300.0-W													
Chloride	1,270	mg/L	E300.0	7.72	20.0	1,000	181	109	90 - 110				
Fluoride	1,070	mg/L	E300.0	4.80	20.0	1,000	0.405	107	90 - 110				
Sulfate	1,940	mg/L	E300.0	34.8	150	1,000	838	110	90 - 110				
Lab Sample ID: 1907511-008DMS		Date Analyzed: 07/23/2019 600h											
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,310	mg/L	SM2320B	0.781	1.00	1,000	308	100	80 - 120				
Lab Sample ID: 1907511-018DMS		Date Analyzed: 07/23/2019 600h											
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,280	mg/L	SM2320B	0.781	1.00	1,000	282	100	80 - 120				
Lab Sample ID: 1907511-007AMS		Date Analyzed: 07/29/2019 1016h											
Test Code: NH3-W-350.1		Date Prepared: 07/28/2019 1400h											
Ammonia (as N)	13.3	mg/L	E350.1	0.0492	0.0500	10.00	0.0935	132	90 - 110				
Lab Sample ID: 1907511-018AMS		Date Analyzed: 07/29/2019 1032h											
Test Code: NH3-W-350.1		Date Prepared: 07/28/2019 1400h											
Ammonia (as N)	13.4	mg/L	E350.1	0.0492	0.0500	10.00	0	134	90 - 110				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-004AMS Date Analyzed: 07/22/2019 1301h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	17.1	mg/L	E353.2	0.0363	0.100	10.00	6.5	106	90 - 110				
Lab Sample ID: 1907511-008AMS Date Analyzed: 07/22/2019 1311h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	11.4	mg/L	E353.2	0.0363	0.100	10.00	0.558	108	90 - 110				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-008BMSD		Date Analyzed: 08/12/2019 1316h											
Test Code: 300.0-W													
Chloride	1,140	mg/L	E300.0	7.72	20.0	1,000	48.4	109	90 - 110	1130	1.18	20	
Fluoride	1,070	mg/L	E300.0	4.80	20.0	1,000	0	107	90 - 110	1090	1.56	20	
Sulfate	2,490	mg/L	E300.0	34.8	150	1,000	1410	108	90 - 110	2490	0.240	20	
Lab Sample ID: 1907511-012BMSD		Date Analyzed: 08/12/2019 1406h											
Test Code: 300.0-W													
Chloride	1,260	mg/L	E300.0	7.72	20.0	1,000	181	108	90 - 110	1270	0.642	20	
Fluoride	1,060	mg/L	E300.0	4.80	20.0	1,000	0.405	106	90 - 110	1070	0.203	20	
Sulfate	1,920	mg/L	E300.0	34.8	150	1,000	838	108	90 - 110	1940	1.04	20	
Lab Sample ID: 1907511-008DMSD		Date Analyzed: 07/23/2019 600h											
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,300	mg/L	SM2320B	0.781	1.00	1,000	308	99.6	80 - 120	1310	0.306	10	
Lab Sample ID: 1907511-018DMSD		Date Analyzed: 07/23/2019 600h											
Test Code: ALK-W-2320B-LL													
Alkalinity (as CaCO3)	1,290	mg/L	SM2320B	0.781	1.00	1,000	282	100	80 - 120	1280	0.312	10	
Lab Sample ID: 1907511-007AMSD		Date Analyzed: 07/29/2019 1017h											
Test Code: NH3-W-350.1		Date Prepared: 07/28/2019 1400h											
Ammonia (as N)	13.2	mg/L	E350.1	0.0492	0.0500	10.00	0.0935	132	90 - 110	13.3	0.527	10	1
Lab Sample ID: 1907511-018AMSD		Date Analyzed: 07/29/2019 1033h											
Test Code: NH3-W-350.1		Date Prepared: 07/28/2019 1400h											
Ammonia (as N)	12.9	mg/L	E350.1	0.0492	0.0500	10.00	0	129	90 - 110	13.4	3.58	10	1



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-004AMSD Date Analyzed: 07/22/2019 1309h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	17.0	mg/L	E353.2	0.0363	0.100	10.00	6.5	105	90 - 110	17.1	0.411	10	
Lab Sample ID: 1907511-008AMSD Date Analyzed: 07/22/2019 1313h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	11.4	mg/L	E353.2	0.0363	0.100	10.00	0.558	109	90 - 110	11.4	0.526	10	

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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC-1 071919A Date Analyzed: 07/19/2019 1003h													
Test Code: 8260-W-DEN100													
2-Butanone	35.8	µg/L	SW8260C	1.31	20.0	20.00	0	179	74 - 200				
Acetone	53.6	µg/L	SW8260C	2.87	20.0	20.00	0	268	70 - 350				#
Benzene	24.7	µg/L	SW8260C	0.147	1.00	20.00	0	123	82 - 132				
Carbon tetrachloride	24.0	µg/L	SW8260C	0.262	1.00	20.00	0	120	77 - 143				
Chloroform	24.2	µg/L	SW8260C	0.166	1.00	20.00	0	121	85 - 124				
Chloromethane	23.6	µg/L	SW8260C	0.832	1.00	20.00	0	118	30 - 149				
Methylene chloride	29.5	µg/L	SW8260C	0.448	1.00	20.00	0	147	65 - 154				#
Naphthalene	19.1	µg/L	SW8260C	0.704	1.00	20.00	0	95.6	62 - 129				
Tetrahydrofuran	26.0	µg/L	SW8260C	0.436	1.00	20.00	0	130	59 - 135				#
Toluene	21.9	µg/L	SW8260C	0.177	1.00	20.00	0	109	69 - 129				
Xylenes, Total	61.5	µg/L	SW8260C	0.253	1.00	60.00	0	103	66 - 124				
Surr: 1,2-Dichloroethane-d4	60.4	µg/L	SW8260C			50.00		121	80 - 136				
Surr: 4-Bromofluorobenzene	47.9	µg/L	SW8260C			50.00		95.8	85 - 121				
Surr: Dibromofluoromethane	50.7	µg/L	SW8260C			50.00		101	78 - 132				
Surr: Toluene-d8	48.7	µg/L	SW8260C			50.00		97.3	81 - 123				
Lab Sample ID: LCS VOC-1 072219A Date Analyzed: 07/22/2019 1054h													
Test Code: 8260-W-DEN100													
2-Butanone	21.2	µg/L	SW8260C	1.31	20.0	20.00	0	106	74 - 200				
Acetone	41.6	µg/L	SW8260C	2.87	20.0	20.00	0	208	70 - 350				
Benzene	23.9	µg/L	SW8260C	0.147	1.00	20.00	0	120	82 - 132				
Carbon tetrachloride	23.2	µg/L	SW8260C	0.262	1.00	20.00	0	116	77 - 143				
Chloroform	23.2	µg/L	SW8260C	0.166	1.00	20.00	0	116	85 - 124				
Chloromethane	21.0	µg/L	SW8260C	0.832	1.00	20.00	0	105	30 - 149				
Methylene chloride	28.0	µg/L	SW8260C	0.448	1.00	20.00	0	140	65 - 154				
Naphthalene	18.1	µg/L	SW8260C	0.704	1.00	20.00	0	90.6	62 - 129				
Tetrahydrofuran	25.7	µg/L	SW8260C	0.436	1.00	20.00	0	129	59 - 135				

analyses applicable to the CWA, SDWA, and RCRA are performed in accordance to NELAC protocols. Pertinent sampling information is located on the attached COC. Confidential Business Information: This report is provided for the exclusive use of the addressee. Privileges of subsequent use of this report by any member of its staff, or reproduction of this report in connection with the advertisement, promotion or sale of any product or process, or in connection with the re-publication of this report for any purpose other than for the addressee will be granted only on contact. This



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC-1 072219A	Date Analyzed: 07/22/2019 1054h												
Test Code: 8260-W-DEN100													
Toluene	20.4	µg/L	SW8260C	0.177	1.00	20.00	0	102	69 - 129				
Xylenes, Total	59.4	µg/L	SW8260C	0.253	1.00	60.00	0	99.0	66 - 124				
Surr: 1,2-Dichloroethane-d4	58.5	µg/L	SW8260C			50.00		117	80 - 136				
Surr: 4-Bromofluorobenzene	46.4	µg/L	SW8260C			50.00		92.9	85 - 121				
Surr: Dibromofluoromethane	50.1	µg/L	SW8260C			50.00		100	78 - 132				
Surr: Toluene-d8	47.0	µg/L	SW8260C			50.00		94.1	81 - 123				

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.

Lab Set ID: 1907511

Project: Q3 Ground Water 2019

Contact: Tanner Holliday

Dept: MSVOA

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC-1 071919A Date Analyzed: 07/19/2019 1043h													
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								#
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								#
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								#
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	59.6	µg/L	SW8260C			50.00		119	80 - 136				
Surr: 4-Bromofluorobenzene	48.6	µg/L	SW8260C			50.00		97.1	85 - 121				
Surr: Dibromofluoromethane	50.9	µg/L	SW8260C			50.00		102	78 - 132				
Surr: Toluene-d8	48.8	µg/L	SW8260C			50.00		97.5	81 - 123				

Lab Sample ID: MB VOC-1 072219A Date Analyzed: 07/22/2019 1134h													
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.

Lab Set ID: 1907511

Project: Q3 Ground Water 2019

Contact: Tanner Holliday

Dept: MSVOA

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC-1 072219A	Date Analyzed: 07/22/2019 1134h												
Test Code: 8260-W-DEN100													
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	59.0	µg/L	SW8260C			50.00		118	80 - 136				
Surr: 4-Bromofluorobenzene	47.4	µg/L	SW8260C			50.00		94.8	85 - 121				
Surr: Dibromofluoromethane	49.5	µg/L	SW8260C			50.00		99.0	78 - 132				
Surr: Toluene-d8	48.2	µg/L	SW8260C			50.00		96.4	81 - 123				

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-008FMS		Date Analyzed: 07/19/2019 1604h											
Test Code: 8260-W-DEN100													
2-Butanone	26.4	µg/L	SW8260C	1.31	20.0	20.00	0	132	74 - 200				
Acetone	25.2	µg/L	SW8260C	2.87	20.0	20.00	0	126	70 - 350				#
Benzene	22.5	µg/L	SW8260C	0.147	1.00	20.00	0	113	82 - 132				
Carbon tetrachloride	21.6	µg/L	SW8260C	0.262	1.00	20.00	0	108	77 - 143				
Chloroform	23.7	µg/L	SW8260C	0.166	1.00	20.00	0	119	85 - 124				
Chloromethane	22.0	µg/L	SW8260C	0.832	1.00	20.00	0	110	30 - 149				
Methylene chloride	26.4	µg/L	SW8260C	0.448	1.00	20.00	0	132	65 - 154				#
Naphthalene	16.0	µg/L	SW8260C	0.704	1.00	20.00	0	80.2	62 - 129				
Tetrahydrofuran	25.2	µg/L	SW8260C	0.436	1.00	20.00	0	126	59 - 135				#
Toluene	19.9	µg/L	SW8260C	0.177	1.00	20.00	0	99.4	69 - 129				
Xylenes, Total	56.8	µg/L	SW8260C	0.253	1.00	60.00	0	94.7	66 - 124				
Surr: 1,2-Dichloroethane-d4	59.2	µg/L	SW8260C			50.00		118	80 - 136				
Surr: 4-Bromofluorobenzene	49.5	µg/L	SW8260C			50.00		99.0	85 - 121				
Surr: Dibromofluoromethane	50.7	µg/L	SW8260C			50.00		101	78 - 132				
Surr: Toluene-d8	48.8	µg/L	SW8260C			50.00		97.7	81 - 123				

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1907511
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1907511-008FMSD		Date Analyzed: 07/19/2019 1624h											
Test Code: 8260-W-DEN100													
2-Butanone	14.6	µg/L	SW8260C	1.31	20.0	20.00	0	73.0	74 - 200	26.4	57.5	35	³
Acetone	25.9	µg/L	SW8260C	2.87	20.0	20.00	0	130	70 - 350	25.3	2.58	35	#
Benzene	23.2	µg/L	SW8260C	0.147	1.00	20.00	0	116	82 - 132	22.5	2.80	35	
Carbon tetrachloride	21.7	µg/L	SW8260C	0.262	1.00	20.00	0	109	77 - 143	21.6	0.461	35	
Chloroform	22.8	µg/L	SW8260C	0.166	1.00	20.00	0	114	85 - 124	23.7	3.82	35	
Chloromethane	23.8	µg/L	SW8260C	0.832	1.00	20.00	0	119	30 - 149	22.1	7.80	35	
Methylene chloride	27.4	µg/L	SW8260C	0.448	1.00	20.00	0	137	65 - 154	26.4	4.01	35	#
Naphthalene	16.1	µg/L	SW8260C	0.704	1.00	20.00	0	80.6	62 - 129	16	0.560	35	
Tetrahydrofuran	24.9	µg/L	SW8260C	0.436	1.00	20.00	0	125	59 - 135	25.2	1.04	35	#
Toluene	19.9	µg/L	SW8260C	0.177	1.00	20.00	0	99.4	69 - 129	19.9	0.0503	35	
Xylenes, Total	56.2	µg/L	SW8260C	0.253	1.00	60.00	0	93.7	66 - 124	56.8	1.08	35	
Surr: 1,2-Dichloroethane-d4	58.7	µg/L	SW8260C			50.00		117	80 - 136				
Surr: 4-Bromofluorobenzene	46.8	µg/L	SW8260C			50.00		93.7	85 - 121				
Surr: Dibromofluoromethane	50.4	µg/L	SW8260C			50.00		101	78 - 132				
Surr: Toluene-d8	47.4	µg/L	SW8260C			50.00		94.9	81 - 123				

- This compound exceeded (high) the control limit for the CCV. The data is acceptable since the compound was not detected in the sample.

³ - Matrix spike recoveries and high RPDs indicate suspected sample non-homogeneity. The method is in control as indicated by the LCS.

Samples -004, -005, and -006 for 300.0-W were cancelled
as they had expired due to laboratory and instrument
problems. MC

WORK ORDER Summary

Work Order: **1907511** Page 1 of 8

Client: Energy Fuels Resources, Inc. **Due Date:** 8/5/2019
Client ID: ENE300 **Contact:** Tanner Holliday
Project: Q3 Ground Water 2019 **QC Level:** III **WO Type:** Project
Comments: QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; (USE PROJECT for special DLs). Do not use "*R_" samples as MS/MSD.;

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1907511-001A	MW-05_07112019	7/11/2019 1020h	7/19/2019 1130h	200.8-DIS <i>1 SEL Analytes: U</i>	Aqueous	<input checked="" type="checkbox"/>	df-met	1
				200.8-DIS-PR		<input checked="" type="checkbox"/>	df-met	
1907511-002A	MW-12_07112019	7/11/2019 1300h	7/19/2019 1130h	200.8-DIS <i>1 SEL Analytes: U</i>	Aqueous	<input checked="" type="checkbox"/>	df-met	1
				200.8-DIS-PR		<input checked="" type="checkbox"/>	df-met	
1907511-003A	MW-24_07182019	7/18/2019 0735h	7/19/2019 1130h	200.8-DIS <i>4 SEL Analytes: BE CD NI TL</i>	Aqueous	<input checked="" type="checkbox"/>	df-met	1
				200.8-DIS-PR		<input checked="" type="checkbox"/>	df-met	
1907511-003B				300.0-W <i>1 SEL Analytes: F</i>		<input checked="" type="checkbox"/>	df-f	
1907511-004A	MW-27_07122019	7/12/2019 1035h	7/19/2019 1130h	NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1
1907511-004B						<input type="checkbox"/>	df-f	
1907511-005A	MW-28_07122019	7/12/2019 1050h	7/19/2019 1130h	200.8-DIS <i>2 SEL Analytes: SE U</i>	Aqueous	<input checked="" type="checkbox"/>	df-met	1
				200.8-DIS-PR		<input checked="" type="checkbox"/>	df-met	
1907511-005B						<input type="checkbox"/>	df-f	
1907511-006A	MW-32_07112019	7/11/2019 1150h	7/19/2019 1130h		Aqueous	<input type="checkbox"/>	df-f	1
1907511-007A	MW-35_07112019	7/11/2019 1345h	7/19/2019 1130h	NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>	Aqueous	<input checked="" type="checkbox"/>	DF-NH3	1
				NH3-W-PR		<input type="checkbox"/>	DF-NH3	
1907511-008A	MW-11_07162019	7/16/2019 1130h	7/19/2019 1130h	NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1
				NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		<input checked="" type="checkbox"/>	DF-NO2/NO3	
1907511-008B				300.0-W <i>3 SEL Analytes: CL F SO4</i>		<input checked="" type="checkbox"/>	df-f	

WORK ORDER Summary

Work Order: **1907511** Page 2 of 8

Client: Energy Fuels Resources, Inc.

Due Date: 8/5/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1907511-008C	MW-11_07162019	7/16/2019 1130h	7/19/2019 1130h	TDS-W-2540C	Aqueous	<input checked="" type="checkbox"/>	df-tds	1
				<i>1 SEL Analytes: TDS</i>				
1907511-008D				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk	
				<i>2 SEL Analytes: ALKB ALKC</i>				
1907511-008E				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals	
				<i>5 SEL Analytes: CA MG K NA V</i>				
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals	
				200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>				
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals	
	HG-DW-DIS-245.1	<input checked="" type="checkbox"/>	DF-Metals					
	<i>1 SEL Analytes: HG</i>							
	HG-DW-DIS-PR	<input type="checkbox"/>	DF-Metals					
	IONBALANCE	<input checked="" type="checkbox"/>	DF-Metals					
	<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>							
1907511-008F				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3
				<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				
1907511-009A	MW-14_07152019	7/15/2019 1445h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1
				<i>1 SEL Analytes: NH3N</i>				
				NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3	
				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	DF-NO2/NO3	
				<i>1 SEL Analytes: NO3NO2N</i>				
1907511-009B				300.0-W		<input checked="" type="checkbox"/>	df-f	
				<i>3 SEL Analytes: CL F SO4</i>				
1907511-009C				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds	
				<i>1 SEL Analytes: TDS</i>				
1907511-009D				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk	
				<i>2 SEL Analytes: ALKB ALKC</i>				
1907511-009E				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals	
				<i>5 SEL Analytes: CA MG K NA V</i>				
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals	
				200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals	
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>				
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals	
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals	
				<i>1 SEL Analytes: HG</i>				
				HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals	

WORK ORDER Summary

Work Order: **1907511** Page 3 of 8

Client: Energy Fuels Resources, Inc.

Due Date: 8/5/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1907511-009E	MW-14_07152019	7/15/2019 1445h	7/19/2019 1130h	IONBALANCE	Aqueous	<input checked="" type="checkbox"/>	DF-Metals	1		
1907511-009F				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3		
				Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4						
1907511-010A	MW-25_07152019	7/15/2019 1145h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1		
							NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3
				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	DF-NO2/NO3			
				1 SEL Analytes: NO3NO2N						
1907511-010B				300.0-W		<input checked="" type="checkbox"/>	df-f			
				3 SEL Analytes: CL F SO4						
1907511-010C				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds			
				1 SEL Analytes: TDS						
1907511-010D				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk			
				2 SEL Analytes: ALKB ALKC						
1907511-010E				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				5 SEL Analytes: CA MG K NA V						
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals			
				200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN						
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals			
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals			
				1 SEL Analytes: HG						
				HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals			
				IONBALANCE		<input checked="" type="checkbox"/>	DF-Metals			
				5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc						
1907511-010F				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3		
				Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4						
1907511-011A	MW-26_07162019	7/16/2019 0900h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1		
							NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3
				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	DF-NO2/NO3			
				1 SEL Analytes: NO3NO2N						
1907511-011B				300.0-W		<input checked="" type="checkbox"/>	df-f			
				3 SEL Analytes: CL F SO4						
1907511-011C				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds			
				1 SEL Analytes: TDS						

WORK ORDER Summary

Work Order: **1907511** Page 4 of 8

Client: Energy Fuels Resources, Inc.

Due Date: 8/5/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1907511-011D	MW-26_07162019	7/16/2019 0900h	7/19/2019 1130h	ALK-W-2320B-LL	Aqueous	<input checked="" type="checkbox"/>	df-alk	1		
1907511-011E						200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals	
						200.7-DIS-PR		<input type="checkbox"/>	DF-Metals	
						200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals	
						200.8-DIS-PR		<input type="checkbox"/>	DF-Metals	
						HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals	
			HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals				
			IONBALANCE		<input checked="" type="checkbox"/>	DF-Metals				
1907511-011F				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3		
1907511-012A	MW-30_07162019	7/16/2019 1025h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1		
						NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3	
				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	DF-NO2/NO3			
1907511-012B				300.0-W		<input checked="" type="checkbox"/>	df-f			
1907511-012C				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds			
1907511-012D				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk			
1907511-012E				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals			
				200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals			
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals			
				HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals			
				IONBALANCE		<input checked="" type="checkbox"/>	DF-Metals			

WORK ORDER Summary

Work Order: **1907511** Page 5 of 8

Client: Energy Fuels Resources, Inc.

Due Date: 8/5/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1907511-012F	MW-30_07162019	7/16/2019 1025h	7/19/2019 1130h	8260D-W-DEN100	Aqueous	<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>								
1907511-013A	MW-31_07152019	7/15/2019 1340h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1
<i>1 SEL Analytes: NH3N</i>								
<hr/>								
NH3-W-PR <input type="checkbox"/> DF-NO2/NO3								
<hr/>								
NO2/NO3-W-353.2 <input checked="" type="checkbox"/> DF-NO2/NO3								
<i>1 SEL Analytes: NO3NO2N</i>								
1907511-013B				300.0-W		<input checked="" type="checkbox"/>	df-f	
<i>3 SEL Analytes: CL F SO4</i>								
1907511-013C				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds	
<i>1 SEL Analytes: TDS</i>								
1907511-013D				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk	
<i>2 SEL Analytes: ALKB ALKC</i>								
1907511-013E				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals	
<i>5 SEL Analytes: CA MG K NA V</i>								
<hr/>								
200.7-DIS-PR <input type="checkbox"/> DF-Metals								
<hr/>								
200.8-DIS <input checked="" type="checkbox"/> DF-Metals								
<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>								
<hr/>								
200.8-DIS-PR <input type="checkbox"/> DF-Metals								
<hr/>								
HG-DW-DIS-245.1 <input checked="" type="checkbox"/> DF-Metals								
<i>1 SEL Analytes: HG</i>								
<hr/>								
HG-DW-DIS-PR <input type="checkbox"/> DF-Metals								
<hr/>								
IONBALANCE <input checked="" type="checkbox"/> DF-Metals								
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>								
1907511-013F				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3
<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>								
1907511-014A	MW-38_07182019	7/18/2019 0700h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1
<i>1 SEL Analytes: NH3N</i>								
<hr/>								
NH3-W-PR <input type="checkbox"/> DF-NO2/NO3								
<hr/>								
NO2/NO3-W-353.2 <input checked="" type="checkbox"/> DF-NO2/NO3								
<i>1 SEL Analytes: NO3NO2N</i>								
1907511-014B				300.0-W		<input checked="" type="checkbox"/>	df-f	
<i>3 SEL Analytes: CL F SO4</i>								
1907511-014C				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds	
<i>1 SEL Analytes: TDS</i>								
1907511-014D				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk	
<i>2 SEL Analytes: ALKB ALKC</i>								

WORK ORDER Summary

Work Order: **1907511** Page 6 of 8

Client: Energy Fuels Resources, Inc.

Due Date: 8/5/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage					
1907511-014E	MW-38_07182019	7/18/2019 0700h	7/19/2019 1130h	200.7-DIS	Aqueous	<input checked="" type="checkbox"/>	DF-Metals	1				
								<i>5 SEL Analytes: CA MG K NA V</i>				
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals					
				200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals					
								<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>				
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals					
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals					
								<i>1 SEL Analytes: HG</i>				
1907511-014F				HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals					
								<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
				IONBALANCE		<input checked="" type="checkbox"/>	DF-Metals					
								<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3				
								<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				
				1907511-015A	MW-39_07172019	7/17/2019 1100h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1
												<i>1 SEL Analytes: NH3N</i>
NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3									
1907511-015B				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	DF-NO2/NO3					
								<i>1 SEL Analytes: NO3NO2N</i>				
1907511-015C				300.0-W		<input checked="" type="checkbox"/>	df-f					
				<i>3 SEL Analytes: CL F SO4</i>								
1907511-015D				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds					
				<i>1 SEL Analytes: TDS</i>								
1907511-015E				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk					
				<i>2 SEL Analytes: ALKB ALKC</i>								
1907511-015F				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals					
								<i>5 SEL Analytes: CA MG K NA V</i>				
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals					
				200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals					
								<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>				
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals					
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals					
								<i>1 SEL Analytes: HG</i>				
1907511-015G				HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals					
								<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
				IONBALANCE		<input checked="" type="checkbox"/>	DF-Metals					
								<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>				
				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3				
								<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>				

WORK ORDER Summary

Work Order: **1907511** Page 7 of 8

Client: Energy Fuels Resources, Inc.

Due Date: 8/5/2019

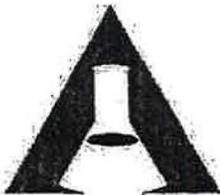
Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1907511-016A	MW-40_07162019	7/16/2019 1445h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1		
				<i>1 SEL Analytes: NH3N</i>						
				NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3			
				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	DF-NO2/NO3			
				<i>1 SEL Analytes: NO3NO2N</i>						
				300.0-W		<input checked="" type="checkbox"/>	df-f			
				<i>3 SEL Analytes: CL F SO4</i>						
				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds			
				<i>1 SEL Analytes: TDS</i>						
				1907511-016B				300.0-W		<input checked="" type="checkbox"/>
1907511-016C				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds			
1907511-016D				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk			
1907511-016E				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				<i>5 SEL Analytes: CA MG K NA V</i>						
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals			
				200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>						
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals			
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals			
				<i>1 SEL Analytes: HG</i>						
				HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals			
				IONBALANCE		<input checked="" type="checkbox"/>	DF-Metals			
<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>										
1907511-016F				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3		
<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>										
1907511-017A	MW-65_07162019	7/16/2019 1130h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1		
				<i>1 SEL Analytes: NH3N</i>						
				NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3			
				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	DF-NO2/NO3			
				<i>1 SEL Analytes: NO3NO2N</i>						
				300.0-W		<input checked="" type="checkbox"/>	df-f			
				<i>3 SEL Analytes: CL F SO4</i>						
				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds			
				<i>1 SEL Analytes: TDS</i>						
				1907511-017B				300.0-W		<input checked="" type="checkbox"/>
1907511-017C				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds			
1907511-017D				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk			
1907511-017E				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				<i>5 SEL Analytes: CA MG K NA V</i>						
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals			

WORK ORDER Summary

Client: Energy Fuels Resources, Inc.

Due Date: 8/5/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage			
1907511-017E	MW-65_07162019	7/16/2019 1130h	7/19/2019 1130h	200.8-DIS	Aqueous	<input checked="" type="checkbox"/>	DF-Metals	1		
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>						
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals			
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals			
				<i>1 SEL Analytes: HG</i>						
1907511-017F				HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals			
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>						
				IONBALANCE		<input checked="" type="checkbox"/>	DF-Metals			
				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3		
				<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>						
1907511-018A	MW-36_07162019	7/16/2019 1340h	7/19/2019 1130h	NH3-W-350.1	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1		
				<i>1 SEL Analytes: NH3N</i>						
				NH3-W-PR		<input type="checkbox"/>	DF-NO2/NO3			
1907511-018B				NO2/NO3-W-353.2		<input checked="" type="checkbox"/>	DF-NO2/NO3			
				<i>1 SEL Analytes: NO3NO2N</i>						
1907511-018C				300.0-W		<input checked="" type="checkbox"/>	df-f			
<i>3 SEL Analytes: CL F SO4</i>										
1907511-018D				TDS-W-2540C		<input checked="" type="checkbox"/>	df-tds			
<i>1 SEL Analytes: TDS</i>										
1907511-018E				ALK-W-2320B-LL		<input checked="" type="checkbox"/>	df-alk			
<i>2 SEL Analytes: ALKB ALKC</i>										
1907511-018E				200.7-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				<i>5 SEL Analytes: CA MG K NA V</i>						
				200.7-DIS-PR		<input type="checkbox"/>	DF-Metals			
				200.8-DIS		<input checked="" type="checkbox"/>	DF-Metals			
				<i>17 SEL Analytes: AS BE CD CR CO CU FE PB MN MO NI SE AG TL SN U ZN</i>						
				200.8-DIS-PR		<input type="checkbox"/>	DF-Metals			
				HG-DW-DIS-245.1		<input checked="" type="checkbox"/>	DF-Metals			
				<i>1 SEL Analytes: HG</i>						
				HG-DW-DIS-PR		<input type="checkbox"/>	DF-Metals			
				<i>5 SEL Analytes: BALANCE Anions Cations TDS-Balance TDS-Calc</i>						
1907511-018F				8260D-W-DEN100		<input checked="" type="checkbox"/>	Purge	3		
<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>										
1907511-019A	Trip Blank	7/15/2019 1145h	7/19/2019 1130h	8260D-W-DEN100	Aqueous	<input checked="" type="checkbox"/>	Purge	3		
<i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>										



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 www.awal-labs.com

CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analysis lists and reporting limits (POL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1907511
 AWAL Lab Sample Set #
 Page 1 of 2

Due Date:

Client: Energy Fuels Resources, Inc.
Address: 6425 S. Hwy. 191
 Blanding, UT 84511
Contact: Tanner Holliday
Phone #: (435) 678-2221 Cell #:
 Email: tholliday@energyfuels.com; KHWeinst@energyfuels.com
Project Name: Q3 Ground Water 2019
Project #:
PO #:
Sampler Name: Tanner Holliday

QC Level: 3
Turn Around Time: Standard

Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.

X Include EDD:
 LOCUS UPLOAD EXCEL
 X Field Filtered For:
 Dissolved Metals

For Compliance With:
 NELAP
 RCRA
 CWA
 SDWA
 ELAP / A2LA
 NLLAP
 Non-Compliance
 Other:

Known Hazards & Sample Comments

Laboratory Use Only

Samples Were:
 Shipped or hand delivered
 Ambient or chilled
 Temperature 1.8 °C
 Received Broken/Leaking (Improperly Sealed)
 Y N
 Empty Preserved
 Y N
 Checked at bench
 Y N
 Received Within Holding Times
 N

Present on Outer Package
 Y N NA

Unbroken on Outer Package
 Y N NA

Present on Sample
 Y N NA

Unbroken on Sample
 Y N NA

Discrepancies Between Sample Labels and COC Report?
 Y N

Sample ID:	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (353.2)	Cl (4500 or 300.0)	TDS (2540C)	Dissolved Uranium (200.7/200.8)	Dissolved Cadmium (200.7/200.8)	Dissolved Selenium (200.7/200.8)	Dissolved Thallium (200.7/200.8)	SO4 (4500 or 300.0)	Fl (4500 or 300.0)	Dissolved Beryllium (200.7/200.8)	Ammonia (350.1)	Dissolved Nickel (200.7/200.8)
MW-05_07112019	7/11/2019	1020	1	W				X								
MW-12_07112019	7/11/2019	1300	1	W				X								
MW-24_07182019	7/18/2019	735	2	W					X	X		X	X		X	
MW-27_07122019	7/12/2019	1035	2	W	X	X										
MW-28_07122019	7/12/2019	1050	2	W	X		X	X								
MW-32_07112019	7/11/2019	1180	1	W	X											
MW-35_07112019	7/11/2019	1345	1	W										X		

Relinquished by: Signature: <i>Tanner Holliday</i>	Date: 7/18/2019	Received by: Signature: <i>Edna H...</i>	Date: 7/18/19
Print Name: Tanner Holliday	Time: 1130	Print Name: <i>Edna H...</i>	Time: 1130
Relinquished by: Signature:	Date:	Received by: Signature: <i>Edna H...</i>	Date: 7/18/19
Print Name:	Time:	Print Name: <i>Edna H...</i>	Time: 1130
Relinquished by: Signature:	Date:	Received by: Signature:	Date:
Print Name:	Time:	Print Name:	Time:
Relinquished by: Signature:	Date:	Received by: Signature:	Date:
Print Name:	Time:	Print Name:	Time:

Special Instructions:
 Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.
 * Samples had expired prior to analysis due to laboratory instrument problems. Samples were cancelled and will be sampled again. MC 8/14/2019



American West Analytical Laboratories

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 www.awal-labs.com

CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

190751
 AWAL Lab Sample Set #
 Page 2 of 2

Due Date:

Laboratory Use Only

Samples Were:

- Shipped or hand delivered
- Ambient or Chilled 1.8 °C
- Temperature
- Received Broken/Leaking (Improperly Sealed)
Y N
- Properly Preserved
Y N
Checked at bench
Y N
- Received Within Holding Times
Y N

COC Tape Was:

- Present on Outer Package
Y N NA
- Unbroken on Outer Package
Y N NA
- Present on Sample
Y N NA
- Unbroken on Sample
Y N NA

Discrepancies Between Sample Labels and COC Record?
Y N

QC Level: 3
 Turn Around Time: Standard
 Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.

X Include EDD:
 LOCUS UPLOAD
 EXCEL
 X Field Filtered For:
 Dissolved Metals

For Compliance With:
 NELAP
 RCRA
 CWA
 SDWA
 ELAP / AZLA
 NLLAP
 Non-Compliance
 Other:

Known Hazards & Sample Comments

Sample ID:	Date Sampled	Time Sampled	# of Containers	Sample Matrix	NO2/NO3 (353.2)	NH3 (4500G or 350.1)	F1, Cl, SO4 (4500 or 300.0)	TDS (2540C)	Carb/Bicarb (2320B)	Dissolved Metals (200.7/200.8/245.1)	As, Be, Cd, Cr, Co, Cu, Fe, Pb, Mn, Hg, Mo, Ni, Se, Ag, Tl, Sn, U, V, Zn, Na, K, Mg, Ca	Ion Balance	VOCs (8260C)
MW-11_07162019	7/16/2019	1130	7	w	x	x	x	x	x	x	x	x	x
MW-14_07152019	7/15/2019	1445	7	w	x	x	x	x	x	x	x	x	x
MW-25_07152019	7/15/2019	1145	7	w	x	x	x	x	x	x	x	x	x
MW-26_07162019	7/16/2019	900	7	w	x	x	x	x	x	x	x	x	x
MW-30_07162019	7/16/2019	1025	7	w	x	x	x	x	x	x	x	x	x
MW-31_07152019	7/15/2019	1340	7	w	x	x	x	x	x	x	x	x	x
MW-38_07182019	7/18/2019	700	7	w	x	x	x	x	x	x	x	x	x
MW-39_07172019	7/17/2019	1100	7	w	x	x	x	x	x	x	x	x	x
MW-40_07162019	7/16/2019	1445	7	w	x	x	x	x	x	x	x	x	x
MW-65_07162019	7/16/2019	1130	7	w	x	x	x	x	x	x	x	x	x
MW-36_07162019	7/16/2019	1340	7	w	x	x	x	x	x	x	x	x	x
TRIP BLANK	7/15/2019	1145	3	w									x

Client: **Energy Fuels Resources, Inc.**
 Address: **6425 S. Hwy. 191**
Blanding, UT 84511
 Contact: **Garrin Palmer**
 Phone #: **(435) 678-2221** Cell #:
 Email: **gpalmer@energyfuels.com; KWeinel@energyfuels.com; tholliday@energyfuels.com**
 Project Name: **Q3 Groundwater 2019**
 Project #:
 PO #:
 Sampler Name: **Tanner Holliday**

Relinquished by: Signature: <i>Tanner Holliday</i>	Date: 7/19/2019	Received by: Signature: <i>Elmer Taylor</i>	Date: 7/19/19
Print Name: Tanner Holliday	Time: 1130	Print Name: Elmer Taylor	Time: 1130
Relinquished by: Signature:	Date:	Received by: Signature:	Date:
Print Name:	Time:	Print Name:	Time:
Relinquished by: Signature:	Date:	Received by: Signature:	Date:
Print Name:	Time:	Print Name:	Time:
Relinquished by: Signature:	Date:	Received by: Signature:	Date:
Print Name:	Time:	Print Name:	Time:

Special Instructions:
 Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.

Lab Set ID: 1907511

pH Lot #: 5912

Preservation Check Sheet

Sample Set Extension and pH

Analysis	Preservative	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Ammonia	pH <2 H ₂ SO ₄							Yes											
COD	pH <2 H ₂ SO ₄																		
Cyanide	pH >12 NaOH																		
Metals	pH <2 HNO ₃	Yes	Yes	Yes		Yes			Yes										
NO ₂ /NO ₃	pH <2 H ₂ SO ₄				Yes				Yes										
O & G	pH <2 HCL																		
Phenols	pH <2 H ₂ SO ₄																		
Sulfide	pH >9 NaOH, Zn Acetate																		
TKN	pH <2 H ₂ SO ₄																		
T PO ₄	pH <2 H ₂ SO ₄																		
Cr VI+	pH >9 (NH ₄) ₂ SO ₄																		

- Procedure:
- 1) Pour a small amount of sample in the sample lid
 - 2) Pour sample from lid gently over wide range pH paper
 - 3) **Do Not** dip the pH paper in the sample bottle or lid
 - 4) If sample is not preserved, properly list its extension and receiving pH in the appropriate column above
 - 5) Flag COC, notify client if requested
 - 6) Place client conversation on COC
 - 7) Samples may be adjusted

Frequency: All samples requiring preservation

- * The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH < 2 due to the sample matrix.
- The sample pH was unadjustable to a pH > ____ due to the sample matrix interference.



Tanner Holliday
Energy Fuels Resources, Inc.
6425 South Hwy 191
Blanding, UT 84511
TEL: (435) 678-2221

RE: Q3 Ground Water 2019

Dear Tanner Holliday:

Lab Set ID: 1908464

3440 South 700 West
Salt Lake City, UT 84119

American West Analytical Laboratories received sample(s) on 8/20/2019 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

Phone: (801) 263-8686
Toll Free: (888) 263-8686
Fax: (801) 263-8687
e-mail: awal@awal-labs.com

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Thank You,

Approved by:

Jose G. Rocha	Digitally signed by Jose G. Rocha
	DN: cn=Jose G. Rocha, o=American West Analytical Laboratories, ou, email=jose@awal-labs.com, c=US Date: 2019.09.03 15:53:56 -06'00'

Laboratory Director or designee



Inorganic Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Tanner Holliday
Project: Q3 Ground Water 2019
Lab Set ID: 1908464

3440 South 700 West
Salt Lake City, UT 84119

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web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Sample Receipt Information:

Date of Receipt: 8/20/2019
Date(s) of Collection: 8/15-8/16/2019
Sample Condition: Intact
C-O-C Discrepancies: None

Holding Time and Preservation Requirements: The analysis and preparation of all samples were performed within the method holding times. All samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD:

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, indicating no apparent matrix interferences.

Duplicate (DUP): The parameters that required a duplicate analysis had RPDs within the control limits.

Corrective Action: None required.



SAMPLE SUMMARY

Client: Energy Fuels Resources, Inc.
Project: Q3 Ground Water 2019
Lab Set ID: 1908464
Date Received: 8/20/2019 1010h

Contact: Tanner Holliday

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Date Collected</u>	<u>Matrix</u>	<u>Analysis</u>
1908464-001A	MW-32_08152019	8/15/2019 1300h	Aqueous	Anions, E300.0
1908464-002A	MW-27_08152019	8/15/2019 1200h	Aqueous	Anions, E300.0
1908464-003A	MW-28_08162019	8/16/2019 1200h	Aqueous	Anions, E300.0

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



3440 South 700 West

Salt Lake City, UT 84119

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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.

Lab Set ID: 1908464

Project: Q3 Ground Water 2019

Contact: Tanner Holliday

Dept: WC

QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-R129665	Date Analyzed: 08/27/2019 1616h												
Test Code: 300.0-W													
Chloride	4.99	mg/L	E300.0	0.0386	0.100	5.000	0	99.8	90 - 110				



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Salt Lake City, UT 84119

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.

Lab Set ID: 1908464

Project: Q3 Ground Water 2019

Contact: Tanner Holliday

Dept: WC

QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-R129665	Date Analyzed:		08/27/2019 1559h										
Test Code: 300.0-W													
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908464
Project: Q3 Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1908464-001AMS	Date Analyzed: 08/28/2019 1244h												
Test Code: 300.0-W													
Chloride	137	mg/L	E300.0	0.772	2.00	100.0	35.7	101	90 - 110				



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Salt Lake City, UT 84119

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e-mail: awal@awal-labs.com, web: www.awal-labs.com

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.

Lab Set ID: 1908464

Project: Q3 Ground Water 2019

Contact: Tanner Holliday

Dept: WC

QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1908464-001AMSD	Date Analyzed: 08/28/2019 1301h												
Test Code: 300.0-W													
Chloride	137	mg/L	E300.0	0.772	2.00	100.0	35.7	101	90 - 110	137	0.0968	20	

WORK ORDER Summary

Work Order: **1908464**

Page 1 of 1

Client: Energy Fuels Resources, Inc.

Due Date: 9/4/2019

Client ID: ENE300

Contact: Tanner Holliday

Project: Q3 Ground Water 2019

QC Level: III

WO Type: Project

Comments: QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; (USE PROJECT for special DLs). Do not use "*R_" samples as MS/MSD.; 

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1908464-001A	MW-32_08152019	8/15/2019 1300h	8/20/2019 1010h	300.0-W <i>1 SEL Analytes: CL</i>	Aqueous		df - wc	1
1908464-002A	MW-27_08152019	8/15/2019 1200h	8/20/2019 1010h	300.0-W <i>1 SEL Analytes: CL</i>	Aqueous		df - wc	1
1908464-003A	MW-28_08162019	8/16/2019 1200h	8/20/2019 1010h	300.0-W <i>1 SEL Analytes: CL</i>	Aqueous		df - wc	1



August 19, 2019

Ms. Kathy Weinel
Energy Fuels Resources (USA), Inc.
225 Union Boulevard
Suite 600
Lakewood, Colorado 80228

Re: White Mesa Mill GW
Work Order: 485412

Dear Ms. Weinel:

GEL Laboratories, LLC (GEL) appreciates the opportunity to provide the enclosed analytical results for the sample(s) we received on July 23, 2019. This original data report has been prepared and reviewed in accordance with GEL's standard operating procedures.

Test results for NELAP or ISO 17025 accredited tests are verified to meet the requirements of those standards, with any exceptions noted. The results reported relate only to the items tested and to the sample as received by the laboratory. These results may not be reproduced except as full reports without approval by the laboratory. Copies of GEL's accreditations and certifications can be found on our website at www.gel.com.

Our policy is to provide high quality, personalized analytical services to enable you to meet your analytical needs on time every time. We trust that you will find everything in order and to your satisfaction. If you have any questions, please do not hesitate to call me at (843) 556-8171, ext. 4289.

Sincerely,

Julie Robinson
Project Manager

Purchase Order: DW16138
Enclosures



Energy Fuels Resources (USA), Inc.
White Mesa Mill GW
SDG: 485412

**Receipt Narrative
for
Energy Fuels Resources (USA), Inc.
SDG: 485412**

August 19, 2019

Laboratory Identification:

GEL Laboratories LLC
2040 Savage Road
Charleston, South Carolina 29407
(843) 556-8171

Summary:

Sample receipt: The samples arrived at GEL Laboratories LLC, Charleston, South Carolina on July 23, 2019 for analysis. The samples were delivered with proper chain of custody documentation and signatures. All sample containers arrived without any visible signs of tampering or breakage. There are no additional comments concerning sample receipt.

Sample Identification: The laboratory received the following samples:

<u>Laboratory ID</u>	<u>Client ID</u>
485412001	MW-28_07122019
485412002	MW-11_07162019
485412003	MW-14_07152019
485412004	MW-25_07152019
485412005	MW-26_07162019
485412006	MW-30_07162019
485412007	MW-31_07152019
485412008	MW-38_07182019
485412009	MW-39_07172019
485412010	MW-40_07162019
485412011	MW-36_07162019
485412012	MW-65_07162019

Case Narrative:

Sample analyses were conducted using methodology as outlined in GEL's Standard Operating Procedures. Any technical or administrative problems during analysis, data review, and reduction are contained in the analytical case narratives in the enclosed data package.

The enclosed data package contains the following sections: Case Narrative, Chain of Custody, Cooler Receipt Checklist, Data Package Qualifier Definitions and data from the following fractions: Radiochemistry.

A handwritten signature in black ink that reads "Julie Robinson". The signature is written in a cursive, flowing style.

Julie Robinson
Project Manager

485412



CHAIN OF CUSTODY

Samples Shipped to: GEL Laboratories, LLC **Contact:** Tanner Holliday
2040 Savage Road Ph: 435 678 2221
Charleston, SC 29407 gpalmer@energyfuels.com
(843) 556 8171

Chain of Custody/Sampling Analysis Request

Project	Samplers Name		Samplers Signature
Q3 Ground Water 2019	Tanner Holliday		<i>Tanner Holliday</i>
Sample ID	Date Collected	Time Collected	Laboratory Analysis Requested
MW-28_07122019	7/12/2019	1050	Gross Alpha
MW-11_07162019	7/16/2019	1130	Gross Alpha
MW-14_07152019	7/15/2019	1445	Gross Alpha
MW-25_07152019	7/15/2019	1145	Gross Alpha
MW-26_07162019	7/16/2019	900	Gross Alpha
MW-30_07162019	7/16/2019	1025	Gross Alpha
MW-31_07152019	7/15/2019	1340	Gross Alpha
MW-38_07182019	7/18/2019	700	Gross Alpha
MW-39_07172019	7/17/2019	1100	Gross Alpha
MW-40_07162019	7/16/2019	1445	Gross Alpha
MW-36_07162019	7/16/2019	1340	Gross Alpha
MW-65_07162019	7/16/2019	1130	Gross Alpha
Comments: Please send report to Kathy Weinel at kweinel@energyfuels.com			

Relinquished By:(Signature) <i>Tanner Holliday</i> Tanner Holliday	Date/Time 7/18/2019 1130	Received By:(Signature) <i>[Signature]</i>	Date/Time 7/23/19 0350
Relinquished By:(Signature)	Date/Time	Received By:(Signature)	Date/Time

GEL Laboratories LLC – Login Review Report

Report Date: 19-AUG-19

Work Order: 485412

Page 1 of 2

GEL Work Order/SDG: 485412 Q3 Ground Water 2019
 Client SDG: 485412
 Project Manager: Julie Robinson
 Project Name: DNMI00100 White Mesa Mill GW
 Purchase Order: DW16138
 Package Level: LEVEL3
 EDD Format: EIM_DNMI

Work Order Due Date: 20-AUG-19
 Package Due Date: 18-AUG-19
 EDD Due Date: 20-AUG-19
 Due Date: 20-AUG-19
 TXC4

Collector: C
 Prelogin #: 20190487484
 Project Workdef ID: 1294356
 SDG Status: Closed
 Logged by:

GEL ID	Client Sample ID	Client Sample Desc.	Collect Date & Time	Receive Date & Time	Time Zone	# of Cont.	Lab Matrix	Fax Due Date	Days to Process	CofC #	Prelog Group	Lab QC	Field QC
485412001	MW-28_07122019		12-JUL-19 10:50	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412002	MW-11_07162019		16-JUL-19 11:30	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412003	MW-14_07152019		15-JUL-19 14:45	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412004	MW-25_07152019		15-JUL-19 11:45	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412005	MW-26_07162019		16-JUL-19 09:00	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412006	MW-30_07162019		16-JUL-19 10:25	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412007	MW-31_07152019		15-JUL-19 13:40	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412008	MW-38_07182019		18-JUL-19 07:00	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412009	MW-39_07172019		17-JUL-19 11:00	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412010	MW-40_07162019		16-JUL-19 14:45	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412011	MW-36_07162019		16-JUL-19 13:40	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		
485412012	MW-65_07162019		16-JUL-19 11:30	23-JUL-19 09:50	-2	1	GROUND WATER		20		1		

Client Sample ID	Status	Tests/Methods	Product Reference	Fax Date	PM Comments	Aux Data	Receive Codes
-001 MW-28_07122019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-002 MW-11_07162019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-003 MW-14_07152019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-004 MW-25_07152019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-005 MW-26_07162019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-006 MW-30_07162019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-007 MW-31_07152019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-008 MW-38_07182019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-009 MW-39_07172019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-010 MW-40_07162019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-011 MW-36_07162019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				
-012 MW-65_07162019	REVV	GFPC, Total Alpha Radium, Liquid	Gross Alpha				

GEL Laboratories LLC – Login Review Report

Report Date: 19-AUG-19

Work Order: 485412

Page 2 of 2

Product: GFCTORAL	Workdef ID: 1458614	In Product Group? No	Group Name:	Group Reference:
Method: EPA 903.0				Path: Drinking Water (903.0 or 9315)
Product Description: GFPC, Total Alpha Radium, Liquid				Product Reference: Gross Alpha
Samples: 001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012				Moisture Correction: "As Received"
Parmname Check: All parmnames scheduled properly				

CAS #	Parmname	Client RDL or PQL & Unit	Reporting Units	Parm Function	Included in Sample?	Included in QC?	Custom List?
	Gross Radium Alpha	1	pCi/L	REG	Y	Y	No

Action	Product Name	Description	Samples
Contingent Tests			

Login Requirements:

Requirement	Include?	Comments

Peer Review by: _____ Work Order (SDG#), PO# Checked? _____ C of C signed in receiver location? _____

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List of current GEL Certifications as of 19 August 2019

State	Certification
Alaska	17-018
Arkansas	88-0651
CLIA	42D0904046
California	2940
Colorado	SC00012
Connecticut	PH-0169
DoD ELAP/ ISO17025 A2LA	2567.01
Florida NELAP	E87156
Foreign Soils Permit	P330-15-00283, P330-15-00253
Georgia	SC00012
Georgia SDWA	967
Hawaii	SC00012
Idaho	SC00012
Illinois NELAP	200029
Indiana	C-SC-01
Kansas NELAP	E-10332
Kentucky SDWA	90129
Kentucky Wastewater	90129
Louisiana Drinking Water	LA024
Louisiana NELAP	03046 (AI33904)
Maine	2019020
Maryland	270
Massachusetts	M-SC012
Michigan	9976
Mississippi	SC00012
Nebraska	NE-OS-26-13
Nevada	SC000122020-1
New Hampshire NELAP	2054
New Jersey NELAP	SC002
New Mexico	SC00012
New York NELAP	11501
North Carolina	233
North Carolina SDWA	45709
North Dakota	R-158
Oklahoma	9904
Pennsylvania NELAP	68-00485
Puerto Rico	SC00012
S. Carolina Radiochem	10120002
South Carolina Chemistry	10120001
Tennessee	TN 02934
Texas NELAP	T104704235-19-15
Utah NELAP	SC000122019-28
Vermont	VT87156
Virginia NELAP	460202
Washington	C780

**Radiochemistry
 Technical Case Narrative
 Energy Fuels Resources
 SDG #: 485412**

Product: GFPC, Total Alpha Radium, Liquid
Analytical Method: EPA 903.0
Analytical Procedure: GL-RAD-A-044 REV# 10
Analytical Batch: 1900445

The following samples were analyzed using the above methods and analytical procedure(s).

<u>GEL Sample ID#</u>	<u>Client Sample Identification</u>
485412001	MW-28_07122019
485412002	MW-11_07162019
485412003	MW-14_07152019
485412004	MW-25_07152019
485412005	MW-26_07162019
485412006	MW-30_07162019
485412007	MW-31_07152019
485412008	MW-38_07182019
485412009	MW-39_07172019
485412010	MW-40_07162019
485412011	MW-36_07162019
485412012	MW-65_07162019
1204341269	Method Blank (MB)
1204341270	485412010(MW-40_07162019) Sample Duplicate (DUP)
1204341271	485412010(MW-40_07162019) Matrix Spike (MS)
1204341272	485412010(MW-40_07162019) Matrix Spike Duplicate (MSD)
1204341273	Laboratory Control Sample (LCS)

The samples in this SDG were analyzed on an "as received" basis.

Data Summary:

All sample data provided in this report met the acceptance criteria specified in the analytical methods and procedures for initial calibration, continuing calibration, instrument controls and process controls where applicable, with the following exceptions.

Quality Control (QC) Information

Duplication Criteria between QC Sample and Duplicate Sample

The Sample and the Duplicate, (See Below), did not meet the relative percent difference requirement; however, they do meet the relative error ratio requirement with the value listed below.

Sample	Analyte	Value
1204341270 (MW-40_07162019DUP)	Gross Radium Alpha	RPD 31.6* (0.00%-20.00%) RER 1.49 (0-)

Technical Information

Recounts

Samples 1204341271 (MW-40_07162019MS) and 1204341272 (MW-40_07162019MSD) were recounted due to low recovery. The recounts are reported. Sample 485412001 (MW-28_07122019) was recounted to decrease uncertainty. The recount is reported.

Miscellaneous Information

Additional Comments

The matrix spike and matrix spike duplicate, 1204341271 (MW-40_07162019MS) and 1204341272 (MW-40_07162019MSD), aliquots were reduced to conserve sample volume.

Certification Statement

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless otherwise noted in the analytical case narrative.

GEL LABORATORIES LLC

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Qualifier Definition Report for

DNMI001 Energy Fuels Resources (USA), Inc.

Client SDG: 485412 GEL Work Order: 485412

The Qualifiers in this report are defined as follows:

* A quality control analyte recovery is outside of specified acceptance criteria

** Analyte is a surrogate compound

U Analyte was analyzed for, but not detected above the CRDL.

Review/Validation

GEL requires all analytical data to be verified by a qualified data reviewer. In addition, all CLP-like deliverables receive a third level review of the fractional data package.

The following data validator verified the information presented in this data report:

Signature: 

Name: **Spencer Collins**

Date: **19 AUG 2019**

Title: **Analyst I**

GEL LABORATORIES LLC

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QC Summary

Report Date: July 30, 2019

Page 1 of

Energy Fuels Resources (USA), Inc.

225 Union Boulevard

Suite 600

Lakewood, Colorado

Ms. Kathy Weinel

Contact:

Workorder: 485412

Parname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
Rad Gas Flow											
Batch	1900445										
QC1204341270	485412010	DUP									
Gross Radium Alpha		5.24		7.21	pCi/L	31.6*		(0%-20%)	JXK3	07/26/19	15:5
	Uncertainty	+/-0.746		+/-0.776							
QC1204341273	LCS										
Gross Radium Alpha	555			525	pCi/L		94.6	(75%-125%)		07/26/19	15:5
	Uncertainty			+/-8.07							
QC1204341269	MB										
Gross Radium Alpha			U	0.165	pCi/L					07/26/19	15:5
	Uncertainty			+/-0.237							
QC1204341271	485412010	MS									
Gross Radium Alpha	2230	5.24		1880	pCi/L		84.2	(75%-125%)		07/29/19	11:5
	Uncertainty	+/-0.746		+/-20.1							
QC1204341272	485412010	MSD									
Gross Radium Alpha	2230	5.24		1720	pCi/L	8.76	77.1	(0%-20%)		07/29/19	11:5
	Uncertainty	+/-0.746		+/-20.1							

Notes:

Counting Uncertainty is calculated at the 68% confidence level (1-sigma).

The Qualifiers in this report are defined as follows:

- ** Analyte is a surrogate compound
- < Result is less than value reported
- > Result is greater than value reported
- A The TIC is a suspected aldol-condensation product
- B For General Chemistry and Organic analysis the target analyte was detected in the associated blank.
- BD Results are either below the MDC or tracer recovery is low
- C Analyte has been confirmed by GC/MS analysis
- D Results are reported from a diluted aliquot of the sample
- F Estimated Value
- H Analytical holding time was exceeded
- K Analyte present. Reported value may be biased high. Actual value is expected to be lower.
- L Analyte present. Reported value may be biased low. Actual value is expected to be higher.
- M M if above MDC and less than LLD

GEL LABORATORIES LLC

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QC Summary

Workorder: 485412

Page 2 of

Parmname	NOM	Sample	Qual	QC	Units	RPD%	REC%	Range	Anlst	Date	Time
M											
Matrix Related Failure											
N/A											
RPD or %Recovery limits do not apply.											
N1											
See case narrative											
ND											
Analyte concentration is not detected above the detection limit											
NJ											
Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier											
Q											
One or more quality control criteria have not been met. Refer to the applicable narrative or DER.											
R											
Sample results are rejected											
U											
Analyte was analyzed for, but not detected above the CRDL.											
UI											
Gamma Spectroscopy--Uncertain identification											
UJ											
Gamma Spectroscopy--Uncertain identification											
UL											
Not considered detected. The associated number is the reported concentration, which may be inaccurate due to a low bias.											
X											
Consult Case Narrative, Data Summary package, or Project Manager concerning this qualifier											
Y											
QC Samples were not spiked with this compound											
^											
RPD of sample and duplicate evaluated using +/-RL. Concentrations are <5X the RL. Qualifier Not Applicable for Radiochemistry.											
h											
Preparation or preservation holding time was exceeded											

N/A indicates that spike recovery limits do not apply when sample concentration exceeds spike conc. by a factor of 4 or more or %RPD not applicable.

^ The Relative Percent Difference (RPD) obtained from the sample duplicate (DUP) is evaluated against the acceptance criteria when the sample is greater than five times (5X) the contract required detection limit (RL). In cases where either the sample or duplicate value is less than 5X the RL, a control limit of +/- the RL is used to evaluate the DUP result.

* Indicates that a Quality Control parameter was not within specifications.

For PS, PSD, and SDILT results, the values listed are the measured amounts, not final concentrations.

Where the analytical method has been performed under NELAP certification, the analysis has met all of the requirements of the NELAC standard unless qualified on the QC Summary.

Tab F

Laboratory Analytical Reports – Accelerated Monitoring

Tab F1

Laboratory Analytical Reports – Accelerated Monitoring

August 2019



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: August Ground Water 2019
Lab Sample ID: 1908182-001
Client Sample ID: MW-11_08052019
Collection Date: 8/5/2019 1150h
Received Date: 8/7/2019 1539h

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Manganese	mg/L	8/16/2019 1351h	8/16/2019 2009h	E200.8	0.0100	0.202	

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web: www.awal-labs.com

Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client:	Energy Fuels Resources, Inc.	Contact: Tanner Holliday
Project:	August Ground Water 2019	
Lab Sample ID:	1908182-002	
Client Sample ID:	MW-25_08062019	
Collection Date:	8/6/2019 1050h	
Received Date:	8/7/2019 1539h	

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Cadmium	mg/L	8/16/2019 1351h	8/16/2019 2012h	E200.8	0.000500	0.00137	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: August Ground Water 2019
Lab Sample ID: 1908182-003
Client Sample ID: MW-26_08062019
Collection Date: 8/6/2019 1230h
Received Date: 8/7/2019 1539h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	8/15/2019 947h	8/15/2019 1321h	E350.1	0.0500	0.164	
Chloride	mg/L		8/13/2019 2231h	E300.0	1.00	83.5	
Nitrate/Nitrite (as N)	mg/L		8/7/2019 1848h	E353.2	0.100	3.10	

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: August Ground Water 2019
Lab Sample ID: 1908182-003A
Client Sample ID: MW-26_08062019
Collection Date: 8/6/2019 1230h
Received Date: 8/7/2019 1539h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 8/8/2019 1258h

Units: µg/L **Dilution Factor:** 100 **Method:** SW8260C

3440 South 700 West
Salt Lake City, UT 84119

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Chloroform	67-66-3	100	1,090	~

Phone: (801) 263-8686

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	5,090	5,000	102	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	4,960	5,000	99.1	80-152	
Surr: Dibromofluoromethane		1868-53-7	4,990	5,000	99.7	72-135	
Surr: Toluene-d8		2037-26-5	5,140	5,000	103	80-124	

~ - The reporting limits were raised due to high analyte concentrations.

Analyzed: 8/8/2019 1139h

Units: µg/L **Dilution Factor:** 1 **Method:** SW8260C

Kyle F. Gross
Laboratory Director

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	1.12	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Jose Rocha
QA Officer

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	51.1	50.00	102	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	53.2	50.00	106	80-152	
Surr: Dibromofluoromethane		1868-53-7	51.0	50.00	102	72-135	
Surr: Toluene-d8		2037-26-5	51.4	50.00	103	80-124	



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: August Ground Water 2019
Lab Sample ID: 1908182-004
Client Sample ID: MW-30_08062019
Collection Date: 8/6/2019 1035h
Received Date: 8/7/2019 1539h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Selenium	mg/L	8/16/2019 1351h	8/16/2019 2016h	E200.8	0.00500	0.0509	
Uranium	mg/L	8/16/2019 1351h	8/16/2019 2204h	E200.8	0.000300	0.00939	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: August Ground Water 2019
Lab Sample ID: 1908182-004
Client Sample ID: MW-30_08062019
Collection Date: 8/6/2019 1035h
Received Date: 8/7/2019 1539h

Contact: Tanner Holliday

Analytical Results

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Chloride	mg/L		8/13/2019 2321h	E300.0	2.00	190	
Nitrate/Nitrite (as N)	mg/L		8/7/2019 1855h	E353.2	0.100	15.8	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: August Ground Water 2019
Lab Sample ID: 1908182-005
Client Sample ID: MW-31_08052019
Collection Date: 8/5/2019 1340h
Received Date: 8/7/2019 1539h

Contact: Tanner Holliday

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		8/13/2019 2338h	E300.0	5.00	372	^
Nitrate/Nitrite (as N)	mg/L		8/7/2019 1857h	E353.2	0.100	17.0	

^ - Reissue of a previously generated report. Information has been added, updated, or revised. Information herein supersedes that of the previously issued reports.

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: August Ground Water 2019
Lab Sample ID: 1908182-006
Client Sample ID: MW-65_08062019
Collection Date: 8/6/2019 1035h
Received Date: 8/7/2019 1539h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Selenium	mg/L	8/16/2019 1351h	8/16/2019 2019h	E200.8	0.00500	0.0507	
Uranium	mg/L	8/16/2019 1351h	8/16/2019 2208h	E200.8	0.000300	0.00935	

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INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: August Ground Water 2019
Lab Sample ID: 1908182-006
Client Sample ID: MW-65_08062019
Collection Date: 8/6/2019 1035h
Received Date: 8/7/2019 1539h

Contact: Tanner Holliday

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		8/13/2019 2354h	E300.0	2.00	189	^
Nitrate/Nitrite (as N)	mg/L		8/7/2019 1858h	E353.2	0.100	16.2	

^ - Reissue of a previously generated report. Information has been added, updated, or revised. Information herein supersedes that of the previously issued reports.

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ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: August Ground Water 2019
Lab Sample ID: 1908182-007A
Client Sample ID: Trip Blank
Collection Date: 8/6/2019 1230h
Received Date: 8/7/2019 1539h

Contact: Tanner Holliday

Test Code: 8260-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260C/5030C

Analyzed: 8/8/2019 1119h

Units: µg/L

Dilution Factor: 1

Method: SW8260C

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Compound	CAS Number	Reporting Limit	Analytical Result	Qual
2-Butanone	78-93-3	20.0	< 20.0	
Acetone	67-64-1	20.0	< 20.0	
Benzene	71-43-2	1.00	< 1.00	
Carbon tetrachloride	56-23-5	1.00	< 1.00	
Chloroform	67-66-3	1.00	< 1.00	
Chloromethane	74-87-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	
Naphthalene	91-20-3	1.00	< 1.00	
Tetrahydrofuran	109-99-9	1.00	< 1.00	
Toluene	108-88-3	1.00	< 1.00	
Xylenes, Total	1330-20-7	1.00	< 1.00	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	49.8	50.00	99.6	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	52.4	50.00	105	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.1	50.00	98.3	72-135	
Surr: Toluene-d8		2037-26-5	50.5	50.00	101	80-124	



Tanner Holliday
Energy Fuels Resources, Inc.
6425 South Hwy 191
Blanding, UT 84511
TEL: (435) 678-2221

RE: August Ground Water 2019

Dear Tanner Holliday:

Lab Set ID: 1908182

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American West Analytical Laboratories received sample(s) on 8/7/2019 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

8/22/2019: This is a revision to a report originally issued 8/20/2019. Information herein supersedes that of the previously issued reports. Pages 1, 2, 13-14, and 23-26 have been revised. The test code and method have been corrected.

9/6/2019: Pages 1, 11, and 12 have been revised. The Chloride analytical results have been corrected.

Thank You,

Approved by:

**Jose G.
Rocha**
Digitally signed by Jose G. Rocha
DN: cn=Jose G. Rocha,
o=American West Analytical
Laboratories, ou,
email=jose@awal-labs.com,
c=US
Date: 2019.09.06 14:20:19
-06'00'

Laboratory Director or designee



SAMPLE SUMMARY

Client: Energy Fuels Resources, Inc.
Project: August Ground Water 2019
Lab Set ID: 1908182
Date Received: 8/7/2019 1539h

Contact: Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1908182-001E	MW-11_08052019	8/5/2019 1150h	Aqueous	ICPMS Metals, Dissolved
1908182-002E	MW-25_08062019	8/6/2019 1050h	Aqueous	ICPMS Metals, Dissolved
1908182-003A	MW-26_08062019	8/6/2019 1230h	Aqueous	VOA by GC/MS Method 8260C/5030C
1908182-003B	MW-26_08062019	8/6/2019 1230h	Aqueous	Anions, E300.0
1908182-003D	MW-26_08062019	8/6/2019 1230h	Aqueous	Ammonia, Aqueous
1908182-003D	MW-26_08062019	8/6/2019 1230h	Aqueous	Nitrite/Nitrate (as N), E353.2
1908182-004B	MW-30_08062019	8/6/2019 1035h	Aqueous	Anions, E300.0
1908182-004D	MW-30_08062019	8/6/2019 1035h	Aqueous	Nitrite/Nitrate (as N), E353.2
1908182-004E	MW-30_08062019	8/6/2019 1035h	Aqueous	ICPMS Metals, Dissolved
1908182-005A	MW-31_08052019	8/5/2019 1340h	Aqueous	Anions, E300.0
1908182-005B	MW-31_08052019	8/5/2019 1340h	Aqueous	Nitrite/Nitrate (as N), E353.2
1908182-006A	MW-65_08062019	8/6/2019 1035h	Aqueous	Anions, E300.0
1908182-006B	MW-65_08062019	8/6/2019 1035h	Aqueous	Nitrite/Nitrate (as N), E353.2
1908182-006C	MW-65_08062019	8/6/2019 1035h	Aqueous	ICPMS Metals, Dissolved
1908182-007A	Trip Blank	8/6/2019 1230h	Aqueous	VOA by GC/MS Method 8260C/5030C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



Inorganic Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Tanner Holliday
Project: August Ground Water 2019
Lab Set ID: 1908182

3440 South 700 West
Salt Lake City, UT 84119

Sample Receipt Information:

Date of Receipt: 8/7/2019
Date(s) of Collection: 8/5-8/6/2019
Sample Condition: Intact
C-O-C Discrepancies: None

Holding Time and Preservation Requirements: The analysis and preparation of all samples were performed within the method holding times. All samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD:

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions:

Sample ID	Analyte	QC	Explanation
1908182-003D	Ammonia	MS/MSD	Sample matrix interference

Duplicate (DUP): The parameters that required a duplicate analysis had RPDs within the control limits.

Corrective Action: None required.



Volatile Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Tanner Holliday
Project: August Ground Water 2019
Lab Set ID: 1908182

Sample Receipt Information:

Date of Receipt:	8/7/2019
Date(s) of Collection:	8/5-8/6/2019
Sample Condition:	Intact
C-O-C Discrepancies:	None
Method:	SW-846 8260C/5030C
Analysis:	Volatile Organic Compounds

General Set Comments: Multiple target analytes were observed above reporting limits.

Holding Time and Preservation Requirements: All samples were received in appropriate containers and properly preserved. The analysis and preparation of all samples were performed within the method holding times following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks (MBs): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCSs): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.

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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-64522	Date Analyzed: 08/16/2019 2006h												
Test Code: 200.8-DIS	Date Prepared: 08/16/2019 1351h												
Cadmium	0.193	mg/L	E200.8	0.0000858	0.000500	0.2000	0	96.4	85 - 115				
Manganese	0.195	mg/L	E200.8	0.00108	0.00200	0.2000	0	97.5	85 - 115				
Selenium	0.193	mg/L	E200.8	0.000574	0.00200	0.2000	0	96.3	85 - 115				
Uranium	0.195	mg/L	E200.8	0.000176	0.00200	0.2000	0	97.5	85 - 115				



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QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-64522	Date Analyzed:	08/16/2019	2003h										
Test Code:	200.8-DIS	Date Prepared:	08/16/2019	1351h									
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Manganese	< 0.00200	mg/L	E200.8	0.00108	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Lab Sample ID: MB-64522	Date Analyzed:	08/16/2019	2201h										
Test Code:	200.8-DIS	Date Prepared:	08/16/2019	1351h									
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1908182-006CMS	Date Analyzed:		08/16/2019 2028h										
Test Code: 200.8-DIS	Date Prepared:		08/16/2019 1351h										
Cadmium	0.197	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000129	98.4	75 - 125				
Manganese	0.212	mg/L	E200.8	0.00108	0.00200	0.2000	0.0106	101	75 - 125				
Selenium	0.243	mg/L	E200.8	0.000574	0.00200	0.2000	0.0507	96.4	75 - 125				
Uranium	0.211	mg/L	E200.8	0.000176	0.00200	0.2000	0.00935	101	75 - 125				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1908182-006CMSD	Date Analyzed:		08/16/2019 2031h										
Test Code: 200.8-DIS	Date Prepared:		08/16/2019 1351h										
Cadmium	0.192	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000129	96.1	75 - 125	0.197	2.36	20	
Manganese	0.208	mg/L	E200.8	0.00108	0.00200	0.2000	0.0106	98.7	75 - 125	0.212	2.00	20	
Selenium	0.243	mg/L	E200.8	0.000574	0.00200	0.2000	0.0507	96.1	75 - 125	0.243	0.261	20	
Uranium	0.206	mg/L	E200.8	0.000176	0.00200	0.2000	0.00935	98.3	75 - 125	0.211	2.61	20	



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-R129157	Date Analyzed: 08/13/2019 1326h												
Test Code: 300.0-W													
Chloride	5.39	mg/L	E300.0	0.0386	0.100	5.000	0	108	90 - 110				
Lab Sample ID: LCS-64488	Date Analyzed: 08/15/2019 1320h												
Test Code: NH3-W-350.1	Date Prepared: 08/15/2019 947h												
Ammonia (as N)	9.78	mg/L	E350.1	0.0492	0.0500	10.00	0	97.8	90 - 110				
Lab Sample ID: LCS-R128917	Date Analyzed: 08/07/2019 1842h												
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.03	mg/L	E353.2	0.00363	0.0100	1.000	0	103	90 - 110				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-R129157	Date Analyzed:	08/14/2019	1002h										
Test Code:	300.0-W												
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Lab Sample ID: MB-64488	Date Analyzed:	08/15/2019	1319h										
Test Code:	NH3-W-350.1	Date Prepared:	08/15/2019	947h									
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
Lab Sample ID: MB-R128917	Date Analyzed:	08/07/2019	1840h										
Test Code:	NO2/NO3-W-353.2												
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1908182-003BMS													
Date Analyzed: 08/13/2019 2248h													
Test Code: 300.0-W													
Chloride	191	mg/L	E300.0	0.772	2.00	100.0	83.5	108	90 - 110				
Lab Sample ID: 1908182-003DMS													
Date Analyzed: 08/15/2019 1322h													
Test Code: NH3-W-350.1													
Date Prepared: 08/15/2019 947h													
Ammonia (as N)	14.4	mg/L	E350.1	0.0492	0.0500	10.00	0.164	142	90 - 110				1
Lab Sample ID: 1908182-003DMS													
Date Analyzed: 08/07/2019 1849h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	13.1	mg/L	E353.2	0.0363	0.100	10.00	3.1	100	90 - 110				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1908182-003BMSD Date Analyzed: 08/13/2019 2304h													
Test Code: 300.0-W													
Chloride	193	mg/L	E300.0	0.772	2.00	100.0	83.5	109	90 - 110	191	0.681	20	
Lab Sample ID: 1908182-003DMSD Date Analyzed: 08/15/2019 1322h													
Test Code: NH3-W-350.1 Date Prepared: 08/15/2019 947h													
Ammonia (as N)	13.6	mg/L	E350.1	0.0492	0.0500	10.00	0.164	135	90 - 110	14.4	5.36	10	1
Lab Sample ID: 1908182-003DMSD Date Analyzed: 08/07/2019 1851h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	13.2	mg/L	E353.2	0.0363	0.100	10.00	3.1	101	90 - 110	13.1	0.456	10	

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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Jose Rocha
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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC-1 080819A		Date Analyzed: 08/08/2019 1017h											
Test Code: 8260-W-DEN100													
2-Butanone	36.0	µg/L	SW8260C	1.31	20.0	20.00	0	180	74 - 200				
Acetone	49.2	µg/L	SW8260C	2.87	20.0	20.00	0	246	70 - 350				
Benzene	22.3	µg/L	SW8260C	0.147	1.00	20.00	0	112	82 - 132				
Carbon tetrachloride	22.1	µg/L	SW8260C	0.262	1.00	20.00	0	111	77 - 143				
Chloroform	21.5	µg/L	SW8260C	0.166	1.00	20.00	0	107	85 - 124				
Chloromethane	16.7	µg/L	SW8260C	0.832	1.00	20.00	0	83.4	30 - 149				
Methylene chloride	22.4	µg/L	SW8260C	0.448	1.00	20.00	0	112	65 - 154				
Naphthalene	19.5	µg/L	SW8260C	0.704	1.00	20.00	0	97.6	62 - 129				
Tetrahydrofuran	20.8	µg/L	SW8260C	0.436	1.00	20.00	0	104	59 - 135				
Toluene	20.9	µg/L	SW8260C	0.177	1.00	20.00	0	104	69 - 129				
Xylenes, Total	64.7	µg/L	SW8260C	0.253	1.00	60.00	0	108	66 - 124				
Surr: 1,2-Dichloroethane-d4	50.3	µg/L	SW8260C			50.00		101	80 - 136				
Surr: 4-Bromofluorobenzene	49.2	µg/L	SW8260C			50.00		98.5	85 - 121				
Surr: Dibromofluoromethane	50.6	µg/L	SW8260C			50.00		101	78 - 132				
Surr: Toluene-d8	49.3	µg/L	SW8260C			50.00		98.6	81 - 123				



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC-1 080819A Date Analyzed: 08/08/2019 1057h													
Test Code: 8260-W-DEN100													
2-Butanone	< 20.0	µg/L	SW8260C	1.31	20.0								
Acetone	< 20.0	µg/L	SW8260C	2.87	20.0								
Benzene	< 1.00	µg/L	SW8260C	0.147	1.00								
Carbon tetrachloride	< 1.00	µg/L	SW8260C	0.262	1.00								
Chloroform	< 1.00	µg/L	SW8260C	0.166	1.00								
Chloromethane	< 1.00	µg/L	SW8260C	0.832	1.00								
Methylene chloride	< 1.00	µg/L	SW8260C	0.448	1.00								
Naphthalene	< 1.00	µg/L	SW8260C	0.704	1.00								
Tetrahydrofuran	< 1.00	µg/L	SW8260C	0.436	1.00								
Toluene	< 1.00	µg/L	SW8260C	0.177	1.00								
Xylenes, Total	< 1.00	µg/L	SW8260C	0.253	1.00								
Surr: 1,2-Dichloroethane-d4	50.5	µg/L	SW8260C			50.00		101	80 - 136				
Surr: 4-Bromofluorobenzene	50.5	µg/L	SW8260C			50.00		101	85 - 121				
Surr: Dibromofluoromethane	49.7	µg/L	SW8260C			50.00		99.5	78 - 132				
Surr: Toluene-d8	51.2	µg/L	SW8260C			50.00		102	81 - 123				



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1908182-003AMS													
Date Analyzed: 08/08/2019 1318h													
Test Code: 8260-W-DEN100													
2-Butanone	2,960	µg/L	SW8260C	131	2,000	2,000	0	148	74 - 200				
Acetone	3,060	µg/L	SW8260C	287	2,000	2,000	0	153	70 - 350				
Benzene	2,260	µg/L	SW8260C	14.7	100	2,000	0	113	82 - 132				
Carbon tetrachloride	2,230	µg/L	SW8260C	26.2	100	2,000	0	112	77 - 143				
Chloroform	3,300	µg/L	SW8260C	16.6	100	2,000	1090	111	85 - 124				
Chloromethane	1,600	µg/L	SW8260C	83.2	100	2,000	0	80.1	30 - 149				
Methylene chloride	2,260	µg/L	SW8260C	44.8	100	2,000	1.12	113	65 - 154				
Naphthalene	2,020	µg/L	SW8260C	70.4	100	2,000	0	101	62 - 129				
Tetrahydrofuran	2,140	µg/L	SW8260C	43.6	100	2,000	0	107	59 - 135				
Toluene	2,100	µg/L	SW8260C	17.7	100	2,000	0	105	69 - 129				
Xylenes, Total	6,410	µg/L	SW8260C	25.3	100	6,000	0	107	66 - 124				
Surr: 1,2-Dichloroethane-d4	5,080	µg/L	SW8260C			5,000		102	80 - 136				
Surr: 4-Bromofluorobenzene	4,810	µg/L	SW8260C			5,000		96.2	85 - 121				
Surr: Dibromofluoromethane	5,070	µg/L	SW8260C			5,000		101	78 - 132				
Surr: Toluene-d8	4,930	µg/L	SW8260C			5,000		98.6	81 - 123				



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1908182
Project: August Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1908182-003AMSD													
Date Analyzed: 08/08/2019 1338h													
Test Code: 8260-W-DEN100													
2-Butanone	2,990	µg/L	SW8260C	131	2,000	2,000	0	149	74 - 200	2960	0.942	35	
Acetone	2,900	µg/L	SW8260C	287	2,000	2,000	0	145	70 - 350	3060	5.07	35	
Benzene	2,290	µg/L	SW8260C	14.7	100	2,000	0	114	82 - 132	2260	1.19	35	
Carbon tetrachloride	2,310	µg/L	SW8260C	26.2	100	2,000	0	116	77 - 143	2230	3.57	35	
Chloroform	3,370	µg/L	SW8260C	16.6	100	2,000	1090	114	85 - 124	3310	1.92	35	
Chloromethane	1,690	µg/L	SW8260C	83.2	100	2,000	0	84.4	30 - 149	1600	5.35	35	
Methylene chloride	2,300	µg/L	SW8260C	44.8	100	2,000	1.12	115	65 - 154	2260	1.58	35	
Naphthalene	2,040	µg/L	SW8260C	70.4	100	2,000	0	102	62 - 129	2020	1.08	35	
Tetrahydrofuran	2,150	µg/L	SW8260C	43.6	100	2,000	0	108	59 - 135	2140	0.419	35	
Toluene	2,150	µg/L	SW8260C	17.7	100	2,000	0	107	69 - 129	2100	2.07	35	
Xylenes, Total	6,630	µg/L	SW8260C	25.3	100	6,000	0	111	66 - 124	6410	3.37	35	
Surr: 1,2-Dichloroethane-d4	5,070	µg/L	SW8260C			5,000		101	80 - 136				
Surr: 4-Bromofluorobenzene	4,800	µg/L	SW8260C			5,000		95.9	85 - 121				
Surr: Dibromofluoromethane	4,990	µg/L	SW8260C			5,000		99.8	78 - 132				
Surr: Toluene-d8	4,850	µg/L	SW8260C			5,000		97.1	81 - 123				

WORK ORDER Summary

Work Order: **1908182**

Page 1 of 2

Client: Energy Fuels Resources, Inc.

Due Date: 8/21/2019

Client ID: ENE300

Contact: Garrin Palmer

Project: August Ground Water 2019

QC Level: III

WO Type: Project

Comments: QC 3 (no chromatograms). EDD-Denison. CC Tanner Holliday & KWeinel@energyfuels.com.;

VNS

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1908182-001E	MW-11_08052019	8/5/2019 1150h	8/7/2019 1539h	200.8-DIS <i>1 SEL Analytes: MN</i> 200.8-DIS-PR	Aqueous	<input checked="" type="checkbox"/>	DF-Metals	1
1908182-002E	MW-25_08062019	8/6/2019 1050h	8/7/2019 1539h	200.8-DIS <i>1 SEL Analytes: CD</i> 200.8-DIS-PR	Aqueous	<input checked="" type="checkbox"/>	DF-Metals	1
1908182-003A	MW-26_08062019	8/6/2019 1230h	8/7/2019 1539h	8260D-W-DEN100 <i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3
1908182-003B				300.0-W <i>1 SEL Analytes: CL</i>		<input checked="" type="checkbox"/>	DF-WC	1
1908182-003D				NH3-W-350.1 <i>1 SEL Analytes: NH3N</i> NH3-W-PR NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		<input checked="" type="checkbox"/>	DF-NO2/NO3	
1908182-004B	MW-30_08062019	8/6/2019 1035h	8/7/2019 1539h	300.0-W <i>1 SEL Analytes: CL</i>	Aqueous	<input checked="" type="checkbox"/>	DF-WC	1
1908182-004D				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		<input checked="" type="checkbox"/>	DF-NO2/NO3	
1908182-004E				200.8-DIS <i>2 SEL Analytes: SE U</i> 200.8-DIS-PR		<input checked="" type="checkbox"/>	DF-Metals	
1908182-005A	MW-31_08052019	8/5/2019 1340h	8/7/2019 1539h	300.0-W <i>1 SEL Analytes: CL</i>	Aqueous	<input checked="" type="checkbox"/>	DF-WC	1
1908182-005B				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>		<input checked="" type="checkbox"/>	DF-NO2/NO3	
1908182-006A	MW-65_08062019	8/6/2019 1035h	8/7/2019 1539h	300.0-W <i>1 SEL Analytes: CL</i>	Aqueous	<input checked="" type="checkbox"/>	DF-WC	1

WORK ORDER Summary

Work Order: **1908182** Page 2 of 2

Client: Energy Fuels Resources, Inc.

Due Date: 8/21/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1908182-006B	MW-65_08062019	8/6/2019 1035h	8/7/2019 1539h	NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>	Aqueous	<input checked="" type="checkbox"/>	DF-NO2/NO3	1
1908182-006C				200.8-DIS <i>2 SEL Analytes: SE U</i> 200.8-DIS-PR		<input checked="" type="checkbox"/>	DF-Metals	
1908182-007A	Trip Blank	8/6/2019 1230h	8/7/2019 1539h	8260D-W-DEN100 <i>Test Group: 8260D-W-DEN100; # of Analytes: 11 / # of Surr: 4</i>	Aqueous	<input checked="" type="checkbox"/>	VOCFridge	3

Tab F2

Laboratory Analytical Reports – Accelerated Monitoring

September 2019



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Sample ID: 1909661-001
Client Sample ID: MW-11_09242019
Collection Date: 9/24/2019 1155h
Received Date: 9/26/2019 1030h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Manganese	mg/L	10/2/2019 1318h	10/2/2019 2219h	E200.8	0.0100	0.174	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Sample ID: 1909661-002
Client Sample ID: MW-25_09232019
Collection Date: 9/23/2019 1120h
Received Date: 9/26/2019 1030h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Cadmium	mg/L	10/2/2019 1318h	10/15/2019 1522h	E200.8	0.000500	0.00138	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc. **Contact:** Tanner Holliday
Project: September Ground Water 2019
Lab Sample ID: 1909661-003
Client Sample ID: MW-26_09242019
Collection Date: 9/24/2019 930h
Received Date: 9/26/2019 1030h

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Ammonia (as N)	mg/L	10/4/2019 1041h	10/4/2019 1625h	E350.1	0.0500	0.496	1
Chloride	mg/L		10/4/2019 209h	E300.0	2.00	62.1	
Nitrate/Nitrite (as N)	mg/L		9/27/2019 855h	E353.2	0.100	1.59	

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

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Laboratory Director

Jose Rocha
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ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Sample ID: 1909661-003C
Client Sample ID: MW-26_09242019
Collection Date: 9/24/2019 930h
Received Date: 9/26/2019 1030h

Contact: Tanner Holliday

Test Code: 8260D-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260D/5030C

Analyzed: 9/27/2019 1416h **Extracted:**
Units: µg/L **Dilution Factor:** 20 **Method:** SW8260D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Chloroform	67-66-3	20.0	1,540	~

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	989	1,000	98.9	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	1,010	1,000	101	80-152	
Surr: Dibromofluoromethane		1868-53-7	1,010	1,000	101	72-135	
Surr: Toluene-d8		2037-26-5	1,010	1,000	101	80-124	

^ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

~ - The reporting limits were raised due to high analyte concentrations.

Analyzed: 9/27/2019 1237h **Extracted:**
Units: µg/L **Dilution Factor:** 1 **Method:** SW8260D

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Methylene chloride	75-09-2	1.00	3.35	

Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	49.9	50.00	99.8	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	50.6	50.00	101	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.9	50.00	99.8	72-135	
Surr: Toluene-d8		2037-26-5	50.8	50.00	102	80-124	

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Jose Rocha
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INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Sample ID: 1909661-004
Client Sample ID: MW-30_09242019
Collection Date: 9/24/2019 1035h
Received Date: 9/26/2019 1030h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

<u>Compound</u>	<u>Units</u>	<u>Date Prepared</u>	<u>Date Analyzed</u>	<u>Method Used</u>	<u>Reporting Limit</u>	<u>Analytical Result</u>	<u>Qual</u>
Selenium	mg/L	10/2/2019 1318h	10/2/2019 2232h	E200.8	0.00500	0.0491	
Uranium	mg/L	10/2/2019 1318h	10/3/2019 144h	E200.8	0.000300	0.00812	

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Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Sample ID: 1909661-004
Client Sample ID: MW-30_09242019
Collection Date: 9/24/2019 1035h
Received Date: 9/26/2019 1030h

Contact: Tanner Holliday

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		10/4/2019 300h	E300.0	2.00	176	
Nitrate/Nitrite (as N)	mg/L		9/27/2019 838h	E353.2	0.100	17.9	

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QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Sample ID: 1909661-005
Client Sample ID: MW-31_09232019
Collection Date: 9/23/2019 1320h
Received Date: 9/26/2019 1030h

Contact: Tanner Holliday

Analytical Results

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Chloride	mg/L		10/4/2019 317h	E300.0	5.00	365	
Nitrate/Nitrite (as N)	mg/L		9/27/2019 1233h	E353.2	0.100	19.5	

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Kyle F. Gross

Laboratory Director

Jose Rocha

QA Officer



INORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Sample ID: 1909661-006
Client Sample ID: MW-65_09242019
Collection Date: 9/24/2019 1155h
Received Date: 9/26/2019 1030h

Contact: Tanner Holliday

Analytical Results

DISSOLVED METALS

Compound	Units	Date Prepared	Date Analyzed	Method Used	Reporting Limit	Analytical Result	Qual
Manganese	mg/L	10/2/2019 1318h	10/2/2019 2235h	E200.8	0.0100	0.181	

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



ORGANIC ANALYTICAL REPORT

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Sample ID: 1909661-007A
Client Sample ID: Trip Blank
Collection Date: 9/24/2019 930h
Received Date: 9/26/2019 1030h

Contact: Tanner Holliday

Test Code: 8260D-W-DEN100

Analytical Results

VOAs by GC/MS Method 8260D/5030C

Analyzed: 9/27/2019 1257h **Extracted:**
Units: µg/L **Dilution Factor:** 1 **Method:** SW8260D

3440 South 700 West
 Salt Lake City, UT 84119

Compound	CAS Number	Reporting Limit	Analytical Result	Qual
Chloroform	67-66-3	1.00	< 1.00	
Methylene chloride	75-09-2	1.00	< 1.00	

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Surrogate	Units: µg/L	CAS	Result	Amount Spiked	% REC	Limits	Qual
Surr: 1,2-Dichloroethane-d4		17060-07-0	50.2	50.00	100	72-151	
Surr: 4-Bromofluorobenzene		460-00-4	51.1	50.00	102	80-152	
Surr: Dibromofluoromethane		1868-53-7	49.1	50.00	98.1	72-135	
Surr: Toluene-d8		2037-26-5	50.0	50.00	100	80-124	

Kyle F. Gross
 Laboratory Director

Jose Rocha
 QA Officer



Tanner Holliday
Energy Fuels Resources, Inc.
6425 South Hwy 191
Blanding, UT 84511
TEL: (435) 678-2221

RE: September Ground Water 2019

Dear Tanner Holliday:

Lab Set ID: 1909661

3440 South 700 West

Salt Lake City, UT 84119

American West Analytical Laboratories received sample(s) on 9/26/2019 for the analyses presented in the following report.

American West Analytical Laboratories (AWAL) is accredited by The National Environmental Laboratory Accreditation Program (NELAP) in Utah and Texas; and is state accredited in Colorado, Idaho, New Mexico, Wyoming, and Missouri.

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All analyses were performed in accordance to the NELAP protocols unless noted otherwise. Accreditation scope documents are available upon request. If you have any questions or concerns regarding this report please feel free to call.

web: www.awal-labs.com

The abbreviation "Surr" found in organic reports indicates a surrogate compound that is intentionally added by the laboratory to determine sample injection, extraction, and/or purging efficiency. The "Reporting Limit" found on the report is equivalent to the practical quantitation limit (PQL). This is the minimum concentration that can be reported by the method referenced and the sample matrix. The reporting limit must not be confused with any regulatory limit. Analytical results are reported to three significant figures for quality control and calculation purposes.

Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

Thank You,

Approved by:

**Jose G.
Rocha**

Digitally signed by Jose G. Rocha
DN: cn=Jose G. Rocha,
o=American West Analytical
Laboratories, ou=UT00031,
email=jose@awal-labs.com,
c=US
Date: 2019.10.17 15:19:26
-06'00'

Laboratory Director or designee



SAMPLE SUMMARY

Client: Energy Fuels Resources, Inc.
Project: September Ground Water 2019
Lab Set ID: 1909661
Date Received: 9/26/2019 1030h

Contact: Tanner Holliday

Lab Sample ID	Client Sample ID	Date Collected	Matrix	Analysis
1909661-001A	MW-11_09242019	9/24/2019 1155h	Aqueous	ICPMS Metals, Dissolved
1909661-002A	MW-25_09232019	9/23/2019 1120h	Aqueous	ICPMS Metals, Dissolved
1909661-003A	MW-26_09242019	9/24/2019 930h	Aqueous	Ammonia, Aqueous
1909661-003A	MW-26_09242019	9/24/2019 930h	Aqueous	Nitrite/Nitrate (as N), E353.2
1909661-003B	MW-26_09242019	9/24/2019 930h	Aqueous	Anions, E300.0
1909661-003C	MW-26_09242019	9/24/2019 930h	Aqueous	VOA by GC/MS Method 8260D/5030C
1909661-004A	MW-30_09242019	9/24/2019 1035h	Aqueous	Nitrite/Nitrate (as N), E353.2
1909661-004B	MW-30_09242019	9/24/2019 1035h	Aqueous	Anions, E300.0
1909661-004C	MW-30_09242019	9/24/2019 1035h	Aqueous	ICPMS Metals, Dissolved
1909661-005A	MW-31_09232019	9/23/2019 1320h	Aqueous	Nitrite/Nitrate (as N), E353.2
1909661-005B	MW-31_09232019	9/23/2019 1320h	Aqueous	Anions, E300.0
1909661-006A	MW-65_09242019	9/24/2019 1155h	Aqueous	ICPMS Metals, Dissolved
1909661-007A	Trip Blank	9/24/2019 930h	Aqueous	VOA by GC/MS Method 8260D/5030C

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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer



Inorganic Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Tanner Holliday
Project: September Ground Water 2019
Lab Set ID: 1909661

3440 South 700 West
Salt Lake City, UT 84119

Sample Receipt Information:

Date of Receipt: 9/26/2019
Date(s) of Collection: 9/23-9/24/2019
Sample Condition: Intact
C-O-C Discrepancies: None

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Holding Time and Preservation Requirements: The analysis and preparation of all samples were performed within the method holding times. All samples were properly preserved.

Preparation and Analysis Requirements: The samples were analyzed following the methods stated on the analytical reports.

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Kyle F. Gross
Laboratory Director

Batch QC Requirements: MB, LCS, MS, MSD, RPD:

Jose Rocha
QA Officer

Method Blanks (MB): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Samples (LCS): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicates (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exceptions: the MS and MSD percent recoveries for Ammonia on sample 1909661-003A were outside of the control limits due to sample matrix interference.

Corrective Action: None required.



American West
ANALYTICAL LABORATORIES

Volatile Case Narrative

Client: Energy Fuels Resources, Inc.
Contact: Tanner Holliday
Project: September Ground Water 2019
Lab Set ID: 1909661

3440 South 700 West
Salt Lake City, UT 84119

Sample Receipt Information:

Date of Receipt: 9/26/2019
Date(s) of Collection: 9/23-9/24/2019
Sample Condition: Intact
C-O-C Discrepancies: None
Method: SW-846 8260D/5030C
Analysis: Tetrahydrofuran

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General Set Comments: Multiple target analytes were observed above reporting limits.

Holding Time and Preservation Requirements: All samples were received in appropriate containers and properly preserved. The analysis and preparation of all samples were performed within the method holding times following the methods stated on the analytical reports.

Kyle F. Gross
Laboratory Director

Analytical QC Requirements: All instrument calibration and calibration check requirements were met. All internal standard recoveries met method criterion.

Jose Rocha
QA Officer

Batch QC Requirements: MB, LCS, MS, MSD, RPD, and Surrogates:

Method Blanks (MBs): No target analytes were detected above reporting limits, indicating that the procedure was free from contamination.

Laboratory Control Sample (LCSs): All LCS recoveries were within control limits, indicating that the preparation and analysis were in control.

Matrix Spike / Matrix Spike Duplicate (MS/MSD): All percent recoveries and RPDs (Relative Percent Differences) were inside established limits, with the following exception: the MSD percent recovery for Chloroform on samples 1909661-003C was outside of the control limits due to sample matrix interference.

Surrogates: All surrogate recoveries were within established limits.

Corrective Action: None required.



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Kyle F. Gross
Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-65379	Date Analyzed:	10/02/2019	2133h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Manganese	0.193	mg/L	E200.8	0.00108	0.00200	0.2000	0	96.3	85 - 115				
Selenium	0.187	mg/L	E200.8	0.000574	0.00200	0.2000	0	93.4	85 - 115				
Uranium	0.180	mg/L	E200.8	0.000176	0.00200	0.2000	0	90.0	85 - 115				
Lab Sample ID: LCS-65379	Date Analyzed:	10/15/2019	1432h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Cadmium	0.193	mg/L	E200.8	0.0000858	0.000500	0.2000	0	96.4	85 - 115				



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-65379	Date Analyzed:	10/03/2019	140h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Uranium	< 0.000200	mg/L	E200.8	0.0000176	0.000200								
Lab Sample ID: MB-65379	Date Analyzed:	10/02/2019	2130h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Manganese	< 0.00200	mg/L	E200.8	0.00108	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Lab Sample ID: MB-FILTER-65272	Date Analyzed:	10/02/2019	2156h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Manganese	< 0.00200	mg/L	E200.8	0.00108	0.00200								
Selenium	< 0.00200	mg/L	E200.8	0.000574	0.00200								
Uranium	< 0.00200	mg/L	E200.8	0.000176	0.00200								
Lab Sample ID: MB-65379	Date Analyzed:	10/15/2019	1429h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								
Lab Sample ID: MB-FILTER-65272	Date Analyzed:	10/15/2019	1451h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Cadmium	< 0.000500	mg/L	E200.8	0.0000858	0.000500								



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Jose Rocha
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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1909661-001AMS	Date Analyzed:	10/02/2019	2222h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Manganese	0.360	mg/L	E200.8	0.00108	0.00200	0.2000	0.174	92.7	75 - 125				
Selenium	0.184	mg/L	E200.8	0.000574	0.00200	0.2000	0.00147	91.1	75 - 125				
Uranium	0.178	mg/L	E200.8	0.000176	0.00200	0.2000	0.000883	88.4	75 - 125				
Lab Sample ID: 1909661-001AMS	Date Analyzed:	10/15/2019	1516h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Cadmium	0.190	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000106	94.8	75 - 125				



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Jose Rocha
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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: ME
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1909661-001AMSD	Date Analyzed:	10/02/2019	2225h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Manganese	0.361	mg/L	E200.8	0.00108	0.00200	0.2000	0.174	93.3	75 - 125	0.36	0.334	20	
Selenium	0.185	mg/L	E200.8	0.000574	0.00200	0.2000	0.00147	91.8	75 - 125	0.184	0.769	20	
Uranium	0.179	mg/L	E200.8	0.000176	0.00200	0.2000	0.000883	89.1	75 - 125	0.178	0.879	20	
Lab Sample ID: 1909661-001AMSD	Date Analyzed:	10/15/2019	1519h										
Test Code: 200.8-DIS	Date Prepared:	10/02/2019	1318h										
Cadmium	0.189	mg/L	E200.8	0.0000858	0.000500	0.2000	0.000106	94.7	75 - 125	0.19	0.152	20	



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS-R130995 Date Analyzed: 10/04/2019 152h													
Test Code: 300.0-W													
Chloride	5.07	mg/L	E300.0	0.0386	0.100	5.000	0	101	90 - 110				
Lab Sample ID: LCS-65417 Date Analyzed: 10/04/2019 1621h													
Test Code: NH3-W-350.1 Date Prepared: 10/04/2019 1041h													
Ammonia (as N)	9.45	mg/L	E350.1	0.0492	0.0500	10.00	0	94.5	90 - 110				
Lab Sample ID: LCS-R130675 Date Analyzed: 09/27/2019 817h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	1.03	mg/L	E353.2	0.00363	0.0100	1.000	0	103	90 - 110				



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB-R130995	Date Analyzed: 10/04/2019 134h												
Test Code:	300.0-W												
Chloride	< 0.100	mg/L	E300.0	0.0386	0.100								
Lab Sample ID: MB-65417	Date Analyzed: 10/04/2019 1620h												
Test Code:	NH3-W-350.1												
Ammonia (as N)	< 0.0500	mg/L	E350.1	0.0492	0.0500								
Lab Sample ID: MB-R130675	Date Analyzed: 09/27/2019 810h												
Test Code:	NO2/NO3-W-353.2												
Nitrate/Nitrite (as N)	< 0.0100	mg/L	E353.2	0.00363	0.0100								



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Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1909661-003BMS Date Analyzed: 10/04/2019 226h													
Test Code: 300.0-W													
Chloride	163	mg/L	E300.0	0.772	2.00	100.0	62.1	101	90 - 110				
Lab Sample ID: 1909661-003AMS Date Analyzed: 10/04/2019 1626h													
Test Code: NH3-W-350.1 Date Prepared: 10/04/2019 1041h													
Ammonia (as N)	14.9	mg/L	E350.1	0.0492	0.0500	10.00	0.496	144	90 - 110				1
Lab Sample ID: 1909661-004AMS Date Analyzed: 09/27/2019 852h													
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	70.6	mg/L	E353.2	0.182	0.500	50.00	17.9	105	90 - 110				

¹ - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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Laboratory Director

Jose Rocha
QA Officer

QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: WC
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1909661-003BMSD		Date Analyzed:	10/04/2019 243h										
Test Code: 300.0-W													
Chloride	163	mg/L	E300.0	0.772	2.00	100.0	62.1	100	90 - 110	163	0.291	20	
Lab Sample ID: 1909661-003AMSD		Date Analyzed:	10/04/2019 1627h										
Test Code: NH3-W-350.1		Date Prepared:	10/04/2019 1041h										
Ammonia (as N)	14.9	mg/L	E350.1	0.0492	0.0500	10.00	0.496	144	90 - 110	14.9	0.402	10	'
Lab Sample ID: 1909661-004AMSD		Date Analyzed:	09/27/2019 854h										
Test Code: NO2/NO3-W-353.2													
Nitrate/Nitrite (as N)	69.8	mg/L	E353.2	0.182	0.500	50.00	17.9	104	90 - 110	70.6	1.11	10	

' - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: LCS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: LCS VOC-1 092719A	Date Analyzed: 09/27/2019 1048h												
Test Code: 8260D-W-DEN100													
Chloroform	22.0	µg/L	SW8260D	0.166	1.00	20.00	0	110	85 - 124				
Methylene chloride	20.8	µg/L	SW8260D	0.448	1.00	20.00	0	104	65 - 154				
Surr: 1,2-Dichloroethane-d4	49.5	µg/L	SW8260D			50.00		99.0	80 - 136				
Surr: 4-Bromofluorobenzene	49.8	µg/L	SW8260D			50.00		99.7	85 - 121				
Surr: Dibromofluoromethane	49.8	µg/L	SW8260D			50.00		99.7	78 - 132				
Surr: Toluene-d8	51.3	µg/L	SW8260D			50.00		103	81 - 123				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: MBLK

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: MB VOC-1 092719A	Date Analyzed:		09/27/2019 1107h										
Test Code: 8260D-W-DEN100													
Chloroform	< 1.00	µg/L	SW8260D	0.166	1.00								
Methylene chloride	< 1.00	µg/L	SW8260D	0.448	1.00								
Surr: 1,2-Dichloroethane-d4	49.8	µg/L	SW8260D			50.00		99.5	80 - 136				
Surr: 4-Bromofluorobenzene	50.5	µg/L	SW8260D			50.00		101	85 - 121				
Surr: Dibromofluoromethane	49.7	µg/L	SW8260D			50.00		99.3	78 - 132				
Surr: Toluene-d8	51.0	µg/L	SW8260D			50.00		102	81 - 123				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: MS

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1909661-003CMS	Date Analyzed: 09/27/2019 1436h												
Test Code: 8260D-W-DEN100													
Chloroform	1,940	µg/L	SW8260D	3.32	20.0	400.0	1540	98.6	85 - 124				
Methylene chloride	462	µg/L	SW8260D	8.96	20.0	400.0	3.35	115	65 - 154				
Surr: 1,2-Dichloroethane-d4	975	µg/L	SW8260D			1,000		97.5	80 - 136				
Surr: 4-Bromofluorobenzene	983	µg/L	SW8260D			1,000		98.3	85 - 121				
Surr: Dibromofluoromethane	997	µg/L	SW8260D			1,000		99.7	78 - 132				
Surr: Toluene-d8	997	µg/L	SW8260D			1,000		99.7	81 - 123				



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QC SUMMARY REPORT

Client: Energy Fuels Resources, Inc.
Lab Set ID: 1909661
Project: September Ground Water 2019

Contact: Tanner Holliday
Dept: MSVOA
QC Type: MSD

Analyte	Result	Units	Method	MDL	Reporting Limit	Amount Spiked	Spike Ref. Amount	%REC	Limits	RPD Ref. Amt	% RPD	RPD Limit	Qual
Lab Sample ID: 1909661-003CMSD		Date Analyzed: 09/27/2019 1456h											
Test Code: 8260D-W-DEN100													
Chloroform	1,880	µg/L	SW8260D	3.32	20.0	400.0	1540	84.2	85 - 124	1940	3.03	35	†
Methylene chloride	449	µg/L	SW8260D	8.96	20.0	400.0	3.35	111	65 - 154	462	2.99	35	
Surr: 1,2-Dichloroethane-d4	976	µg/L	SW8260D			1,000		97.6	80 - 136				
Surr: 4-Bromofluorobenzene	1,010	µg/L	SW8260D			1,000		101	85 - 121				
Surr: Dibromofluoromethane	990	µg/L	SW8260D			1,000		99.0	78 - 132				
Surr: Toluene-d8	1,000	µg/L	SW8260D			1,000		100	81 - 123				

† - Matrix spike recovery indicates matrix interference. The method is in control as indicated by the LCS.

WORK ORDER Summary

Work Order: **1909661**

Page 1 of 2

Client: Energy Fuels Resources, Inc.

Due Date: 10/10/2019

Client ID: ENE300

Contact: Tanner Holliday

Project: September Ground Water 2019

QC Level: III

WO Type: Project

Comments: QC 3 (no chromatograms). EDD-Denison. CC KWeinel@energyfuels.com; (USE PROJECT for special DLs). Do not use "*R_" samples as MS/MSD.;

el

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1909661-001A	MW-11_09242019	9/24/2019 1155h	9/26/2019 1030h	200.8-DIS <i>1 SEL Analytes: MN</i>	Aqueous		df-met	1
				200.8-DIS-PR			df-met	
1909661-002A	MW-25_09232019	9/23/2019 1120h	9/26/2019 1030h	200.8-DIS <i>1 SEL Analytes: CD</i>	Aqueous		df-met	1
				200.8-DIS-PR			df-met	
1909661-003A	MW-26_09242019	9/24/2019 0930h	9/26/2019 1030h	NH3-W-350.1 <i>1 SEL Analytes: NH3N</i>	Aqueous		DF-NO2/NO3	1
				NH3-W-PR			DF-NO2/NO3	
				NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>			DF-NO2/NO3	
1909661-003B				300.0-W <i>1 SEL Analytes: CL</i>			DF-cl	
1909661-003C				8260D-W-DEN100 <i>Test Group: 8260D-W-DEN100; # of Analytes: 2 / # of Surr: 4</i>			VOCFridge	3
1909661-004A	MW-30_09242019	9/24/2019 1035h	9/26/2019 1030h	NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>	Aqueous		DF-NO2/NO3	1
1909661-004B				300.0-W <i>1 SEL Analytes: CL</i>			DF-cl	
1909661-004C				200.8-DIS <i>2 SEL Analytes: SE U</i>			df-met	
				200.8-DIS-PR			df-met	
1909661-005A	MW-31_09232019	9/23/2019 1320h	9/26/2019 1030h	NO2/NO3-W-353.2 <i>1 SEL Analytes: NO3NO2N</i>	Aqueous		DF-NO2/NO3	1
1909661-005B				300.0-W <i>1 SEL Analytes: CL</i>			DF-cl	
1909661-006A	MW-65_09242019	9/24/2019 1155h	9/26/2019 1030h	200.8-DIS <i>1 SEL Analytes: MN</i>	Aqueous		df-met	1
				200.8-DIS-PR			df-met	

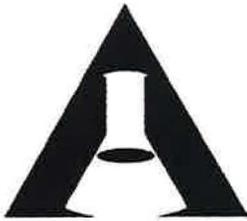
WORK ORDER Summary

Work Order: **1909661** Page 2 of 2

Client: Energy Fuels Resources, Inc.

Due Date: 10/10/2019

Sample ID	Client Sample ID	Collected Date	Received Date	Test Code	Matrix	Sel	Storage	
1909661-007A	Trip Blank	9/24/2019 0930h	9/26/2019 1030h	8260D-W-DEN100	Aqueous		VOCFridge	3
<i>Test Group: 8260D-W-DEN100; # of Analytes: 2 / # of Surr: 4</i>								



**American West
Analytical Laboratories**

463 W. 3600 S. Salt Lake City, UT 84115
 Phone # (801) 263-8686 Toll Free # (888) 263-8686
 Fax # (801) 263-8687 Email awal@awal-labs.com
 www.awal-labs.com

CHAIN OF CUSTODY

All analysis will be conducted using NELAP accredited methods and all data will be reported using AWAL's standard analyte lists and reporting limits (PQL) unless specifically requested otherwise on this Chain of Custody and/or attached documentation.

1909661
 AWAL Lab Sample Set #
 Page 1 of 1

Client: **Energy Fuels Resources, Inc.**
 Address: **6425 S. Hwy. 191**
Blanding, UT 84511
 Contact: **Tanner Holliday**
 Phone #: **(435) 678-2221** Cell #: _____
 Email: **tholliday@energyfuels.com; kweinel@energyfuels.com;**
 Project Name: **September Ground Water 2019**
 Project #: _____
 PO #: _____
 Sampler Name: **Tanner Holliday**

QC Level:		Turn Around Time:		Unless other arrangements have been made, signed reports will be emailed by 5:00 pm on the day they are due.		Due Date:												
3		Standard																
Sample ID	Date Sampled	Time Sampled	# of Containers	Sample Matrix								VOCs Chloroform, Dichloromethane, (8260C)	X Include EDD: LOCUS UPLOAD EXCEL X Field Filtered For: Dissolved Metals	Laboratory Use Only				
				NO2/NO3 (353.2)	Dissolved Manganese (200.7/200.8)	Cl (4500 or 300.0)	TDS (2540C)	Dissolved Uranium (200.7/200.8)	Dissolved Cadmium (200.7/200.8)	Dissolved Selenium (200.7/200.8)	Fluoride (A4500-F C or 300.0)			SO4 (4500 or 300.0)	Ammonia as N (350.1)	For Compliance With:	Samples Were:	
1 MW-11_09242019	9/24/2019	1155	1	W		X												1 Shipped or hand delivered
3 MW-25_09232019	9/23/2019	1120	1	W						X								2 Ambient or Chilled
4 MW-26_09242019	9/24/2019	930	5	W	X		X						X	X				3 Temperature 0-2°C
5 MW-30_09242019	9/24/2019	1035	3	W	X		X	X	X									4 Received Broken/Leaking (Improperly Sealed)
6 MW-31_09232019	9/23/2019	1320	2	W	X		X											5 Properly Preserved
7 MW-65_09242019	9/24/2019	1155	1	W		X												6 Received Within Holding Times
8 Trip Blank	9/24/2019	930	3	W														
9																		
10																		
11																		
12																		

For Compliance With:
 NELAP
 RCRA
 CWA
 SDWA
 ELAP / A2LA
 NLLAP
 Non-Compliance
 Other:
 Known Hazards & Sample Comments

1 Present on Outer Package
 Y N NA
 2 Unbroken on Outer Package
 Y N NA
 3 Present on Sample
 Y N NA
 4 Unbroken on Sample
 Y N NA
 Discrepancies Between Sample Labels and COC Record?
 Y N

Relinquished by: Signature <i>Tanner Holliday</i>	Date: 9/25/2019	Received by: Signature <i>Elmer Hays</i>	Date: 9/26/19	Special Instructions: Sample containers for metals were field filtered. See the Analytical Scope of Work for Reporting Limits and VOC analyte list.
Print Name: Tanner Holliday	Time: 1130	Print Name: Elmer Hays	Time: 1030	
Relinquished by: Signature	Date:	Received by: Signature	Date:	
Print Name:	Time:	Print Name:	Time:	
Relinquished by: Signature	Date:	Received by: Signature	Date:	
Print Name:	Time:	Print Name:	Time:	
Relinquished by: Signature	Date:	Received by: Signature	Date:	
Print Name:	Time:	Print Name:	Time:	

Lab Set ID: 1909661
 pH Lot #: 0085

Preservation Check Sheet

Sample Set Extension and pH

Analysis	Preservative	1	2	3	4	5	6											
Ammonia	pH <2 H ₂ SO ₄			Yes														
COD	pH <2 H ₂ SO ₄																	
Cyanide	pH >12 NaOH																	
Metals	pH <2 HNO ₃	Yes	Yes		Yes		Yes											
NO ₂ /NO ₃	pH <2 H ₂ SO ₄			Yes	Yes	Yes												
O & G	pH <2 HCL																	
Phenols	pH <2 H ₂ SO ₄																	
Sulfide	pH >9 NaOH, Zn Acetate																	
TKN	pH <2 H ₂ SO ₄																	
T PO ₄	pH <2 H ₂ SO ₄																	
Cr VI+	pH >9 (NH ₄) ₂ SO ₄																	

- Procedure:
- 1) Pour a small amount of sample in the sample lid
 - 2) Pour sample from lid gently over wide range pH paper
 - 3) **Do Not** dip the pH paper in the sample bottle or lid
 - 4) If sample is not preserved, properly list its extension and receiving pH in the appropriate column above
 - 5) Flag COC, notify client if requested
 - 6) Place client conversation on COC
 - 7) Samples may be adjusted

Frequency: All samples requiring preservation

- * The sample required additional preservative upon receipt.
- + The sample was received unpreserved.
- ▲ The sample was received unpreserved and therefore preserved upon receipt.
- # The sample pH was unadjustable to a pH < 2 due to the sample matrix.
- The sample pH was unadjustable to a pH > ____ due to the sample matrix interference.

Tab G

Quality Assurance and Data Validation Tables

G-1A: Field QA/QC Evaluation

Location	1x Casing Volume	Volume Pumped	2x Casing Volume	Volume Check	Conductivity		RPD	pH		RPD	Temperature		RPD	Redox		RPD	Turbidity		RPD	Dissolved Oxygen		RPD
MW-05	21.36	43.40	42.72	okay	2645	2650	0.19	7.31	7.30	0.14	15.35	15.30	0.33	330	337	2.10	1.0	1.0	0.00	15.4	15.3	0.65
MW-11	29.12	58.59	58.24	okay	2688	2660	1.05	7.19	7.21	0.28	16.95	16.93	0.12	321	325	1.24	0	0	0.00	0	0	0
MW-12	14.59	30.38	29.18	okay	3706	3791	2.27	6.79	6.79	0.00	17.90	17.50	2.26	415	428	3.08	1.0	1.0	0.00	23.0	24.1	4.67
MW-14	17.20	34.72	34.40	okay	3476	3479	0.09	6.50	6.50	0.00	17.39	17.30	0.52	337	342	1.47	0	0	0.00	0	0	0
MW-24	5.45	12.00	10.90	Pumped Dry	4054	4055	0.02	5.03	5.03	0.00	15.90	15.86	0.25	NM		NC	NM		NC	74.9		NC
MW-25	22.98	52.08	45.96	okay	2885	2885	0.00	6.63	6.62	0.15	15.45	15.47	0.13	391	396	1.27	3.0	3.0	0.00	0	0	0
MW-26	NA	Continuously Pumped well	--	--	3198		NC	6.75		NC	16.60		NC	306		NC	1.2		NC	18.0		NC
MW-27	25.00	50.99	50.00	okay	1021	1024	0.29	7.13	7.05	1.13	15.50	15.55	0.32	372	398	6.75	0	0	0.00	104.7	104.6	0.10
MW-27 Resample	24.89	52.08	49.78	okay	1036	1032	0.39	7.03	7.04	0.14	16.40	16.38	0.12	316	323	2.19	0	0	0.00	104.2	103.7	0.48
MW-28	22.98	49.91	45.96	okay	3868	3849	0.49	6.17	6.16	0.16	15.79	15.73	0.38	481	478	0.63	2.9	2.8	3.51	23.6	23.5	0.42
MW-28 Resample	23.05	52.08	46.10	okay	3675	3656	0.52	6.18	6.18	0.00	15.83	15.78	0.32	406	409	0.74	1.0	1.1	9.52	23.9	23.6	1.26
MW-30	22.85	46.65	45.70	okay	1997	1996	0.05	6.87	6.86	0.15	15.11	15.13	0.13	382	392	2.58	1.1	1.1	0.00	56.4	56.1	0.53
MW-31	39.87	80.29	79.74	okay	2641	2645	0.15	6.80	6.79	0.15	17.40	17.40	0.00	395	398	0.76	2.0	2.1	4.88	107.0	106.1	0.84
MW-32	32.69	67.27	65.38	okay	3491	3502	0.31	6.16	6.16	0.00	15.25	15.31	0.39	258	260	0.77	31.0	32.0	3.17	2.0	2.0	0.00
MW-35	7.83	16.27	15.66	okay	3797	3801	0.11	6.59	6.61	0.30	15.48	15.43	0.32	334	336	0.60	0	0	0.00	2.4	2.4	0.00
MW-36	7.18	16.27	14.36	okay	4486	4491	0.11	6.60	6.60	0.00	15.98	15.97	0.06	370	379	2.40	0	0	0.00	80.6	81.2	0.74
MW-38	2.46	4.50	4.92	Pumped Dry	4058	4059	0.02	7.41	7.40	0.14	15.53	15.50	0.19	NM		NC	NM		NC	87.1		NC
MW-39	24.22	52.08	48.44	okay	4272	4280	0.19	4.19	4.18	0.24	15.47	15.50	0.19	569	570	0.18	2.1	2.0	4.88	1.9	2.0	5.13
MW-40	26.12	53.16	52.24	okay	3560	3559	0.03	6.50	6.50	0.00	17.40	17.39	0.06	339	348	2.62	0	0	0.00	98.1	98.3	0.20

MW-26 is a continually pumped well.

MW-24, MW-38 were pumped dry and sampled after recovery.

NM = Not Measured. The QAP does not require the measurement of redox potential or turbidity in wells that were purged to dryness.

RPD = Relative Percent Difference

The QAP states that turbidity should be less than 5 Nephelometric Turbidity Units ("NTU") prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP does not require that turbidity measurements be less than 5 NTU prior to sampling. As such, the noted observations regarding turbidity measurements less than 5 NTU are included for information purposes only.

G-1B: Field QA/QC Evaluation

Location	1x Casing Volume	Volume Pumped	2x Casing Volume	Volume Check	Conductivity		RPD	pH		RPD	Temperature		RPD	Redox		RPD	Turbidity		RPD	Dissolved Oxygen		RPD
August Accelerated Sampling																						
MW-11	28.96	58.59	57.92	okay	2762	2730	1.17	7.53	7.60	0.93	15.65	15.65	0.00	363	364	0.28	1.1	1.0	9.52	1.0	1.0	0
MW-25	22.95	46.65	45.90	okay	2923	2923	0.00	7.10	7.08	0.28	15.51	15.43	0.52	317	321	1.25	20.1	21.0	4.38	0	0	0
MW-26	NA	Continuously Pumped well	--		3185		NC	7.00		NC	18.66		NC	330		NC	0		NC	20.1		NC
MW-30	22.78	46.65	45.56	okay	2003	2004	0.05	7.43	7.42	0.13	15.22	15.17	0.33	370	372	0.54	0	0	0.00	55.4	55.1	0.54
MW-31	39.86	80.29	79.72	okay	2756	2750	0.22	7.44	7.44	0.00	15.85	15.88	0.19	344	348	1.16	0	0	0.00	121.8	122.0	0.16
MW-36	7.21	16.27	14.42	okay	4458	4472	0.31	7.32	7.33	0.14	15.83	15.80	0.19	311	321	3.16	0	0	0.00	81.6	80.8	0.99
September Accelerated Sampling																						
MW-11	29.05	58.59	58.10	okay	2754	2758	0.15	7.37	7.36	0.14	15.35	15.37	0.13	243	248	2.04	0	0	0.00	3.5	3.5	0.00
MW-25	22.90	52.08	45.80	okay	2929	2923	0.21	6.74	6.74	0.00	15.48	15.50	0.13	262	261	0.38	1.1	1.1	0.00	0	0	0
MW-26	NA	Continuously Pumped well	--		3240		NC	6.75		NC	15.45		NC	311		NC	3.5		NC	18.2		NC
MW-30	22.69	46.65	45.38	okay	2027	2027	0.00	7.01	7.00	0.14	14.89	14.90	0.07	331	337	1.80	1.8	1.8	0.00	32.5	32.4	0.31
MW-31	39.86	80.29	79.72	okay	2820	2816	0.14	7.13	7.13	0.00	15.15	15.12	0.20	310	316	1.92	0	0	0.00	119.3	118.8	0.42
MW-36	7.22	21.70	14.44	okay	4521	4519	0.04	6.92	6.92	0.00	14.89	14.89	0.00	434	435	0.23	0	0	0.00	78.7	78.9	0.25

MW-26 is a Continuously pumped well.

There are no wells that were pumped dry and sampled after recovery.

NM = Not Measured. The QAP does not require the measurement of redox potential or turbidity in wells that were purged to dryness.

RPD = Relative Percent Difference

The QAP states that turbidity should be less than 5 Nephelometric Turbidity Units ("NTU") prior to sampling unless the well is characterized by water that has a higher turbidity. The QAP does not require that turbidity measurements be less than 5 NTU prior to sampling. As such, the noted observations regarding turbidity measurements less than 5 NTU are included for information purposes only.

G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
Trip Blank	Toluene	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Tetrahydrofuran	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Xylenes, Total	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Carbon tetrachloride	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Acetone	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Chloroform	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Benzene	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Chloromethane	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Methylene chloride	7/15/2019	7/22/2019	7	14	OK
Trip Blank	2-Butanone	7/15/2019	7/22/2019	7	14	OK
Trip Blank	Naphthalene	7/15/2019	7/22/2019	7	14	OK
MW-05	Uranium	7/11/2019	8/2/2019	22	180	OK
MW-11	Toluene	7/16/2019	7/19/2019	3	14	OK
MW-11	Tetrahydrofuran	7/16/2019	7/19/2019	3	14	OK
MW-11	Xylenes, Total	7/16/2019	7/19/2019	3	14	OK
MW-11	Sulfate	7/16/2019	8/12/2019	27	28	OK
MW-11	Chloride	7/16/2019	8/12/2019	27	28	OK
MW-11	Fluoride	7/16/2019	8/12/2019	27	28	OK
MW-11	Carbon tetrachloride	7/16/2019	7/19/2019	3	14	OK
MW-11	Acetone	7/16/2019	7/19/2019	3	14	OK
MW-11	Chloroform	7/16/2019	7/19/2019	3	14	OK
MW-11	Benzene	7/16/2019	7/19/2019	3	14	OK
MW-11	Chloromethane	7/16/2019	7/19/2019	3	14	OK
MW-11	Iron	7/16/2019	8/1/2019	16	180	OK
MW-11	Lead	7/16/2019	8/1/2019	16	180	OK
MW-11	Magnesium	7/16/2019	7/30/2019	14	180	OK
MW-11	Manganese	7/16/2019	8/2/2019	17	180	OK
MW-11	Mercury	7/16/2019	7/30/2019	14	180	OK
MW-11	Molybdenum	7/16/2019	8/1/2019	16	180	OK
MW-11	Nickel	7/16/2019	8/1/2019	16	180	OK
MW-11	Potassium	7/16/2019	7/30/2019	14	180	OK
MW-11	Silver	7/16/2019	8/1/2019	16	180	OK
MW-11	Sodium	7/16/2019	7/30/2019	14	180	OK
MW-11	Thallium	7/16/2019	8/1/2019	16	180	OK
MW-11	Tin	7/16/2019	8/2/2019	17	180	OK
MW-11	Arsenic	7/16/2019	8/1/2019	16	180	OK
MW-11	Beryllium	7/16/2019	8/1/2019	16	180	OK
MW-11	Cadmium	7/16/2019	8/1/2019	16	180	OK
MW-11	Chromium	7/16/2019	8/1/2019	16	180	OK
MW-11	Cobalt	7/16/2019	8/1/2019	16	180	OK
MW-11	Copper	7/16/2019	8/2/2019	17	180	OK
MW-11	Uranium	7/16/2019	8/2/2019	17	180	OK
MW-11	Vanadium	7/16/2019	7/30/2019	14	180	OK
MW-11	Zinc	7/16/2019	8/2/2019	17	180	OK
MW-11	Calcium	7/16/2019	7/30/2019	14	180	OK
MW-11	Methylene chloride	7/16/2019	7/19/2019	3	14	OK
MW-11	Ammonia (as N)	7/16/2019	7/29/2019	13	28	OK
MW-11	Selenium	7/16/2019	8/1/2019	16	180	OK
MW-11	2-Butanone	7/16/2019	7/19/2019	3	14	OK
MW-11	Naphthalene	7/16/2019	7/19/2019	3	14	OK
MW-11	Bicarbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-11	Carbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-11	Gross Radium Alpha	7/16/2019	7/26/2019	10	180	OK

G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-11	Nitrate/Nitrite (as N)	7/16/2019	7/22/2019	6	28	OK
MW-11	Total Dissolved Solids	7/16/2019	7/22/2019	6	7	OK
MW-12	Uranium	7/11/2019	8/2/2019	22	180	OK
MW-14	Toluene	7/15/2019	7/19/2019	4	14	OK
MW-14	Tetrahydrofuran	7/15/2019	7/19/2019	4	14	OK
MW-14	Xylenes, Total	7/15/2019	7/19/2019	4	14	OK
MW-14	Sulfate	7/15/2019	8/12/2019	28	28	OK
MW-14	Chloride	7/15/2019	8/12/2019	28	28	OK
MW-14	Fluoride	7/15/2019	8/12/2019	28	28	OK
MW-14	Carbon tetrachloride	7/15/2019	7/19/2019	4	14	OK
MW-14	Acetone	7/15/2019	7/19/2019	4	14	OK
MW-14	Chloroform	7/15/2019	7/19/2019	4	14	OK
MW-14	Benzene	7/15/2019	7/19/2019	4	14	OK
MW-14	Chloromethane	7/15/2019	7/19/2019	4	14	OK
MW-14	Iron	7/15/2019	8/1/2019	17	180	OK
MW-14	Lead	7/15/2019	8/1/2019	17	180	OK
MW-14	Magnesium	7/15/2019	7/30/2019	15	180	OK
MW-14	Manganese	7/15/2019	8/2/2019	18	180	OK
MW-14	Mercury	7/15/2019	7/30/2019	15	180	OK
MW-14	Molybdenum	7/15/2019	8/1/2019	17	180	OK
MW-14	Nickel	7/15/2019	8/1/2019	17	180	OK
MW-14	Potassium	7/15/2019	7/30/2019	15	180	OK
MW-14	Silver	7/15/2019	8/1/2019	17	180	OK
MW-14	Sodium	7/15/2019	7/30/2019	15	180	OK
MW-14	Thallium	7/15/2019	8/1/2019	17	180	OK
MW-14	Tin	7/15/2019	8/2/2019	18	180	OK
MW-14	Arsenic	7/15/2019	8/1/2019	17	180	OK
MW-14	Beryllium	7/15/2019	8/1/2019	17	180	OK
MW-14	Cadmium	7/15/2019	8/1/2019	17	180	OK
MW-14	Chromium	7/15/2019	8/1/2019	17	180	OK
MW-14	Cobalt	7/15/2019	8/1/2019	17	180	OK
MW-14	Copper	7/15/2019	8/2/2019	18	180	OK
MW-14	Uranium	7/15/2019	8/2/2019	18	180	OK
MW-14	Vanadium	7/15/2019	7/30/2019	15	180	OK
MW-14	Zinc	7/15/2019	8/2/2019	18	180	OK
MW-14	Calcium	7/15/2019	7/30/2019	15	180	OK
MW-14	Methylene chloride	7/15/2019	7/19/2019	4	14	OK
MW-14	Ammonia (as N)	7/15/2019	7/29/2019	14	28	OK
MW-14	Selenium	7/15/2019	8/1/2019	17	180	OK
MW-14	2-Butanone	7/15/2019	7/19/2019	4	14	OK
MW-14	Naphthalene	7/15/2019	7/19/2019	4	14	OK
MW-14	Bicarbonate (as CaCO3)	7/15/2019	7/23/2019	8	14	OK
MW-14	Carbonate (as CaCO3)	7/15/2019	7/23/2019	8	14	OK
MW-14	Gross Radium Alpha	7/15/2019	7/26/2019	11	180	OK
MW-14	Nitrate/Nitrite (as N)	7/15/2019	7/22/2019	7	28	OK
MW-14	Total Dissolved Solids	7/15/2019	7/19/2019	4	7	OK
MW-24	Fluoride	7/18/2019	8/12/2019	25	28	OK
MW-24	Nickel	7/18/2019	8/1/2019	14	180	OK
MW-24	Thallium	7/18/2019	8/1/2019	14	180	OK
MW-24	Beryllium	7/18/2019	8/1/2019	14	180	OK
MW-24	Cadmium	7/18/2019	8/1/2019	14	180	OK
MW-25	Toluene	7/15/2019	7/19/2019	4	14	OK
MW-25	Tetrahydrofuran	7/15/2019	7/19/2019	4	14	OK

G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-25	Xylenes, Total	7/15/2019	7/19/2019	4	14	OK
MW-25	Sulfate	7/15/2019	8/10/2019	26	28	OK
MW-25	Chloride	7/15/2019	8/10/2019	26	28	OK
MW-25	Fluoride	7/15/2019	8/11/2019	27	28	OK
MW-25	Carbon tetrachloride	7/15/2019	7/19/2019	4	14	OK
MW-25	Acetone	7/15/2019	7/19/2019	4	14	OK
MW-25	Chloroform	7/15/2019	7/19/2019	4	14	OK
MW-25	Benzene	7/15/2019	7/19/2019	4	14	OK
MW-25	Chloromethane	7/15/2019	7/19/2019	4	14	OK
MW-25	Iron	7/15/2019	8/1/2019	17	180	OK
MW-25	Lead	7/15/2019	8/1/2019	17	180	OK
MW-25	Magnesium	7/15/2019	7/30/2019	15	180	OK
MW-25	Manganese	7/15/2019	8/2/2019	18	180	OK
MW-25	Mercury	7/15/2019	7/30/2019	15	180	OK
MW-25	Molybdenum	7/15/2019	8/1/2019	17	180	OK
MW-25	Nickel	7/15/2019	8/1/2019	17	180	OK
MW-25	Potassium	7/15/2019	7/30/2019	15	180	OK
MW-25	Silver	7/15/2019	8/1/2019	17	180	OK
MW-25	Sodium	7/15/2019	7/30/2019	15	180	OK
MW-25	Thallium	7/15/2019	8/1/2019	17	180	OK
MW-25	Tin	7/15/2019	8/2/2019	18	180	OK
MW-25	Arsenic	7/15/2019	8/1/2019	17	180	OK
MW-25	Beryllium	7/15/2019	8/1/2019	17	180	OK
MW-25	Cadmium	7/15/2019	8/1/2019	17	180	OK
MW-25	Chromium	7/15/2019	8/1/2019	17	180	OK
MW-25	Cobalt	7/15/2019	8/1/2019	17	180	OK
MW-25	Copper	7/15/2019	8/2/2019	18	180	OK
MW-25	Uranium	7/15/2019	8/2/2019	18	180	OK
MW-25	Vanadium	7/15/2019	7/30/2019	15	180	OK
MW-25	Zinc	7/15/2019	8/2/2019	18	180	OK
MW-25	Calcium	7/15/2019	7/30/2019	15	180	OK
MW-25	Methylene chloride	7/15/2019	7/19/2019	4	14	OK
MW-25	Ammonia (as N)	7/15/2019	7/29/2019	14	28	OK
MW-25	Selenium	7/15/2019	8/1/2019	17	180	OK
MW-25	2-Butanone	7/15/2019	7/19/2019	4	14	OK
MW-25	Naphthalene	7/15/2019	7/19/2019	4	14	OK
MW-25	Bicarbonate (as CaCO3)	7/15/2019	7/23/2019	8	14	OK
MW-25	Carbonate (as CaCO3)	7/15/2019	7/23/2019	8	14	OK
MW-25	Gross Radium Alpha	7/15/2019	7/26/2019	11	180	OK
MW-25	Nitrate/Nitrite (as N)	7/15/2019	7/22/2019	7	28	OK
MW-25	Total Dissolved Solids	7/15/2019	7/19/2019	4	7	OK
MW-26	Toluene	7/16/2019	7/19/2019	3	14	OK
MW-26	Tetrahydrofuran	7/16/2019	7/19/2019	3	14	OK
MW-26	Xylenes, Total	7/16/2019	7/19/2019	3	14	OK
MW-26	Sulfate	7/16/2019	8/10/2019	25	28	OK
MW-26	Chloride	7/16/2019	8/10/2019	25	28	OK
MW-26	Fluoride	7/16/2019	8/11/2019	26	28	OK
MW-26	Carbon tetrachloride	7/16/2019	7/19/2019	3	14	OK
MW-26	Acetone	7/16/2019	7/19/2019	3	14	OK
MW-26	Chloroform	7/16/2019	7/22/2019	6	14	OK
MW-26	Benzene	7/16/2019	7/19/2019	3	14	OK
MW-26	Chloromethane	7/16/2019	7/19/2019	3	14	OK
MW-26	Iron	7/16/2019	8/1/2019	16	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-26	Lead	7/16/2019	8/1/2019	16	180	OK
MW-26	Magnesium	7/16/2019	7/30/2019	14	180	OK
MW-26	Manganese	7/16/2019	8/2/2019	17	180	OK
MW-26	Mercury	7/16/2019	7/30/2019	14	180	OK
MW-26	Molybdenum	7/16/2019	8/1/2019	16	180	OK
MW-26	Nickel	7/16/2019	8/1/2019	16	180	OK
MW-26	Potassium	7/16/2019	7/30/2019	14	180	OK
MW-26	Silver	7/16/2019	8/1/2019	16	180	OK
MW-26	Sodium	7/16/2019	7/30/2019	14	180	OK
MW-26	Thallium	7/16/2019	8/1/2019	16	180	OK
MW-26	Tin	7/16/2019	8/2/2019	17	180	OK
MW-26	Arsenic	7/16/2019	8/1/2019	16	180	OK
MW-26	Beryllium	7/16/2019	8/1/2019	16	180	OK
MW-26	Cadmium	7/16/2019	8/1/2019	16	180	OK
MW-26	Chromium	7/16/2019	8/1/2019	16	180	OK
MW-26	Cobalt	7/16/2019	8/1/2019	16	180	OK
MW-26	Copper	7/16/2019	8/2/2019	17	180	OK
MW-26	Uranium	7/16/2019	8/2/2019	17	180	OK
MW-26	Vanadium	7/16/2019	7/30/2019	14	180	OK
MW-26	Zinc	7/16/2019	8/2/2019	17	180	OK
MW-26	Calcium	7/16/2019	7/30/2019	14	180	OK
MW-26	Methylene chloride	7/16/2019	7/19/2019	3	14	OK
MW-26	Ammonia (as N)	7/16/2019	7/29/2019	13	28	OK
MW-26	Selenium	7/16/2019	8/1/2019	16	180	OK
MW-26	2-Butanone	7/16/2019	7/19/2019	3	14	OK
MW-26	Naphthalene	7/16/2019	7/19/2019	3	14	OK
MW-26	Bicarbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-26	Carbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-26	Gross Radium Alpha	7/16/2019	7/26/2019	10	180	OK
MW-26	Nitrate/Nitrite (as N)	7/16/2019	7/22/2019	6	28	OK
MW-26	Total Dissolved Solids	7/16/2019	7/22/2019	6	7	OK
MW-27	Nitrate/Nitrite (as N)	7/12/2019	7/22/2019	10	28	OK
MW-27	Chloride	8/15/2019	8/28/2019	13	28	OK
MW-28	Uranium	7/12/2019	8/2/2019	21	180	OK
MW-28	Selenium	7/12/2019	8/1/2019	20	180	OK
MW-28	Gross Radium Alpha	7/12/2019	7/29/2019	17	180	OK
MW-28	Chloride	8/16/2019	8/28/2019	12	28	OK
MW-30	Toluene	7/16/2019	7/19/2019	3	14	OK
MW-30	Tetrahydrofuran	7/16/2019	7/19/2019	3	14	OK
MW-30	Xylenes, Total	7/16/2019	7/19/2019	3	14	OK
MW-30	Sulfate	7/16/2019	8/12/2019	27	28	OK
MW-30	Chloride	7/16/2019	8/12/2019	27	28	OK
MW-30	Fluoride	7/16/2019	8/12/2019	27	28	OK
MW-30	Carbon tetrachloride	7/16/2019	7/19/2019	3	14	OK
MW-30	Acetone	7/16/2019	7/19/2019	3	14	OK
MW-30	Chloroform	7/16/2019	7/19/2019	3	14	OK
MW-30	Benzene	7/16/2019	7/19/2019	3	14	OK
MW-30	Chloromethane	7/16/2019	7/19/2019	3	14	OK
MW-30	Iron	7/16/2019	8/1/2019	16	180	OK
MW-30	Lead	7/16/2019	8/1/2019	16	180	OK
MW-30	Magnesium	7/16/2019	7/30/2019	14	180	OK
MW-30	Manganese	7/16/2019	8/2/2019	17	180	OK
MW-30	Mercury	7/16/2019	7/30/2019	14	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-30	Molybdenum	7/16/2019	8/1/2019	16	180	OK
MW-30	Nickel	7/16/2019	8/1/2019	16	180	OK
MW-30	Potassium	7/16/2019	7/31/2019	15	180	OK
MW-30	Silver	7/16/2019	8/1/2019	16	180	OK
MW-30	Sodium	7/16/2019	7/30/2019	14	180	OK
MW-30	Thallium	7/16/2019	8/1/2019	16	180	OK
MW-30	Tin	7/16/2019	8/2/2019	17	180	OK
MW-30	Arsenic	7/16/2019	8/1/2019	16	180	OK
MW-30	Beryllium	7/16/2019	8/1/2019	16	180	OK
MW-30	Cadmium	7/16/2019	8/1/2019	16	180	OK
MW-30	Chromium	7/16/2019	8/1/2019	16	180	OK
MW-30	Cobalt	7/16/2019	8/1/2019	16	180	OK
MW-30	Copper	7/16/2019	8/2/2019	17	180	OK
MW-30	Uranium	7/16/2019	8/2/2019	17	180	OK
MW-30	Vanadium	7/16/2019	7/30/2019	14	180	OK
MW-30	Zinc	7/16/2019	8/2/2019	17	180	OK
MW-30	Calcium	7/16/2019	7/30/2019	14	180	OK
MW-30	Methylene chloride	7/16/2019	7/19/2019	3	14	OK
MW-30	Ammonia (as N)	7/16/2019	7/29/2019	13	28	OK
MW-30	Selenium	7/16/2019	8/1/2019	16	180	OK
MW-30	2-Butanone	7/16/2019	7/19/2019	3	14	OK
MW-30	Naphthalene	7/16/2019	7/19/2019	3	14	OK
MW-30	Bicarbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-30	Carbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-30	Gross Radium Alpha	7/16/2019	7/26/2019	10	180	OK
MW-30	Nitrate/Nitrite (as N)	7/16/2019	7/22/2019	6	28	OK
MW-30	Total Dissolved Solids	7/16/2019	7/22/2019	6	7	OK
MW-31	Toluene	7/15/2019	7/19/2019	4	14	OK
MW-31	Tetrahydrofuran	7/15/2019	7/19/2019	4	14	OK
MW-31	Xylenes, Total	7/15/2019	7/19/2019	4	14	OK
MW-31	Sulfate	7/15/2019	8/12/2019	28	28	OK
MW-31	Chloride	7/15/2019	8/12/2019	28	28	OK
MW-31	Fluoride	7/15/2019	8/12/2019	28	28	OK
MW-31	Carbon tetrachloride	7/15/2019	7/19/2019	4	14	OK
MW-31	Acetone	7/15/2019	7/19/2019	4	14	OK
MW-31	Chloroform	7/15/2019	7/19/2019	4	14	OK
MW-31	Benzene	7/15/2019	7/19/2019	4	14	OK
MW-31	Chloromethane	7/15/2019	7/19/2019	4	14	OK
MW-31	Iron	7/15/2019	8/1/2019	17	180	OK
MW-31	Lead	7/15/2019	8/1/2019	17	180	OK
MW-31	Magnesium	7/15/2019	7/30/2019	15	180	OK
MW-31	Manganese	7/15/2019	8/2/2019	18	180	OK
MW-31	Mercury	7/15/2019	7/30/2019	15	180	OK
MW-31	Molybdenum	7/15/2019	8/1/2019	17	180	OK
MW-31	Nickel	7/15/2019	8/1/2019	17	180	OK
MW-31	Potassium	7/15/2019	7/31/2019	16	180	OK
MW-31	Silver	7/15/2019	8/1/2019	17	180	OK
MW-31	Sodium	7/15/2019	7/30/2019	15	180	OK
MW-31	Thallium	7/15/2019	8/1/2019	17	180	OK
MW-31	Tin	7/15/2019	8/2/2019	18	180	OK
MW-31	Arsenic	7/15/2019	8/1/2019	17	180	OK
MW-31	Beryllium	7/15/2019	8/1/2019	17	180	OK
MW-31	Cadmium	7/15/2019	8/1/2019	17	180	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-31	Chromium	7/15/2019	8/1/2019	17	180	OK
MW-31	Cobalt	7/15/2019	8/1/2019	17	180	OK
MW-31	Copper	7/15/2019	8/2/2019	18	180	OK
MW-31	Uranium	7/15/2019	8/2/2019	18	180	OK
MW-31	Vanadium	7/15/2019	7/30/2019	15	180	OK
MW-31	Zinc	7/15/2019	8/2/2019	18	180	OK
MW-31	Calcium	7/15/2019	7/30/2019	15	180	OK
MW-31	Methylene chloride	7/15/2019	7/19/2019	4	14	OK
MW-31	Ammonia (as N)	7/15/2019	7/29/2019	14	28	OK
MW-31	Selenium	7/15/2019	8/1/2019	17	180	OK
MW-31	2-Butanone	7/15/2019	7/19/2019	4	14	OK
MW-31	Naphthalene	7/15/2019	7/19/2019	4	14	OK
MW-31	Bicarbonate (as CaCO3)	7/15/2019	7/23/2019	8	14	OK
MW-31	Carbonate (as CaCO3)	7/15/2019	7/23/2019	8	14	OK
MW-31	Gross Radium Alpha	7/15/2019	7/26/2019	11	180	OK
MW-31	Nitrate/Nitrite (as N)	7/15/2019	7/22/2019	7	28	OK
MW-31	Total Dissolved Solids	7/15/2019	7/19/2019	4	7	OK
MW-32	Chloride	8/15/2019	8/28/2019	13	28	OK
MW-35	Ammonia (as N)	7/11/2019	7/29/2019	18	28	OK
MW-36	Toluene	7/16/2019	7/19/2019	3	14	OK
MW-36	Tetrahydrofuran	7/16/2019	7/19/2019	3	14	OK
MW-36	Xylenes, Total	7/16/2019	7/19/2019	3	14	OK
MW-36	Sulfate	7/16/2019	8/12/2019	27	28	OK
MW-36	Chloride	7/16/2019	8/12/2019	27	28	OK
MW-36	Fluoride	7/16/2019	8/12/2019	27	28	OK
MW-36	Carbon tetrachloride	7/16/2019	7/19/2019	3	14	OK
MW-36	Acetone	7/16/2019	7/19/2019	3	14	OK
MW-36	Chloroform	7/16/2019	7/19/2019	3	14	OK
MW-36	Benzene	7/16/2019	7/19/2019	3	14	OK
MW-36	Chloromethane	7/16/2019	7/19/2019	3	14	OK
MW-36	Iron	7/16/2019	8/1/2019	16	180	OK
MW-36	Lead	7/16/2019	8/2/2019	17	180	OK
MW-36	Magnesium	7/16/2019	7/30/2019	14	180	OK
MW-36	Manganese	7/16/2019	8/2/2019	17	180	OK
MW-36	Mercury	7/16/2019	7/30/2019	14	180	OK
MW-36	Molybdenum	7/16/2019	8/1/2019	16	180	OK
MW-36	Nickel	7/16/2019	8/1/2019	16	180	OK
MW-36	Potassium	7/16/2019	7/31/2019	15	180	OK
MW-36	Silver	7/16/2019	8/1/2019	16	180	OK
MW-36	Sodium	7/16/2019	7/30/2019	14	180	OK
MW-36	Thallium	7/16/2019	8/2/2019	17	180	OK
MW-36	Tin	7/16/2019	8/2/2019	17	180	OK
MW-36	Arsenic	7/16/2019	8/1/2019	16	180	OK
MW-36	Beryllium	7/16/2019	8/2/2019	17	180	OK
MW-36	Cadmium	7/16/2019	8/1/2019	16	180	OK
MW-36	Chromium	7/16/2019	8/1/2019	16	180	OK
MW-36	Cobalt	7/16/2019	8/1/2019	16	180	OK
MW-36	Copper	7/16/2019	8/2/2019	17	180	OK
MW-36	Uranium	7/16/2019	8/1/2019	16	180	OK
MW-36	Vanadium	7/16/2019	7/30/2019	14	180	OK
MW-36	Zinc	7/16/2019	8/2/2019	17	180	OK
MW-36	Calcium	7/16/2019	7/30/2019	14	180	OK
MW-36	Methylene chloride	7/16/2019	7/19/2019	3	14	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-36	Ammonia (as N)	7/16/2019	7/29/2019	13	28	OK
MW-36	Selenium	7/16/2019	8/1/2019	16	180	OK
MW-36	2-Butanone	7/16/2019	7/19/2019	3	14	OK
MW-36	Naphthalene	7/16/2019	7/19/2019	3	14	OK
MW-36	Bicarbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-36	Carbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-36	Gross Radium Alpha	7/16/2019	7/26/2019	10	180	OK
MW-36	Nitrate/Nitrite (as N)	7/16/2019	7/22/2019	6	28	OK
MW-36	Total Dissolved Solids	7/16/2019	7/22/2019	6	7	OK
MW-38	Toluene	7/18/2019	7/19/2019	1	14	OK
MW-38	Tetrahydrofuran	7/18/2019	7/19/2019	1	14	OK
MW-38	Xylenes, Total	7/18/2019	7/19/2019	1	14	OK
MW-38	Sulfate	7/18/2019	8/10/2019	23	28	OK
MW-38	Chloride	7/18/2019	8/10/2019	23	28	OK
MW-38	Fluoride	7/18/2019	8/11/2019	24	28	OK
MW-38	Carbon tetrachloride	7/18/2019	7/19/2019	1	14	OK
MW-38	Acetone	7/18/2019	7/19/2019	1	14	OK
MW-38	Chloroform	7/18/2019	7/19/2019	1	14	OK
MW-38	Benzene	7/18/2019	7/19/2019	1	14	OK
MW-38	Chloromethane	7/18/2019	7/19/2019	1	14	OK
MW-38	Iron	7/18/2019	8/1/2019	14	180	OK
MW-38	Lead	7/18/2019	8/1/2019	14	180	OK
MW-38	Magnesium	7/18/2019	7/30/2019	12	180	OK
MW-38	Manganese	7/18/2019	8/2/2019	15	180	OK
MW-38	Mercury	7/18/2019	7/30/2019	12	180	OK
MW-38	Molybdenum	7/18/2019	8/1/2019	14	180	OK
MW-38	Nickel	7/18/2019	8/1/2019	14	180	OK
MW-38	Potassium	7/18/2019	7/31/2019	13	180	OK
MW-38	Silver	7/18/2019	8/1/2019	14	180	OK
MW-38	Sodium	7/18/2019	7/30/2019	12	180	OK
MW-38	Thallium	7/18/2019	8/1/2019	14	180	OK
MW-38	Tin	7/18/2019	8/2/2019	15	180	OK
MW-38	Arsenic	7/18/2019	8/1/2019	14	180	OK
MW-38	Beryllium	7/18/2019	8/1/2019	14	180	OK
MW-38	Cadmium	7/18/2019	8/1/2019	14	180	OK
MW-38	Chromium	7/18/2019	8/1/2019	14	180	OK
MW-38	Cobalt	7/18/2019	8/1/2019	14	180	OK
MW-38	Copper	7/18/2019	8/2/2019	15	180	OK
MW-38	Uranium	7/18/2019	8/2/2019	15	180	OK
MW-38	Vanadium	7/18/2019	7/30/2019	12	180	OK
MW-38	Zinc	7/18/2019	8/2/2019	15	180	OK
MW-38	Calcium	7/18/2019	7/30/2019	12	180	OK
MW-38	Methylene chloride	7/18/2019	7/19/2019	1	14	OK
MW-38	Ammonia (as N)	7/18/2019	7/29/2019	11	28	OK
MW-38	Selenium	7/18/2019	8/1/2019	14	180	OK
MW-38	2-Butanone	7/18/2019	7/19/2019	1	14	OK
MW-38	Naphthalene	7/18/2019	7/19/2019	1	14	OK
MW-38	Bicarbonate (as CaCO3)	7/18/2019	7/23/2019	5	14	OK
MW-38	Carbonate (as CaCO3)	7/18/2019	7/23/2019	5	14	OK
MW-38	Gross Radium Alpha	7/18/2019	7/26/2019	8	180	OK
MW-38	Nitrate/Nitrite (as N)	7/18/2019	7/22/2019	4	28	OK
MW-38	Total Dissolved Solids	7/18/2019	7/22/2019	4	7	OK
MW-39	Toluene	7/17/2019	7/19/2019	2	14	OK

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Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-39	Tetrahydrofuran	7/17/2019	7/19/2019	2	14	OK
MW-39	Xylenes, Total	7/17/2019	7/19/2019	2	14	OK
MW-39	Sulfate	7/17/2019	8/10/2019	24	28	OK
MW-39	Chloride	7/17/2019	8/10/2019	24	28	OK
MW-39	Fluoride	7/17/2019	8/11/2019	25	28	OK
MW-39	Carbon tetrachloride	7/17/2019	7/19/2019	2	14	OK
MW-39	Acetone	7/17/2019	7/19/2019	2	14	OK
MW-39	Chloroform	7/17/2019	7/19/2019	2	14	OK
MW-39	Benzene	7/17/2019	7/19/2019	2	14	OK
MW-39	Chloromethane	7/17/2019	7/19/2019	2	14	OK
MW-39	Iron	7/17/2019	8/1/2019	15	180	OK
MW-39	Lead	7/17/2019	8/1/2019	15	180	OK
MW-39	Magnesium	7/17/2019	7/30/2019	13	180	OK
MW-39	Manganese	7/17/2019	8/2/2019	16	180	OK
MW-39	Mercury	7/17/2019	7/30/2019	13	180	OK
MW-39	Molybdenum	7/17/2019	8/1/2019	15	180	OK
MW-39	Nickel	7/17/2019	8/1/2019	15	180	OK
MW-39	Potassium	7/17/2019	7/31/2019	14	180	OK
MW-39	Silver	7/17/2019	8/1/2019	15	180	OK
MW-39	Sodium	7/17/2019	7/30/2019	13	180	OK
MW-39	Thallium	7/17/2019	8/1/2019	15	180	OK
MW-39	Tin	7/17/2019	8/2/2019	16	180	OK
MW-39	Arsenic	7/17/2019	8/1/2019	15	180	OK
MW-39	Beryllium	7/17/2019	8/1/2019	15	180	OK
MW-39	Cadmium	7/17/2019	8/1/2019	15	180	OK
MW-39	Chromium	7/17/2019	8/1/2019	15	180	OK
MW-39	Cobalt	7/17/2019	8/1/2019	15	180	OK
MW-39	Copper	7/17/2019	8/2/2019	16	180	OK
MW-39	Uranium	7/17/2019	8/1/2019	15	180	OK
MW-39	Vanadium	7/17/2019	7/30/2019	13	180	OK
MW-39	Zinc	7/17/2019	8/2/2019	16	180	OK
MW-39	Calcium	7/17/2019	7/30/2019	13	180	OK
MW-39	Methylene chloride	7/17/2019	7/19/2019	2	14	OK
MW-39	Ammonia (as N)	7/17/2019	7/29/2019	12	28	OK
MW-39	Selenium	7/17/2019	8/1/2019	15	180	OK
MW-39	2-Butanone	7/17/2019	7/19/2019	2	14	OK
MW-39	Naphthalene	7/17/2019	7/19/2019	2	14	OK
MW-39	Bicarbonate (as CaCO3)	7/17/2019	7/23/2019	6	14	OK
MW-39	Carbonate (as CaCO3)	7/17/2019	7/23/2019	6	14	OK
MW-39	Gross Radium Alpha	7/17/2019	7/26/2019	9	180	OK
MW-39	Nitrate/Nitrite (as N)	7/17/2019	7/22/2019	5	28	OK
MW-39	Total Dissolved Solids	7/17/2019	7/22/2019	5	7	OK
MW-40	Toluene	7/16/2019	7/19/2019	3	14	OK
MW-40	Tetrahydrofuran	7/16/2019	7/19/2019	3	14	OK
MW-40	Xylenes, Total	7/16/2019	7/19/2019	3	14	OK
MW-40	Sulfate	7/16/2019	8/12/2019	27	28	OK
MW-40	Chloride	7/16/2019	8/12/2019	27	28	OK
MW-40	Fluoride	7/16/2019	8/12/2019	27	28	OK
MW-40	Carbon tetrachloride	7/16/2019	7/19/2019	3	14	OK
MW-40	Acetone	7/16/2019	7/19/2019	3	14	OK
MW-40	Chloroform	7/16/2019	7/19/2019	3	14	OK
MW-40	Benzene	7/16/2019	7/19/2019	3	14	OK
MW-40	Chloromethane	7/16/2019	7/19/2019	3	14	OK

G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-40	Iron	7/16/2019	8/1/2019	16	180	OK
MW-40	Lead	7/16/2019	8/2/2019	17	180	OK
MW-40	Magnesium	7/16/2019	7/30/2019	14	180	OK
MW-40	Manganese	7/16/2019	8/2/2019	17	180	OK
MW-40	Mercury	7/16/2019	7/30/2019	14	180	OK
MW-40	Molybdenum	7/16/2019	8/1/2019	16	180	OK
MW-40	Nickel	7/16/2019	8/1/2019	16	180	OK
MW-40	Potassium	7/16/2019	7/31/2019	15	180	OK
MW-40	Silver	7/16/2019	8/1/2019	16	180	OK
MW-40	Sodium	7/16/2019	7/30/2019	14	180	OK
MW-40	Thallium	7/16/2019	8/2/2019	17	180	OK
MW-40	Tin	7/16/2019	8/2/2019	17	180	OK
MW-40	Arsenic	7/16/2019	8/1/2019	16	180	OK
MW-40	Beryllium	7/16/2019	8/2/2019	17	180	OK
MW-40	Cadmium	7/16/2019	8/1/2019	16	180	OK
MW-40	Chromium	7/16/2019	8/1/2019	16	180	OK
MW-40	Cobalt	7/16/2019	8/1/2019	16	180	OK
MW-40	Copper	7/16/2019	8/2/2019	17	180	OK
MW-40	Uranium	7/16/2019	8/1/2019	16	180	OK
MW-40	Vanadium	7/16/2019	7/30/2019	14	180	OK
MW-40	Zinc	7/16/2019	8/2/2019	17	180	OK
MW-40	Calcium	7/16/2019	7/30/2019	14	180	OK
MW-40	Methylene chloride	7/16/2019	7/19/2019	3	14	OK
MW-40	Ammonia (as N)	7/16/2019	7/29/2019	13	28	OK
MW-40	Selenium	7/16/2019	8/1/2019	16	180	OK
MW-40	2-Butanone	7/16/2019	7/19/2019	3	14	OK
MW-40	Naphthalene	7/16/2019	7/19/2019	3	14	OK
MW-40	Bicarbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-40	Carbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-40	Gross Radium Alpha	7/16/2019	7/26/2019	10	180	OK
MW-40	Nitrate/Nitrite (as N)	7/16/2019	7/22/2019	6	28	OK
MW-40	Total Dissolved Solids	7/16/2019	7/22/2019	6	7	OK
MW-65	Toluene	7/16/2019	7/19/2019	3	14	OK
MW-65	Tetrahydrofuran	7/16/2019	7/19/2019	3	14	OK
MW-65	Xylenes, Total	7/16/2019	7/19/2019	3	14	OK
MW-65	Sulfate	7/16/2019	8/12/2019	27	28	OK
MW-65	Chloride	7/16/2019	8/12/2019	27	28	OK
MW-65	Fluoride	7/16/2019	8/12/2019	27	28	OK
MW-65	Carbon tetrachloride	7/16/2019	7/19/2019	3	14	OK
MW-65	Acetone	7/16/2019	7/19/2019	3	14	OK
MW-65	Chloroform	7/16/2019	7/19/2019	3	14	OK
MW-65	Benzene	7/16/2019	7/19/2019	3	14	OK
MW-65	Chloromethane	7/16/2019	7/19/2019	3	14	OK
MW-65	Iron	7/16/2019	8/1/2019	16	180	OK
MW-65	Lead	7/16/2019	8/2/2019	17	180	OK
MW-65	Magnesium	7/16/2019	7/30/2019	14	180	OK
MW-65	Manganese	7/16/2019	8/2/2019	17	180	OK
MW-65	Mercury	7/16/2019	7/30/2019	14	180	OK
MW-65	Molybdenum	7/16/2019	8/1/2019	16	180	OK
MW-65	Nickel	7/16/2019	8/1/2019	16	180	OK
MW-65	Potassium	7/16/2019	7/31/2019	15	180	OK
MW-65	Silver	7/16/2019	8/1/2019	16	180	OK
MW-65	Sodium	7/16/2019	7/30/2019	14	180	OK

G-2A: Quarterly Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
MW-65	Thallium	7/16/2019	8/2/2019	17	180	OK
MW-65	Tin	7/16/2019	8/2/2019	17	180	OK
MW-65	Arsenic	7/16/2019	8/1/2019	16	180	OK
MW-65	Beryllium	7/16/2019	8/2/2019	17	180	OK
MW-65	Cadmium	7/16/2019	8/1/2019	16	180	OK
MW-65	Chromium	7/16/2019	8/1/2019	16	180	OK
MW-65	Cobalt	7/16/2019	8/1/2019	16	180	OK
MW-65	Copper	7/16/2019	8/2/2019	17	180	OK
MW-65	Uranium	7/16/2019	8/1/2019	16	180	OK
MW-65	Vanadium	7/16/2019	7/30/2019	14	180	OK
MW-65	Zinc	7/16/2019	8/2/2019	17	180	OK
MW-65	Calcium	7/16/2019	7/30/2019	14	180	OK
MW-65	Methylene chloride	7/16/2019	7/19/2019	3	14	OK
MW-65	Ammonia (as N)	7/16/2019	7/29/2019	13	28	OK
MW-65	Selenium	7/16/2019	8/1/2019	16	180	OK
MW-65	2-Butanone	7/16/2019	7/19/2019	3	14	OK
MW-65	Naphthalene	7/16/2019	7/19/2019	3	14	OK
MW-65	Bicarbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-65	Carbonate (as CaCO3)	7/16/2019	7/23/2019	7	14	OK
MW-65	Gross Radium Alpha	7/16/2019	7/26/2019	10	180	OK
MW-65	Nitrate/Nitrite (as N)	7/16/2019	7/22/2019	6	28	OK
MW-65	Total Dissolved Solids	7/16/2019	7/22/2019	6	7	OK

G-2B: Accelerated Holding Time Evaluation

Location ID	Parameter Name	Sample Date	Analysis Date	Hold Time (Days)	Allowed Hold Time (Days)	Hold Time Check
Trip Blank	Toluene	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Tetrahydrofuran	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Xylenes, Total	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Carbon tetrachloride	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Acetone	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Chloroform	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Benzene	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Chloromethane	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Methylene chloride	8/6/2019	8/8/2019	2	14	OK
Trip Blank	2-Butanone	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Naphthalene	8/6/2019	8/8/2019	2	14	OK
Trip Blank	Chloroform	9/24/2019	9/27/2019	3	14	OK
Trip Blank	Methylene chloride	9/24/2019	9/27/2019	3	14	OK
MW-11	Manganese	8/5/2019	8/16/2019	11	180	OK
MW-11	Manganese	9/24/2019	10/2/2019	8	180	OK
MW-25	Cadmium	8/6/2019	8/16/2019	10	180	OK
MW-25	Cadmium	9/23/2019	10/15/2019	22	180	OK
MW-26	Toluene	8/6/2019	8/8/2019	2	14	OK
MW-26	Tetrahydrofuran	8/6/2019	8/8/2019	2	14	OK
MW-26	Xylenes, Total	8/6/2019	8/8/2019	2	14	OK
MW-26	Chloride	8/6/2019	8/13/2019	7	28	OK
MW-26	Carbon tetrachloride	8/6/2019	8/8/2019	2	14	OK
MW-26	Acetone	8/6/2019	8/8/2019	2	14	OK
MW-26	Chloroform	8/6/2019	8/8/2019	2	14	OK
MW-26	Benzene	8/6/2019	8/8/2019	2	14	OK
MW-26	Chloromethane	8/6/2019	8/8/2019	2	14	OK
MW-26	Methylene chloride	8/6/2019	8/8/2019	2	14	OK
MW-26	Ammonia (as N)	8/6/2019	8/15/2019	9	28	OK
MW-26	2-Butanone	8/6/2019	8/8/2019	2	14	OK
MW-26	Naphthalene	8/6/2019	8/8/2019	2	14	OK
MW-26	Nitrate/Nitrite (as N)	8/6/2019	8/7/2019	1	28	OK
MW-26	Chloride	9/24/2019	10/4/2019	10	28	OK
MW-26	Chloroform	9/24/2019	9/27/2019	3	14	OK
MW-26	Methylene chloride	9/24/2019	9/27/2019	3	14	OK
MW-26	Ammonia (as N)	9/24/2019	10/4/2019	10	28	OK
MW-26	Nitrate/Nitrite (as N)	9/24/2019	9/27/2019	3	28	OK
MW-30	Chloride	8/6/2019	8/13/2019	7	28	OK
MW-30	Uranium	8/6/2019	8/16/2019	10	180	OK
MW-30	Selenium	8/6/2019	8/16/2019	10	180	OK
MW-30	Nitrate/Nitrite (as N)	8/6/2019	8/7/2019	1	28	OK
MW-30	Chloride	9/24/2019	10/4/2019	10	28	OK
MW-30	Uranium	9/24/2019	10/3/2019	9	180	OK
MW-30	Selenium	9/24/2019	10/2/2019	8	180	OK
MW-30	Nitrate/Nitrite (as N)	9/24/2019	9/27/2019	3	28	OK
MW-31	Chloride	8/5/2019	8/13/2019	8	28	OK
MW-31	Nitrate/Nitrite (as N)	8/5/2019	8/7/2019	2	28	OK
MW-31	Chloride	9/23/2019	10/4/2019	11	28	OK
MW-31	Nitrate/Nitrite (as N)	9/23/2019	9/27/2019	4	28	OK
MW-65	Chloride	8/6/2019	8/13/2019	7	28	OK
MW-65	Uranium	8/6/2019	8/16/2019	10	180	OK
MW-65	Selenium	8/6/2019	8/16/2019	10	180	OK
MW-65	Nitrate/Nitrite (as N)	8/6/2019	8/7/2019	1	28	OK

G-3A: Quarterly Sample Laboratory Receipt Temperature Check

Sample Batch	Wells in Batch	Temperature
GEL 485412	MW-11, MW-14, MW-25, MW-26, MW-28, MW-30, MW-31, MW-36, MW-38, MW-39, MW-40, MW-65	NA
AWAL 1907511	MW-05, MW-11, MW-12, MW-14, MW-24, MW-25, MW-26, MW-27, MW-28, MW-30, MW-31, MW-35, MW-36, MW-38, MW-39, MW-40, MW-65, Trip Blank	1.8 °C
AWAL 1908464	MW-27 Resample, MW-28 Resample, MW-32	0.8 °C

N/A = These shipments contained samples for the analysis of gross alpha only. Per Table 1 in the approved QAP, samples submitted for gross alpha analyses do not have a sample temperature requirement.

G-3B: Accelerated Sample Laboratory Receipt Temperature Check

Sample Batch	Wells in Batch	Temperature
AWAL 1908182 - August	MW-11, MW-25, MW-26, MW-30, MW-31, MW-65, Trip Blank	0.2 °C
AWAL 1909661 - September	MW-11, MW-25, MW-26, MW-30, MW-31, MW-65, Trip Blank	0.2 °C

N/A = These shipments contained samples for the analysis of gross alpha only. Per Table 1 in the approved QAP, samples submitted for gross alpha analyses do not have a sample temperature requirement.

G-4A: Quarterly Sample Analytical Method Check

Parameter	QAP Method	Method Used by Lab
Ammonia (as N)	A4500-NH3 G or E350.1	E350.1
Nitrate + Nitrite (as N)	E353.1 or E353.2	E353.2
Metals	E200.7 or E200.8	E200.7 and E200.8
Gross Alpha	E900.0 or E900.1 or E903.0	E903.0
VOCs	SW8260B or SW8260C	SW8260C
Chloride	A4500-Cl B or A4500-Cl E or E300.0	E300.0
Fluoride	A4500-F C or E300.0	E300.0
Sulfate	A4500-SO4 E or E300.0	E300.0
TDS	A2540 C	A2540 C
Carbonate as CO ₃ , Bicarbonate as HCO ₃	A2320 B	A2320 B
Mercury	E245.1 or E200.7 or E200.8	E245.1
Calcium, Magnesium, Potassium, Sodium	E200.7	E200.7

G-4B: Accelerated Sample Analytical Method Check

Parameter	QAP Method	Method Used by Lab
Ammonia (as N)	A4500-NH3 G or E350.1	E350.1
Nitrate + Nitrite (as N)	E353.1 or E353.2	E353.2
Metals	E200.7 or E200.8	E200.7 or E200.8
VOCs	SW8260B or SW8260C or SW8260D	SW8260D
Chloride	A4500-Cl B or A4500-Cl E or E300.0	E300.0
Fluoride	A4500-F C or E300.0	A4500-F C
Sulfate	A4500-SO4 E or E300.0	E300.0
TDS	A2540 C	A2540 C

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
Trip Blank	Toluene	1	ug/L	U	1	1	OK
Trip Blank	Tetrahydrofuran	1	ug/L	U	1	1	OK
Trip Blank	Xylenes, Total	1	ug/L	U	1	1	OK
Trip Blank	Carbon tetrachloride	1	ug/L	U	1	1	OK
Trip Blank	Acetone	20	ug/L	U	1	20	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Benzene	1	ug/L	U	1	1	OK
Trip Blank	Chloromethane	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
Trip Blank	2-Butanone	20	ug/L	U	1	20	OK
Trip Blank	Naphthalene	1	ug/L	U	1	1	OK
MW-05	Uranium	0.3	ug/L		2	0.3	OK
MW-11	Toluene	1	ug/L	U	1	1	OK
MW-11	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-11	Xylenes, Total	1	ug/L	U	1	1	OK
MW-11	Sulfate	75	mg/L		100	1	OK
MW-11	Chloride	1	mg/L		10	1	OK
MW-11	Fluoride	0.1	mg/L		1	0.1	OK
MW-11	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-11	Acetone	20	ug/L	U	1	20	OK
MW-11	Chloroform	1	ug/L	U	1	1	OK
MW-11	Benzene	1	ug/L	U	1	1	OK
MW-11	Chloromethane	1	ug/L	U	1	1	OK
MW-11	Iron	30	ug/L	U	5	30	OK
MW-11	Lead	1	ug/L	U	5	1	OK
MW-11	Magnesium	20	mg/L		20	0.5	OK
MW-11	Manganese	10	ug/L		20	10	OK
MW-11	Mercury	0.5	ug/L	U	1	0.5	OK
MW-11	Molybdenum	10	ug/L	U	20	10	OK
MW-11	Nickel	20	ug/L	U	20	20	OK
MW-11	Potassium	1	mg/L		1	0.5	OK
MW-11	Silver	10	ug/L	U	20	10	OK
MW-11	Sodium	20	mg/L		20	0.5	OK
MW-11	Thallium	0.5	ug/L	U	5	0.5	OK
MW-11	Tin	100	ug/L	U	20	100	OK
MW-11	Arsenic	5	ug/L	U	20	5	OK
MW-11	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-11	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-11	Chromium	25	ug/L	U	20	25	OK
MW-11	Cobalt	10	ug/L	U	20	10	OK
MW-11	Copper	10	ug/L	U	20	10	OK
MW-11	Uranium	0.3	ug/L		2	0.3	OK
MW-11	Vanadium	15	ug/L	U	1	15	OK
MW-11	Zinc	10	ug/L	U	20	10	OK
MW-11	Calcium	20	mg/L		20	0.5	OK
MW-11	Methylene chloride	1	ug/L	U	1	1	OK
MW-11	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-11	Selenium	5	ug/L	U	20	5	OK
MW-11	2-Butanone	20	ug/L	U	1	20	OK
MW-11	Naphthalene	1	ug/L	U	1	1	OK
MW-11	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-11	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-11	Gross Radium Alpha	0.932	pCi/L	U	1	1	OK
MW-11	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-11	Total Dissolved Solids	20	MG/L		2	10	OK
MW-12	Uranium	0.3	ug/L		2	0.3	OK
MW-14	Toluene	1	ug/L	U	1	1	OK
MW-14	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-14	Xylenes, Total	1	ug/L	U	1	1	OK
MW-14	Sulfate	150	mg/L		200	1	OK
MW-14	Chloride	1	mg/L		10	1	OK
MW-14	Fluoride	0.1	mg/L		1	0.1	OK
MW-14	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-14	Acetone	20	ug/L	U	1	20	OK
MW-14	Chloroform	1	ug/L	U	1	1	OK
MW-14	Benzene	1	ug/L	U	1	1	OK
MW-14	Chloromethane	1	ug/L	U	1	1	OK
MW-14	Iron	30	ug/L	U	5	30	OK
MW-14	Lead	1	ug/L	U	5	1	OK
MW-14	Magnesium	20	mg/L		20	0.5	OK
MW-14	Manganese	10	ug/L		20	10	OK
MW-14	Mercury	0.5	ug/L	U	1	0.5	OK
MW-14	Molybdenum	10	ug/L	U	20	10	OK
MW-14	Nickel	20	ug/L	U	20	20	OK
MW-14	Potassium	1	mg/L		1	0.5	OK
MW-14	Silver	10	ug/L	U	20	10	OK
MW-14	Sodium	20	mg/L		20	0.5	OK
MW-14	Thallium	0.5	ug/L	U	5	0.5	OK
MW-14	Tin	100	ug/L	U	20	100	OK
MW-14	Arsenic	5	ug/L	U	20	5	OK
MW-14	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-14	Cadmium	0.5	ug/L		20	0.5	OK
MW-14	Chromium	25	ug/L	U	20	25	OK
MW-14	Cobalt	10	ug/L	U	20	10	OK
MW-14	Copper	10	ug/L	U	20	10	OK
MW-14	Uranium	0.3	ug/L		2	0.3	OK
MW-14	Vanadium	15	ug/L	U	1	15	OK
MW-14	Zinc	10	ug/L		20	10	OK
MW-14	Calcium	20	mg/L		20	0.5	OK
MW-14	Methylene chloride	1	ug/L	U	1	1	OK
MW-14	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-14	Selenium	5	ug/L	U	20	5	OK
MW-14	2-Butanone	20	ug/L	U	1	20	OK
MW-14	Naphthalene	1	ug/L	U	1	1	OK
MW-14	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-14	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-14	Gross Radium Alpha	0.992	pCi/L		1	1	OK
MW-14	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-14	Total Dissolved Solids	20	MG/L		2	10	OK
MW-24	Fluoride	0.1	mg/L		1	0.1	OK
MW-24	Nickel	20	ug/L		20	20	OK
MW-24	Thallium	0.5	ug/L		5	0.5	OK
MW-24	Beryllium	0.5	ug/L		5	0.5	OK
MW-24	Cadmium	0.5	ug/L		20	0.5	OK
MW-25	Toluene	1	ug/L	U	1	1	OK
MW-25	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-25	Xylenes, Total	1	ug/L	U	1	1	OK
MW-25	Sulfate	150	mg/L		200	1	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-25	Chloride	1	mg/L		10	1	OK
MW-25	Fluoride	0.1	mg/L		1	0.1	OK
MW-25	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-25	Acetone	20	ug/L	U	1	20	OK
MW-25	Chloroform	1	ug/L	U	1	1	OK
MW-25	Benzene	1	ug/L	U	1	1	OK
MW-25	Chloromethane	1	ug/L	U	1	1	OK
MW-25	Iron	30	ug/L	U	5	30	OK
MW-25	Lead	1	ug/L	U	5	1	OK
MW-25	Magnesium	20	mg/L		20	0.5	OK
MW-25	Manganese	10	ug/L		20	10	OK
MW-25	Mercury	0.5	ug/L	U	1	0.5	OK
MW-25	Molybdenum	10	ug/L		20	10	OK
MW-25	Nickel	20	ug/L	U	20	20	OK
MW-25	Potassium	1	mg/L		1	0.5	OK
MW-25	Silver	10	ug/L	U	20	10	OK
MW-25	Sodium	20	mg/L		20	0.5	OK
MW-25	Thallium	0.5	ug/L		5	0.5	OK
MW-25	Tin	100	ug/L	U	20	100	OK
MW-25	Arsenic	5	ug/L	U	20	5	OK
MW-25	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-25	Cadmium	0.5	ug/L		20	0.5	OK
MW-25	Chromium	25	ug/L	U	20	25	OK
MW-25	Cobalt	10	ug/L	U	20	10	OK
MW-25	Copper	10	ug/L	U	20	10	OK
MW-25	Uranium	0.3	ug/L		2	0.3	OK
MW-25	Vanadium	15	ug/L	U	1	15	OK
MW-25	Zinc	10	ug/L	U	20	10	OK
MW-25	Calcium	20	mg/L		20	0.5	OK
MW-25	Methylene chloride	1	ug/L	U	1	1	OK
MW-25	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-25	Selenium	5	ug/L	U	20	5	OK
MW-25	2-Butanone	20	ug/L	U	1	20	OK
MW-25	Naphthalene	1	ug/L	U	1	1	OK
MW-25	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-25	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-25	Gross Radium Alpha	0.9	pCi/L		1	1	OK
MW-25	Nitrate/Nitrite (as N)	0.1	mg/L	U	1	0.1	OK
MW-25	Total Dissolved Solids	20	MG/L		2	10	OK
MW-26	Toluene	1	ug/L	U	1	1	OK
MW-26	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-26	Xylenes, Total	1	ug/L	U	1	1	OK
MW-26	Sulfate	150	mg/L		200	1	OK
MW-26	Chloride	1	mg/L		10	1	OK
MW-26	Fluoride	0.1	mg/L		1	0.1	OK
MW-26	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-26	Acetone	20	ug/L	U	1	20	OK
MW-26	Chloroform	50	ug/L		50	1	OK
MW-26	Benzene	1	ug/L	U	1	1	OK
MW-26	Chloromethane	1	ug/L	U	1	1	OK
MW-26	Iron	30	ug/L		5	30	OK
MW-26	Lead	1	ug/L	U	5	1	OK
MW-26	Magnesium	20	mg/L		20	0.5	OK
MW-26	Manganese	10	ug/L		20	10	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-26	Mercury	0.5	ug/L	U	1	0.5	OK
MW-26	Molybdenum	10	ug/L	U	20	10	OK
MW-26	Nickel	20	ug/L	U	20	20	OK
MW-26	Potassium	1	mg/L		1	0.5	OK
MW-26	Silver	10	ug/L	U	20	10	OK
MW-26	Sodium	20	mg/L		20	0.5	OK
MW-26	Thallium	0.5	ug/L	U	5	0.5	OK
MW-26	Tin	100	ug/L	U	20	100	OK
MW-26	Arsenic	5	ug/L	U	20	5	OK
MW-26	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-26	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-26	Chromium	25	ug/L	U	20	25	OK
MW-26	Cobalt	10	ug/L	U	20	10	OK
MW-26	Copper	10	ug/L	U	20	10	OK
MW-26	Uranium	0.3	ug/L		2	0.3	OK
MW-26	Vanadium	15	ug/L	U	1	15	OK
MW-26	Zinc	10	ug/L	U	20	10	OK
MW-26	Calcium	20	mg/L		20	0.5	OK
MW-26	Methylene chloride	1	ug/L		1	1	OK
MW-26	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-26	Selenium	5	ug/L		20	5	OK
MW-26	2-Butanone	20	ug/L	U	1	20	OK
MW-26	Naphthalene	1	ug/L	U	1	1	OK
MW-26	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-26	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-26	Gross Radium Alpha	0.971	pCi/L		1	1	OK
MW-26	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-26	Total Dissolved Solids	20	MG/L		2	10	OK
MW-27	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-27	Chloride	1	mg/L		10	1	OK
MW-28	Uranium	0.3	ug/L		2	0.3	OK
MW-28	Selenium	5	ug/L		20	5	OK
MW-28	Gross Radium Alpha	0.216	pCi/L		1	1	OK
MW-28	Chloride	10	mg/L		100	1	OK
MW-30	Toluene	1	ug/L	U	1	1	OK
MW-30	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-30	Xylenes, Total	1	ug/L	U	1	1	OK
MW-30	Sulfate	75	mg/L		100	1	OK
MW-30	Chloride	10	mg/L		100	1	OK
MW-30	Fluoride	0.1	mg/L		1	0.1	OK
MW-30	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-30	Acetone	20	ug/L	U	1	20	OK
MW-30	Chloroform	1	ug/L	U	1	1	OK
MW-30	Benzene	1	ug/L	U	1	1	OK
MW-30	Chloromethane	1	ug/L	U	1	1	OK
MW-30	Iron	30	ug/L	U	5	30	OK
MW-30	Lead	1	ug/L	U	5	1	OK
MW-30	Magnesium	20	mg/L		20	0.5	OK
MW-30	Manganese	10	ug/L		20	10	OK
MW-30	Mercury	0.5	ug/L	U	1	0.5	OK
MW-30	Molybdenum	10	ug/L	U	20	10	OK
MW-30	Nickel	20	ug/L	U	20	20	OK
MW-30	Potassium	1	mg/L		1	0.5	OK
MW-30	Silver	10	ug/L	U	20	10	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-30	Sodium	20	mg/L		20	0.5	OK
MW-30	Thallium	0.5	ug/L	U	5	0.5	OK
MW-30	Tin	100	ug/L	U	20	100	OK
MW-30	Arsenic	5	ug/L	U	20	5	OK
MW-30	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-30	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-30	Chromium	25	ug/L	U	20	25	OK
MW-30	Cobalt	10	ug/L	U	20	10	OK
MW-30	Copper	10	ug/L	U	20	10	OK
MW-30	Uranium	0.3	ug/L		2	0.3	OK
MW-30	Vanadium	15	ug/L	U	1	15	OK
MW-30	Zinc	10	ug/L	U	20	10	OK
MW-30	Calcium	20	mg/L		20	0.5	OK
MW-30	Methylene chloride	1	ug/L	U	1	1	OK
MW-30	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-30	Selenium	5	ug/L		20	5	OK
MW-30	2-Butanone	20	ug/L	U	1	20	OK
MW-30	Naphthalene	1	ug/L	U	1	1	OK
MW-30	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-30	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-30	Gross Radium Alpha	0.989	pCi/L	U	1	1	OK
MW-30	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-30	Total Dissolved Solids	20	MG/L		2	10	OK
MW-31	Toluene	1	ug/L	U	1	1	OK
MW-31	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-31	Xylenes, Total	1	ug/L	U	1	1	OK
MW-31	Sulfate	75	mg/L		100	1	OK
MW-31	Chloride	10	mg/L		100	1	OK
MW-31	Fluoride	0.1	mg/L		1	0.1	OK
MW-31	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-31	Acetone	20	ug/L	U	1	20	OK
MW-31	Chloroform	1	ug/L	U	1	1	OK
MW-31	Benzene	1	ug/L	U	1	1	OK
MW-31	Chloromethane	1	ug/L	U	1	1	OK
MW-31	Iron	30	ug/L	U	5	30	OK
MW-31	Lead	1	ug/L	U	5	1	OK
MW-31	Magnesium	20	mg/L		20	0.5	OK
MW-31	Manganese	10	ug/L	U	20	10	OK
MW-31	Mercury	0.5	ug/L	U	1	0.5	OK
MW-31	Molybdenum	10	ug/L	U	20	10	OK
MW-31	Nickel	20	ug/L	U	20	20	OK
MW-31	Potassium	1	mg/L		1	0.5	OK
MW-31	Silver	10	ug/L	U	20	10	OK
MW-31	Sodium	20	mg/L		20	0.5	OK
MW-31	Thallium	0.5	ug/L	U	5	0.5	OK
MW-31	Tin	100	ug/L	U	20	100	OK
MW-31	Arsenic	5	ug/L	U	20	5	OK
MW-31	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-31	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-31	Chromium	25	ug/L	U	20	25	OK
MW-31	Cobalt	10	ug/L	U	20	10	OK
MW-31	Copper	10	ug/L	U	20	10	OK
MW-31	Uranium	0.3	ug/L		2	0.3	OK
MW-31	Vanadium	15	ug/L	U	1	15	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-31	Zinc	10	ug/L	U	20	10	OK
MW-31	Calcium	20	mg/L		20	0.5	OK
MW-31	Methylene chloride	1	ug/L	U	1	1	OK
MW-31	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-31	Selenium	5	ug/L		20	5	OK
MW-31	2-Butanone	20	ug/L	U	1	20	OK
MW-31	Naphthalene	1	ug/L	U	1	1	OK
MW-31	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-31	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-31	Gross Radium Alpha	0.952	pCi/L	U	1	1	OK
MW-31	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-31	Total Dissolved Solids	20	MG/L		2	10	OK
MW-32	Chloride	1	mg/L		10	1	OK
MW-35	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-36	Toluene	1	ug/L	U	1	1	OK
MW-36	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-36	Xylenes, Total	1	ug/L	U	1	1	OK
MW-36	Sulfate	150	mg/L		200	1	OK
MW-36	Chloride	1	mg/L		10	1	OK
MW-36	Fluoride	0.1	mg/L		1	0.1	OK
MW-36	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-36	Acetone	20	ug/L	U	1	20	OK
MW-36	Chloroform	1	ug/L	U	1	1	OK
MW-36	Benzene	1	ug/L	U	1	1	OK
MW-36	Chloromethane	1	ug/L	U	1	1	OK
MW-36	Iron	30	ug/L	U	5	30	OK
MW-36	Lead	1	ug/L	U	5	1	OK
MW-36	Magnesium	20	mg/L		20	0.5	OK
MW-36	Manganese	10	ug/L	U	20	10	OK
MW-36	Mercury	0.5	ug/L	U	1	0.5	OK
MW-36	Molybdenum	10	ug/L	U	20	10	OK
MW-36	Nickel	20	ug/L	U	20	20	OK
MW-36	Potassium	1	mg/L		1	0.5	OK
MW-36	Silver	10	ug/L	U	20	10	OK
MW-36	Sodium	20	mg/L		20	0.5	OK
MW-36	Thallium	0.5	ug/L		5	0.5	OK
MW-36	Tin	100	ug/L	U	20	100	OK
MW-36	Arsenic	5	ug/L	U	20	5	OK
MW-36	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-36	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-36	Chromium	25	ug/L	U	20	25	OK
MW-36	Cobalt	10	ug/L	U	20	10	OK
MW-36	Copper	10	ug/L	U	5	10	OK
MW-36	Uranium	0.3	ug/L		2	0.3	OK
MW-36	Vanadium	15	ug/L	U	1	15	OK
MW-36	Zinc	10	ug/L	U	20	10	OK
MW-36	Calcium	20	mg/L		20	0.5	OK
MW-36	Methylene chloride	1	ug/L	U	1	1	OK
MW-36	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-36	Selenium	5	ug/L		20	5	OK
MW-36	2-Butanone	20	ug/L	U	1	20	OK
MW-36	Naphthalene	1	ug/L	U	1	1	OK
MW-36	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-36	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-36	Gross Radium Alpha	0.951	pCi/L		1	1	OK
MW-36	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-36	Total Dissolved Solids	20	MG/L		2	10	OK
MW-38	Toluene	1	ug/L	U	1	1	OK
MW-38	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-38	Xylenes, Total	1	ug/L	U	1	1	OK
MW-38	Sulfate	150	mg/L		200	1	OK
MW-38	Chloride	1	mg/L		10	1	OK
MW-38	Fluoride	0.1	mg/L		1	0.1	OK
MW-38	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-38	Acetone	20	ug/L	U	1	20	OK
MW-38	Chloroform	1	ug/L	U	1	1	OK
MW-38	Benzene	1	ug/L	U	1	1	OK
MW-38	Chloromethane	1	ug/L	U	1	1	OK
MW-38	Iron	30	ug/L	U	5	30	OK
MW-38	Lead	1	ug/L	U	5	1	OK
MW-38	Magnesium	20	mg/L		20	0.5	OK
MW-38	Manganese	10	ug/L	U	20	10	OK
MW-38	Mercury	0.5	ug/L	U	1	0.5	OK
MW-38	Molybdenum	10	ug/L	U	20	10	OK
MW-38	Nickel	20	ug/L	U	20	20	OK
MW-38	Potassium	1	mg/L		1	0.5	OK
MW-38	Silver	10	ug/L	U	20	10	OK
MW-38	Sodium	20	mg/L		20	0.5	OK
MW-38	Thallium	0.5	ug/L	U	5	0.5	OK
MW-38	Tin	100	ug/L	U	20	100	OK
MW-38	Arsenic	5	ug/L	U	20	5	OK
MW-38	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-38	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-38	Chromium	25	ug/L	U	20	25	OK
MW-38	Cobalt	10	ug/L	U	20	10	OK
MW-38	Copper	10	ug/L	U	20	10	OK
MW-38	Uranium	0.3	ug/L		2	0.3	OK
MW-38	Vanadium	15	ug/L	U	1	15	OK
MW-38	Zinc	10	ug/L	U	20	10	OK
MW-38	Calcium	20	mg/L		20	0.5	OK
MW-38	Methylene chloride	1	ug/L	U	1	1	OK
MW-38	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-38	Selenium	5	ug/L		20	5	OK
MW-38	2-Butanone	20	ug/L	U	1	20	OK
MW-38	Naphthalene	1	ug/L	U	1	1	OK
MW-38	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-38	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-38	Gross Radium Alpha	0.946	pCi/L		1	1	OK
MW-38	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-38	Total Dissolved Solids	20	MG/L		2	10	OK
MW-39	Toluene	1	ug/L	U	1	1	OK
MW-39	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-39	Xylenes, Total	1	ug/L	U	1	1	OK
MW-39	Sulfate	375	mg/L		500	1	OK
MW-39	Chloride	1	mg/L		10	1	OK
MW-39	Fluoride	0.1	mg/L		1	0.1	OK
MW-39	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-39	Acetone	20	ug/L	U	1	20	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-39	Chloroform	1	ug/L	U	1	1	OK
MW-39	Benzene	1	ug/L	U	1	1	OK
MW-39	Chloromethane	1	ug/L	U	1	1	OK
MW-39	Iron	1000	ug/L		200	30	OK
MW-39	Lead	1	ug/L	U	5	1	OK
MW-39	Magnesium	20	mg/L		20	0.5	OK
MW-39	Manganese	10	ug/L		40	10	OK
MW-39	Mercury	0.5	ug/L	U	1	0.5	OK
MW-39	Molybdenum	10	ug/L	U	20	10	OK
MW-39	Nickel	20	ug/L		20	20	OK
MW-39	Potassium	1	mg/L		1	0.5	OK
MW-39	Silver	10	ug/L	U	20	10	OK
MW-39	Sodium	20	mg/L		20	0.5	OK
MW-39	Thallium	0.5	ug/L		5	0.5	OK
MW-39	Tin	100	ug/L	U	20	100	OK
MW-39	Arsenic	5	ug/L	U	20	5	OK
MW-39	Beryllium	0.5	ug/L		5	0.5	OK
MW-39	Cadmium	0.5	ug/L		20	0.5	OK
MW-39	Chromium	25	ug/L	U	20	25	OK
MW-39	Cobalt	10	ug/L		20	10	OK
MW-39	Copper	10	ug/L		20	10	OK
MW-39	Uranium	0.3	ug/L		2	0.3	OK
MW-39	Vanadium	15	ug/L	U	1	15	OK
MW-39	Zinc	10	ug/L		20	10	OK
MW-39	Calcium	20	mg/L		20	0.5	OK
MW-39	Methylene chloride	1	ug/L	U	1	1	OK
MW-39	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-39	Selenium	5	ug/L	U	20	5	OK
MW-39	2-Butanone	20	ug/L	U	1	20	OK
MW-39	Naphthalene	1	ug/L	U	1	1	OK
MW-39	Bicarbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-39	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-39	Gross Radium Alpha	0.997	pCi/L		1	1	OK
MW-39	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-39	Total Dissolved Solids	20	MG/L		2	10	OK
MW-40	Toluene	1	ug/L	U	1	1	OK
MW-40	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-40	Xylenes, Total	1	ug/L	U	1	1	OK
MW-40	Sulfate	150	mg/L		200	1	OK
MW-40	Chloride	1	mg/L		10	1	OK
MW-40	Fluoride	0.1	mg/L		1	0.1	OK
MW-40	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-40	Acetone	20	ug/L	U	1	20	OK
MW-40	Chloroform	1	ug/L	U	1	1	OK
MW-40	Benzene	1	ug/L	U	1	1	OK
MW-40	Chloromethane	1	ug/L	U	1	1	OK
MW-40	Iron	30	ug/L	U	5	30	OK
MW-40	Lead	1	ug/L	U	5	1	OK
MW-40	Magnesium	20	mg/L		20	0.5	OK
MW-40	Manganese	10	ug/L		20	10	OK
MW-40	Mercury	0.5	ug/L	U	1	0.5	OK
MW-40	Molybdenum	10	ug/L	U	20	10	OK
MW-40	Nickel	20	ug/L	U	20	20	OK
MW-40	Potassium	1	mg/L		1	0.5	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-40	Silver	10	ug/L	U	20	10	OK
MW-40	Sodium	20	mg/L		20	0.5	OK
MW-40	Thallium	0.5	ug/L	U	5	0.5	OK
MW-40	Tin	100	ug/L	U	20	100	OK
MW-40	Arsenic	5	ug/L	U	20	5	OK
MW-40	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-40	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-40	Chromium	25	ug/L	U	20	25	OK
MW-40	Cobalt	10	ug/L	U	20	10	OK
MW-40	Copper	10	ug/L	U	5	10	OK
MW-40	Uranium	0.3	ug/L		2	0.3	OK
MW-40	Vanadium	15	ug/L	U	1	15	OK
MW-40	Zinc	10	ug/L	U	20	10	OK
MW-40	Calcium	20	mg/L		20	0.5	OK
MW-40	Methylene chloride	1	ug/L	U	1	1	OK
MW-40	Ammonia (as N)	0.05	mg/L	U	1	0.05	OK
MW-40	Selenium	5	ug/L		20	5	OK
MW-40	2-Butanone	20	ug/L	U	1	20	OK
MW-40	Naphthalene	1	ug/L	U	1	1	OK
MW-40	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-40	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-40	Gross Radium Alpha	0.924	pCi/L		1	1	OK
MW-40	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-40	Total Dissolved Solids	20	MG/L		2	10	OK
MW-65	Toluene	1	ug/L	U	1	1	OK
MW-65	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-65	Xylenes, Total	1	ug/L	U	1	1	OK
MW-65	Sulfate	150	mg/L		200	1	OK
MW-65	Chloride	2	mg/L		20	1	OK
MW-65	Fluoride	0.1	mg/L		1	0.1	OK
MW-65	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-65	Acetone	20	ug/L	U	1	20	OK
MW-65	Chloroform	1	ug/L	U	1	1	OK
MW-65	Benzene	1	ug/L	U	1	1	OK
MW-65	Chloromethane	1	ug/L	U	1	1	OK
MW-65	Iron	30	ug/L	U	5	30	OK
MW-65	Lead	1	ug/L	U	5	1	OK
MW-65	Magnesium	20	mg/L		20	0.5	OK
MW-65	Manganese	10	ug/L		20	10	OK
MW-65	Mercury	0.5	ug/L	U	1	0.5	OK
MW-65	Molybdenum	10	ug/L	U	20	10	OK
MW-65	Nickel	20	ug/L	U	20	20	OK
MW-65	Potassium	1	mg/L		1	0.5	OK
MW-65	Silver	10	ug/L	U	20	10	OK
MW-65	Sodium	20	mg/L		20	0.5	OK
MW-65	Thallium	0.5	ug/L	U	5	0.5	OK
MW-65	Tin	100	ug/L	U	20	100	OK
MW-65	Arsenic	5	ug/L	U	20	5	OK
MW-65	Beryllium	0.5	ug/L	U	5	0.5	OK
MW-65	Cadmium	0.5	ug/L	U	20	0.5	OK
MW-65	Chromium	25	ug/L	U	20	25	OK
MW-65	Cobalt	10	ug/L	U	20	10	OK
MW-65	Copper	10	ug/L	U	5	10	OK
MW-65	Uranium	0.3	ug/L		2	0.3	OK

G-5A Quarterly Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
MW-65	Vanadium	15	ug/L	U	1	15	OK
MW-65	Zinc	10	ug/L	U	20	10	OK
MW-65	Calcium	20	mg/L		20	0.5	OK
MW-65	Methylene chloride	1	ug/L	U	1	1	OK
MW-65	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-65	Selenium	5	ug/L	U	20	5	OK
MW-65	2-Butanone	20	ug/L	U	1	20	OK
MW-65	Naphthalene	1	ug/L	U	1	1	OK
MW-65	Bicarbonate (as CaCO3)	1	mg/L		1	1	OK
MW-65	Carbonate (as CaCO3)	1	mg/L	U	1	1	OK
MW-65	Gross Radium Alpha	0.932	pCi/L		1	1	OK
MW-65	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-65	Total Dissolved Solids	20	MG/L		2	10	OK

G-5B Accelerated Sample Reporting Limit Check

Location	Analyte	Lab Reporting Limit	Units	Qualifier	Dilution Factor	Required Reporting Limit	RL Check
Trip Blank	Toluene	1	ug/L	U	1	1	OK
Trip Blank	Tetrahydrofuran	1	ug/L	U	1	1	OK
Trip Blank	Xylenes, Total	1	ug/L	U	1	1	OK
Trip Blank	Carbon tetrachloride	1	ug/L	U	1	1	OK
Trip Blank	Acetone	20	ug/L	U	1	20	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Benzene	1	ug/L	U	1	1	OK
Trip Blank	Chloromethane	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
Trip Blank	2-Butanone	20	ug/L	U	1	20	OK
Trip Blank	Naphthalene	1	ug/L	U	1	1	OK
Trip Blank	Chloroform	1	ug/L	U	1	1	OK
Trip Blank	Methylene chloride	1	ug/L	U	1	1	OK
MW-11	Manganese	10	ug/L		20	10	OK
MW-11	Manganese	10	ug/L		20	10	OK
MW-25	Cadmium	0.5	ug/L		20	0.5	OK
MW-25	Cadmium	0.5	ug/L		20	0.5	OK
MW-26	Toluene	1	ug/L	U	1	1	OK
MW-26	Tetrahydrofuran	1	ug/L	U	1	1	OK
MW-26	Xylenes, Total	1	ug/L	U	1	1	OK
MW-26	Chloride	1	mg/L		10	1	OK
MW-26	Carbon tetrachloride	1	ug/L	U	1	1	OK
MW-26	Acetone	20	ug/L	U	1	20	OK
MW-26	Chloroform	100	ug/L		100	1	OK
MW-26	Benzene	1	ug/L	U	1	1	OK
MW-26	Chloromethane	1	ug/L	U	1	1	OK
MW-26	Methylene chloride	1	ug/L		1	1	OK
MW-26	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-26	2-Butanone	20	ug/L	U	1	20	OK
MW-26	Naphthalene	1	ug/L	U	1	1	OK
MW-26	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-26	Chloride	2	mg/L		20	1	OK
MW-26	Chloroform	20	ug/L		20	1	OK
MW-26	Methylene chloride	1	ug/L		1	1	OK
MW-26	Ammonia (as N)	0.05	mg/L		1	0.05	OK
MW-26	Nitrate/Nitrite (as N)	0.1	mg/L		1	0.1	OK
MW-30	Chloride	2	mg/L		20	1	OK
MW-30	Uranium	0.3	ug/L		2	0.3	OK
MW-30	Selenium	5	ug/L		20	5	OK
MW-30	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-30	Chloride	2	mg/L		20	1	OK
MW-30	Uranium	0.3	ug/L		2	0.3	OK
MW-30	Selenium	5	ug/L		20	5	OK
MW-30	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-31	Chloride	5	mg/L		50	1	OK
MW-31	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-31	Chloride	5	mg/L		50	1	OK
MW-31	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-65	Chloride	2	mg/L		20	1	OK
MW-65	Uranium	0.3	ug/L		2	0.3	OK
MW-65	Selenium	5	ug/L		20	5	OK
MW-65	Nitrate/Nitrite (as N)	0.1	mg/L		10	0.1	OK
MW-65	Manganese	10	ug/L		20	10	OK

G-6A: Quarterly Sample Trip Blank Evaluation

Lab Report	Constituent	Result
AWAL 1907511	2-Butanone	ND
	Acetone	ND
	Benzene	ND
	Carbon Tetrachloride	ND
	Chloroform	ND
	Chloromethane	ND
	Methylene Chloride	ND
	Naphthalene	ND
	Tetrahydrofuran	ND
	Toluene	ND
	Xylenes, Total	ND

G-6B: Accelerated Sample Trip Blank Evaluation

All trip blanks for the Accelerated samples were non detect.

Blank	Sample Date	Laboratory
AWAL 1908182	8/6/2019	AWAL
AWAL 1909661	9/24/2019	AWAL

G-7A: QA/QC Evaluation for Quarterly Sample Duplicates

Constituent	MW-11 7/16/2019	MW-65 7/16/2019	%RPD
Ammonia (as N) (mg/L)	0.8520	0.8280	2.86
Bicarbonate as CaCO ₃ (mg/L)	308	324	5.06
Calcium (mg/L)	113	111	1.79
Chloride (mg/L)	48.4	48.5	0.21
Fluoride (mg/L)	0.323	0.288	11.46
Magnesium (mg/L)	38	37	3.75
Manganese (mg/L)	0.199	0.194	2.54
Nitrate + Nitrite (as N) (mg/L)	0.558	0.555	0.54
Potassium (mg/L)	8.02	7.59	5.51
Sodium (mg/L)	641	627	2.21
Sulfate (mg/L)	1410	1380	2.15
TDS (mg/L)	1890	2060	8.61
Uranium (mg/L)	0.00108	0.00110	1.83
Radiologic Duplicate Tests			
Gross Alpha minus Rn & U*	1.0 U	1.20	N/A
* Duplicate checks reported for gross alpha minus RN and U are not %RPD. Calculated values are based on the formula in the approved QAP.			
Per the approved QAP, an RPD greater than 20% is acceptable if the reported results are less than 5 times the RL. These results are provided for information only.			
N/A - The duplicate test was not performed because both results were not greater than the RL.			

G-7B: QA/QC Evaluation for Accelerated Sample Duplicates

Constituent	MW-30 8/6/19	MW-65 8/6/19	%RPD*
Nitrate + Nitrite (as N) (mg/L)	15.8	16.2	2.50
Selenium (mg/L)	0.0509	0.0507	0.39
Uranium (mg/L)	0.00939	0.00935	0.43
Chloride (mg/L)	190	189	0.53
Constituent	MW-11 9/24/19	MW-65 9/24/19	%RPD
Manganese (mg/L)	0.174	0.181	3.94

G-8A: Quarterly Sample Radiologics Counting Error

Well	Gross Alpha minus Rn & U	Gross Alpha minus Rn and U Precision (+/-)	Counting Error ≤ 20%	GWCL	Within GWCL?
MW-11	1.00 U	0.284	NC	3.75	NC
MW-14	1.04	0.365	N	7.5	Y
MW-25	1.86	0.487	N	7.5	Y
MW-26	4.50	0.606	Y	4.69	NC
MW-28	1.20	0.137	Y	2.42	NC
MW-30	1.00 U	0.303	NC	3.75	NC
MW-31	1.00 U	0.344	NC	7.5	NC
MW-36	4.06	0.618	Y	7.5	NC
MW-38	4.07	0.622	Y	-	-
MW-39	17.9	1.470	Y	-	-
MW-40	5.24	0.746	Y	-	-
MW-65	1.20	0.411	N	3.75	Y

N/A - the counting error is less than 20% of the activity as required by the GWDP and this check column is not applicable.

NC = Not calculated. The sample results are nondetect and the check is not applicable.

G-8B: Radiologics Counting Error for Accelerated Samples

There are no accelerated samples collected for Gross Alpha.

G-9A: Quarterly Sample Laboratory Matrix QC

Matrix Spike % Recovery Comparison

Lab Report	Well	Analyte	MS %REC	MSD %REC	REC Range	RPD	RPD Range
1907511	MW-11	Sodium*	NC	NC	70-130	NC	20
1907511	MW-35	Ammonia as (N)	132	132	90-110	0.527	10
1907511	MW-36	Ammonia as (N)	134	129	90-110	3.58	10
1907511	MW-11	2-Butanone	132	73.0	74-200	57.5	35

* Recovery was not calculated as the analyte level in the sample was greater than 4 times the spike amount

NA - QC was not performed on an EFRI sample.

Method Blank Detections

All Method Blanks for the quarter were non-detect.

Laboratory Control Sample

All Laboratory Control Samples were within acceptance limits for the quarter.

Laboratory Duplicate % Recovery Comparison

Lab Report	Well	Analyte	Sample Result (mg/L)	Lab Duplicate Result (mg/L)	RPD %	RPD Range %
1907511	MW-11	Total Dissolved Solids	2160	1890	13.4	5
484412	MW-40	Gross Alpha	5.24	7.21	31.6	0-20

G-9B: Accelerated Laboratory Matrix QC

Matrix Spike % Recovery Comparison

Lab Report	Well	Analyte	MS %REC	MSD %REC	REC Range	RPD %	RPD Range %
1908182 - August Accelerated	MW-26	Ammonia (as N)	142	135	90-110	5.36	10
1909661 - September Accelerated	MW-26	Ammonia (as N)	144	144	90-110	0.402	10
1909661 - September Accelerated	MW-26	Chloroform	98.6	84.2	85-124	3.03	35

* Recovery was not calculated as the analyte level in the sample was greater than 4 times the spike amount

Laboratory Duplicate % Recovery Comparison

All Laboratory Duplicates were within acceptance limits for the quarter.

Method Blank Detections

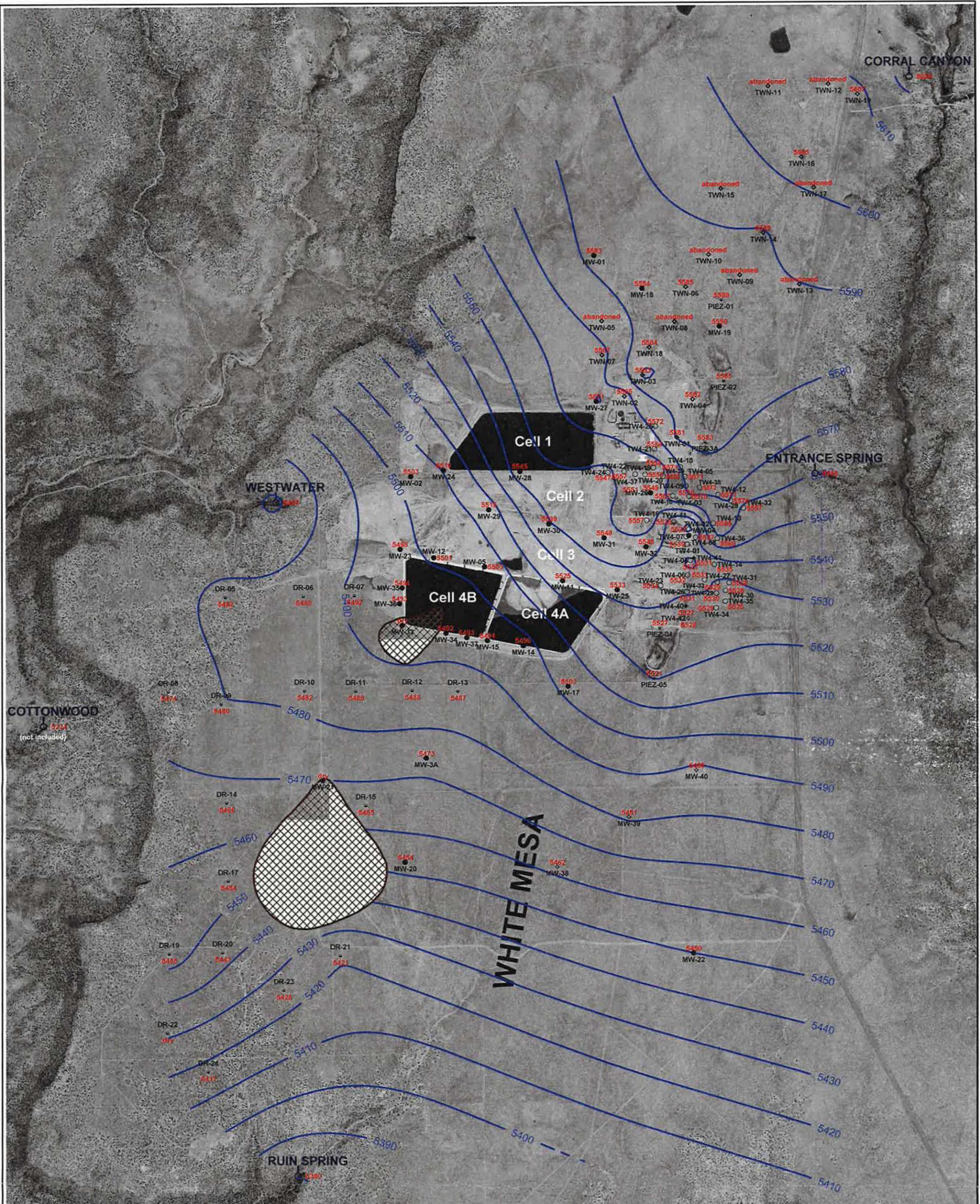
All Method Blanks for the quarter were non-detect.

Laboratory Control Sample

All Laboratory Control Samples were within acceptance limits for the quarter.

Tab H

Kriged Current Quarterly Groundwater Contour Map



EXPLANATION	
	estimated dry area
TW4-42 5528	temporary perched monitoring well installed April, 2019 showing elevation in feet amsl
MW-38 5462	perched monitoring well installed February, 2018 showing elevation in feet amsl
TW4-40 5527	temporary perched monitoring well installed February, 2018 showing elevation in feet amsl
MW-5 5503	perched monitoring well showing elevation in feet amsl
TW4-12 5571	temporary perched monitoring well showing elevation in feet amsl
TWN-7 5567	temporary perched nitrate monitoring well showing elevation in feet amsl
PIEZ-1 5589	perched piezometer showing elevation in feet amsl
RUIN SPRING 5380	seep or spring showing elevation in feet amsl

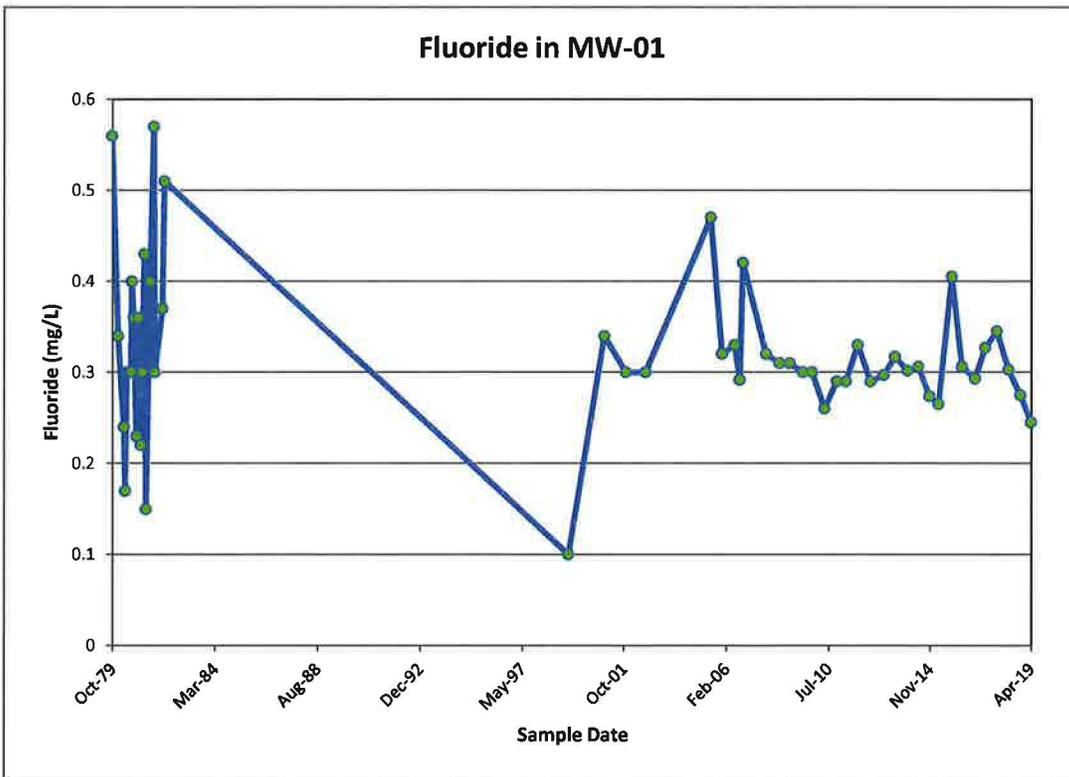
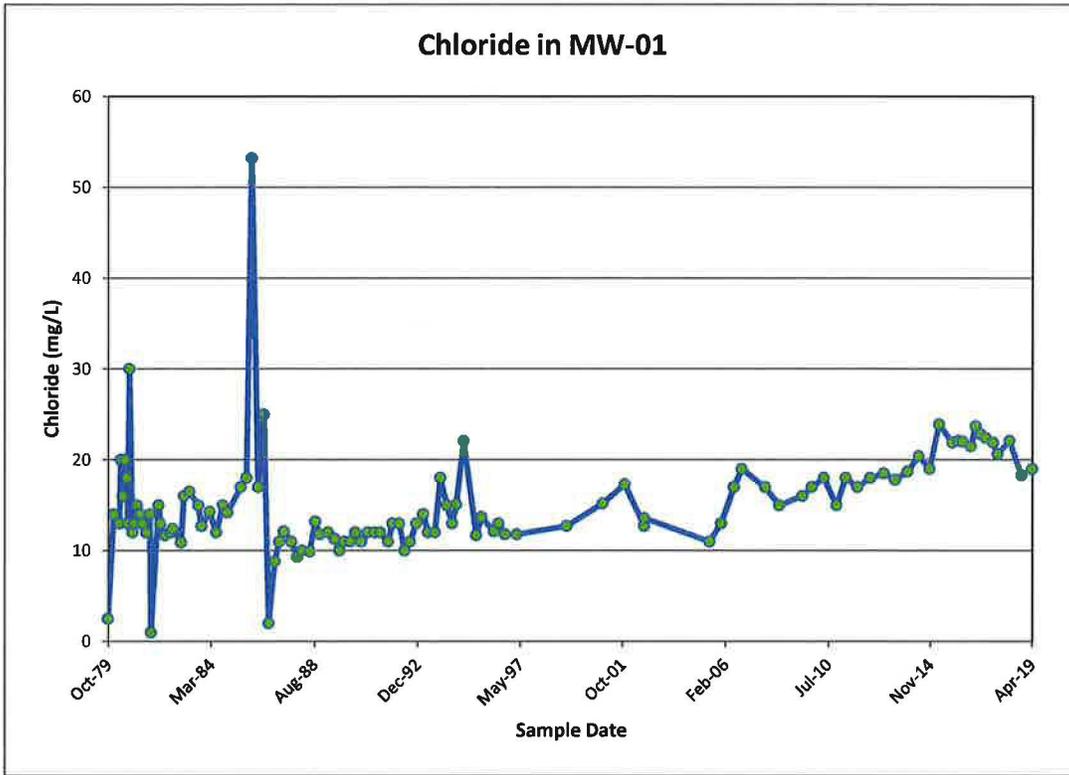
NOTES: MW-4, MW-26, TW4-1, TW4-2, TW4-4, TW4-11, TW4-19, TW4-20, TW4-21, TW4-37, TW4-39, TW4-40 and TW4-41 are chloroform pumping wells; TW4-22, TW4-24, TW4-25 and TWN-2 are nitrate pumping wells; TW4-11 water level is below the base of the Burro Canyon Formation

	HYDRO GEO CHEM, INC.		KRIGED 3rd QUARTER, 2019 WATER LEVELS WHITE MESA SITE	
	APPROVED	DATE	REFERENCE	FIGURE
		H:/718000/nov19/WL/Uwl0919.srf	H-1	

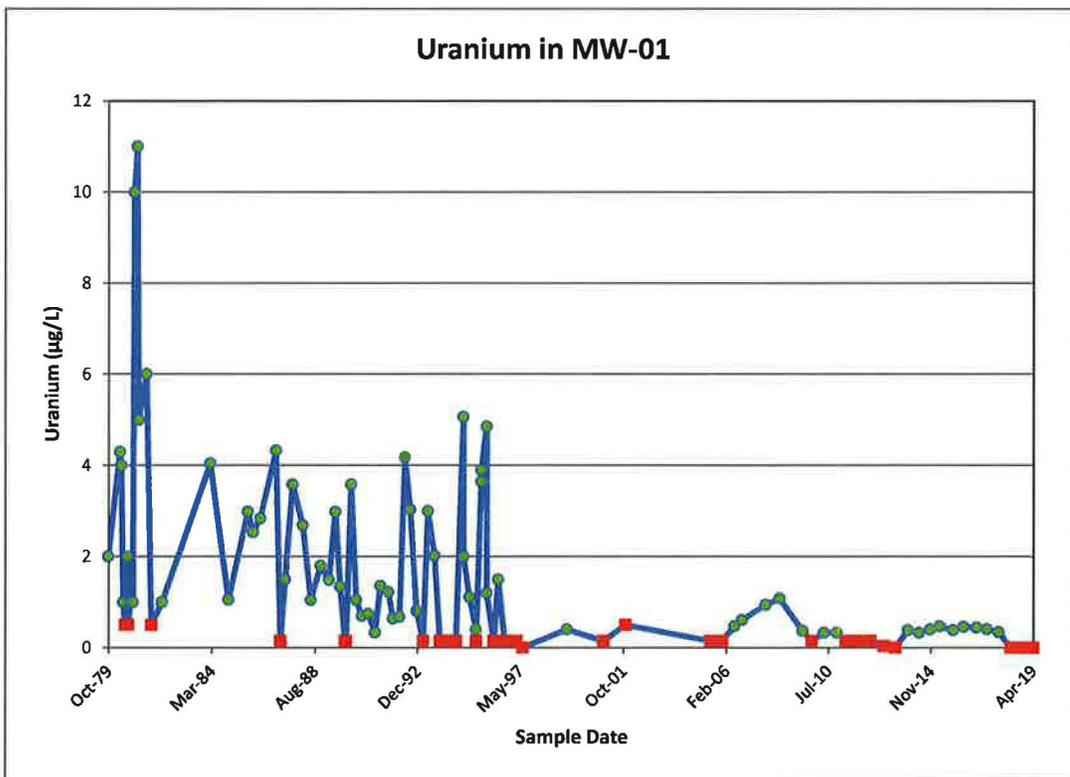
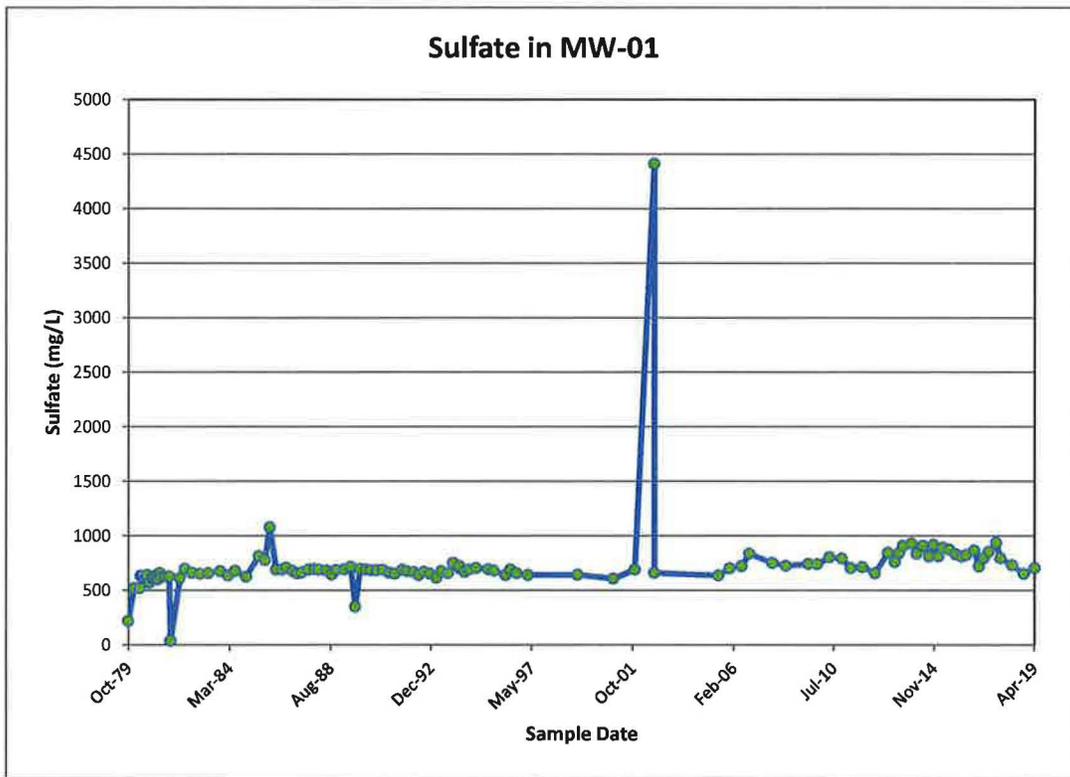
Tab I

Groundwater Time Concentration Plots

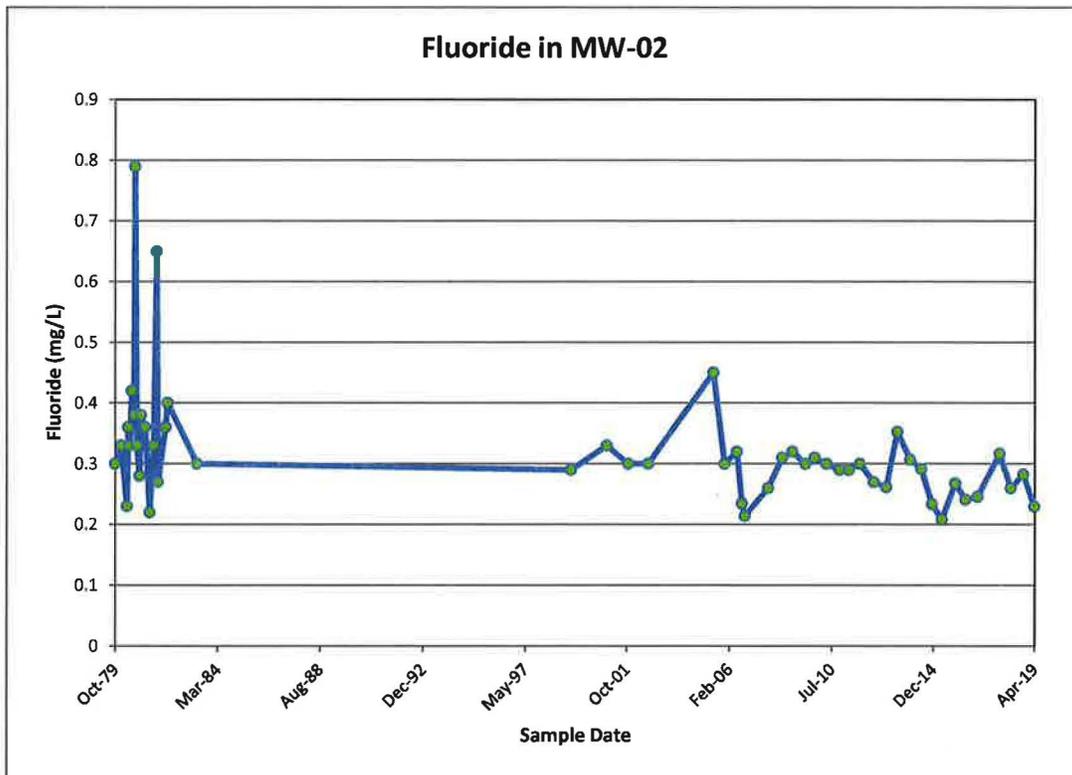
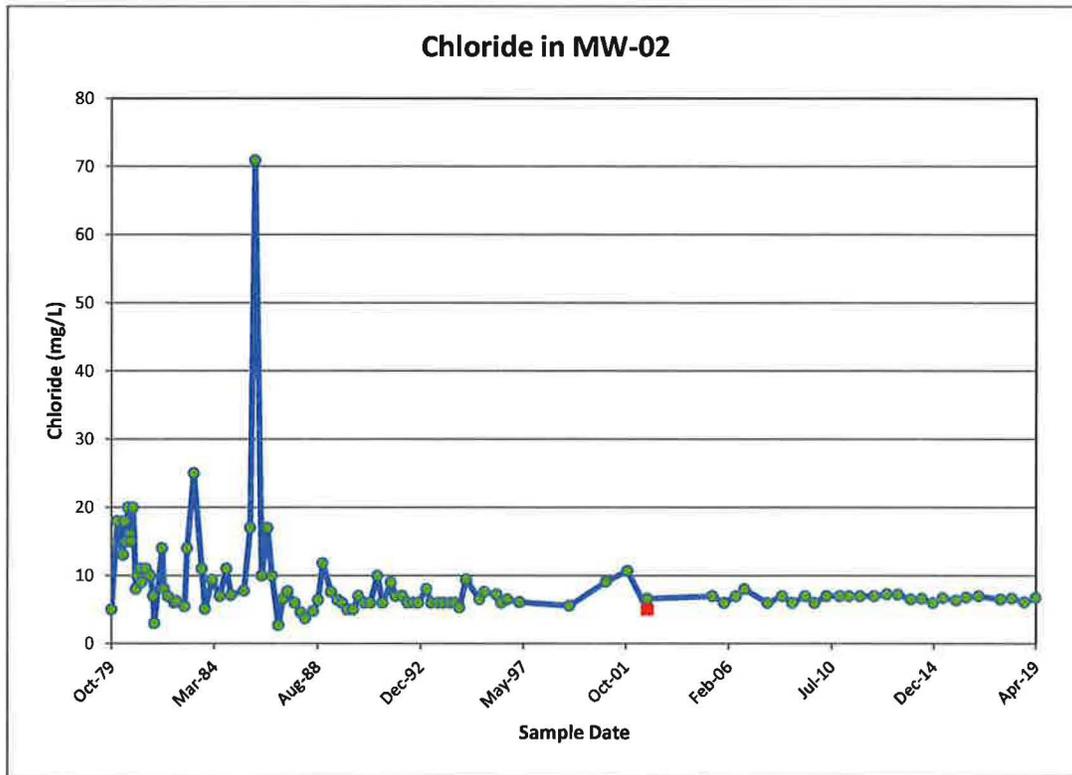
Time concentration plots for MW-01



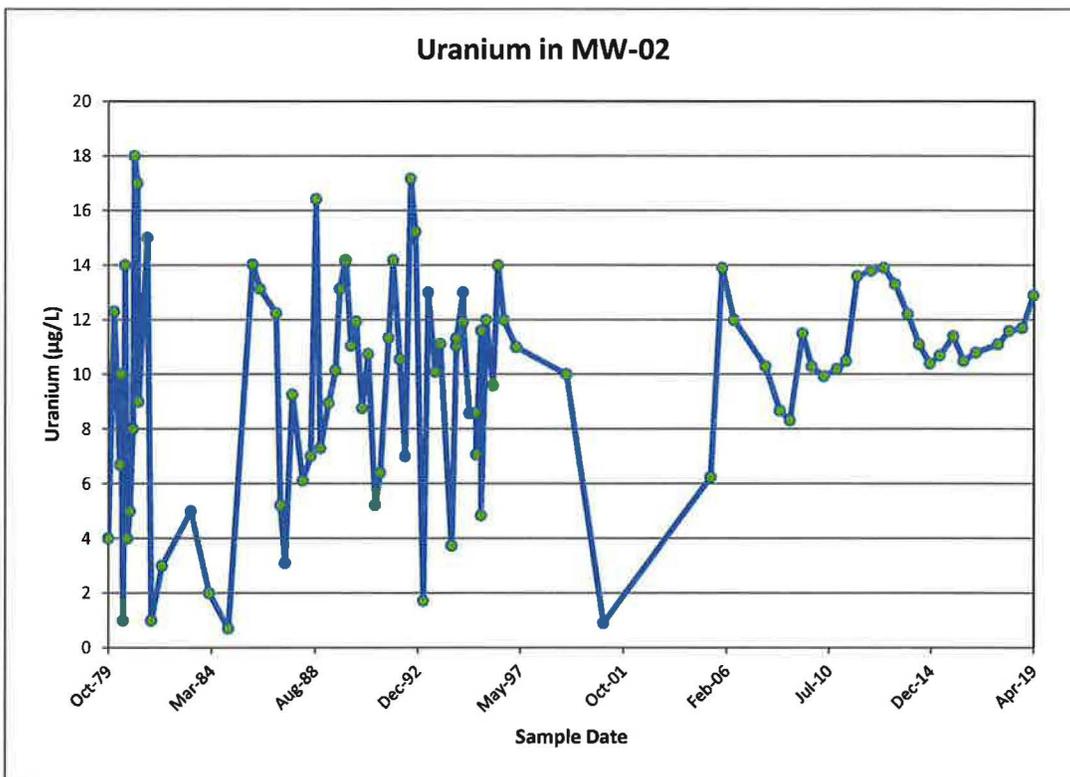
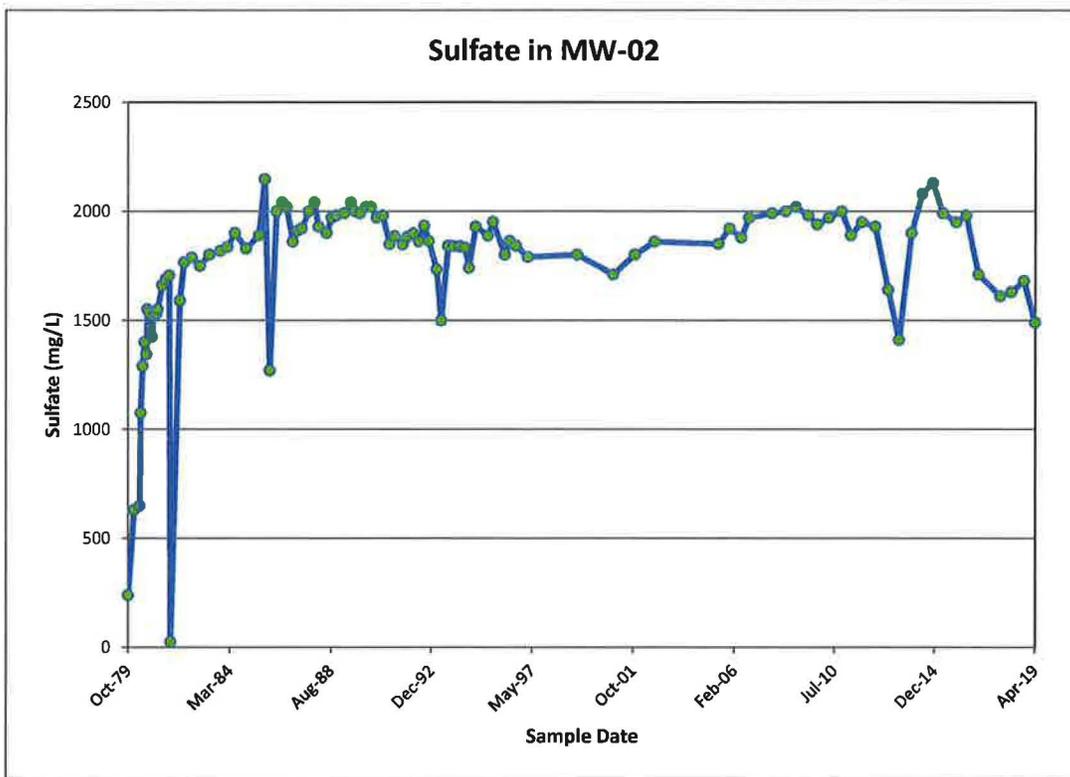
Time concentration plots for MW-01



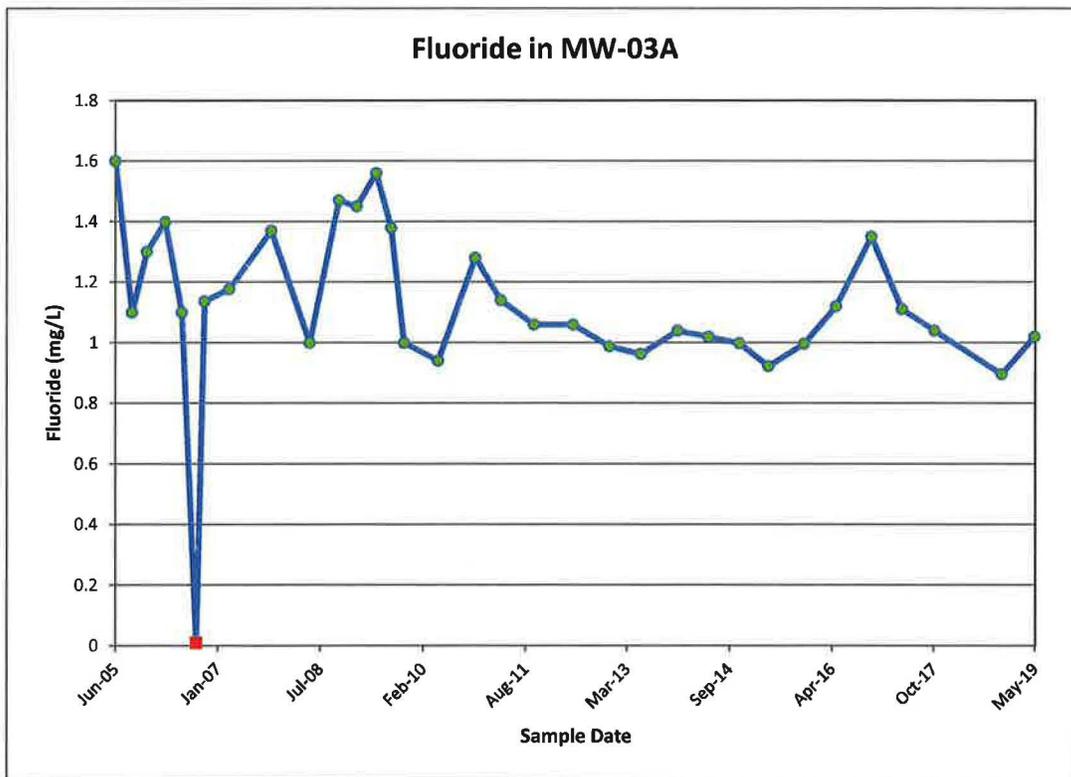
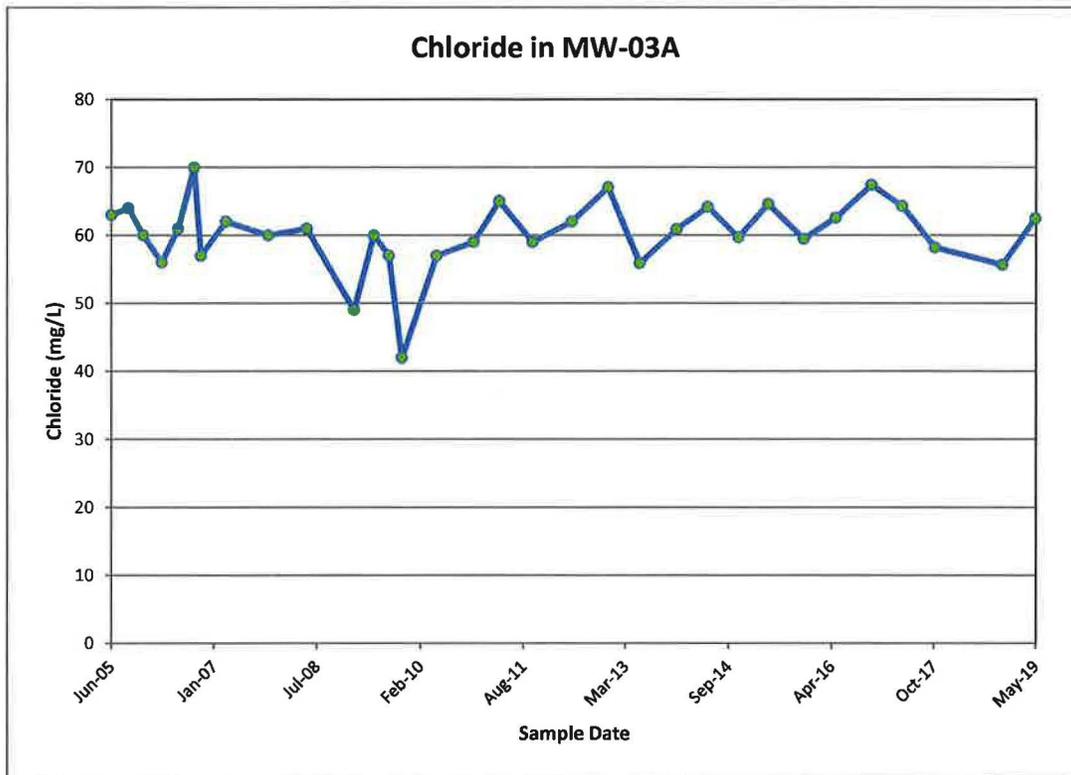
Time concentration plots for MW-02



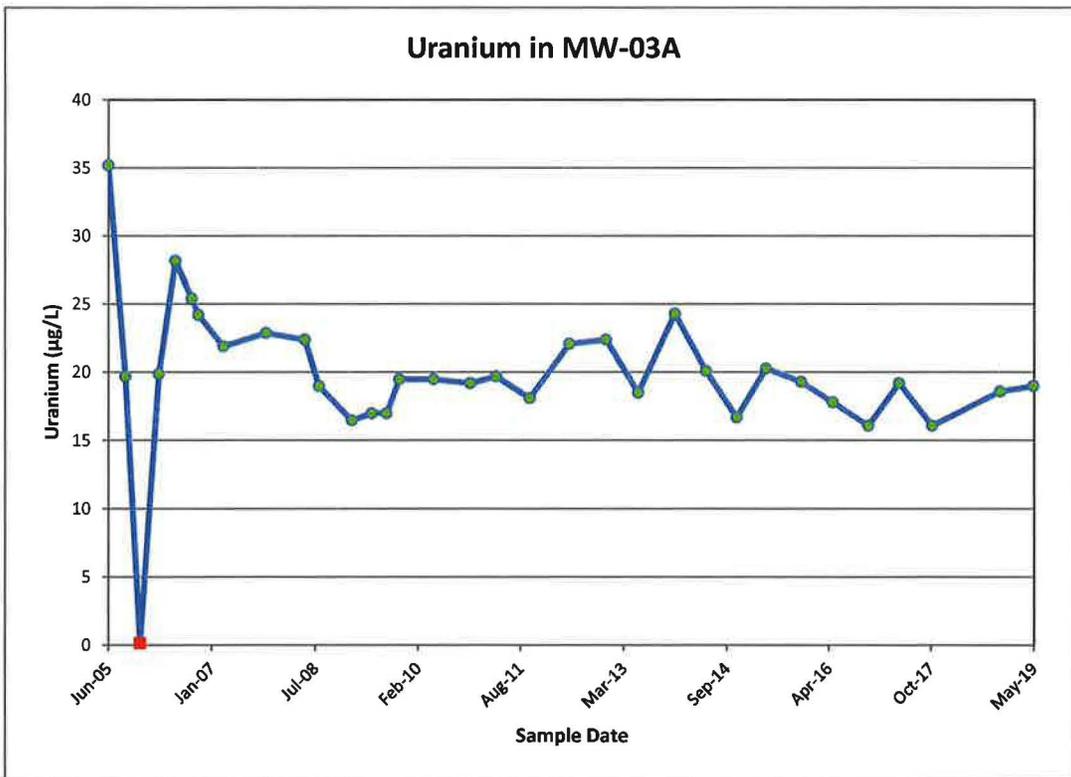
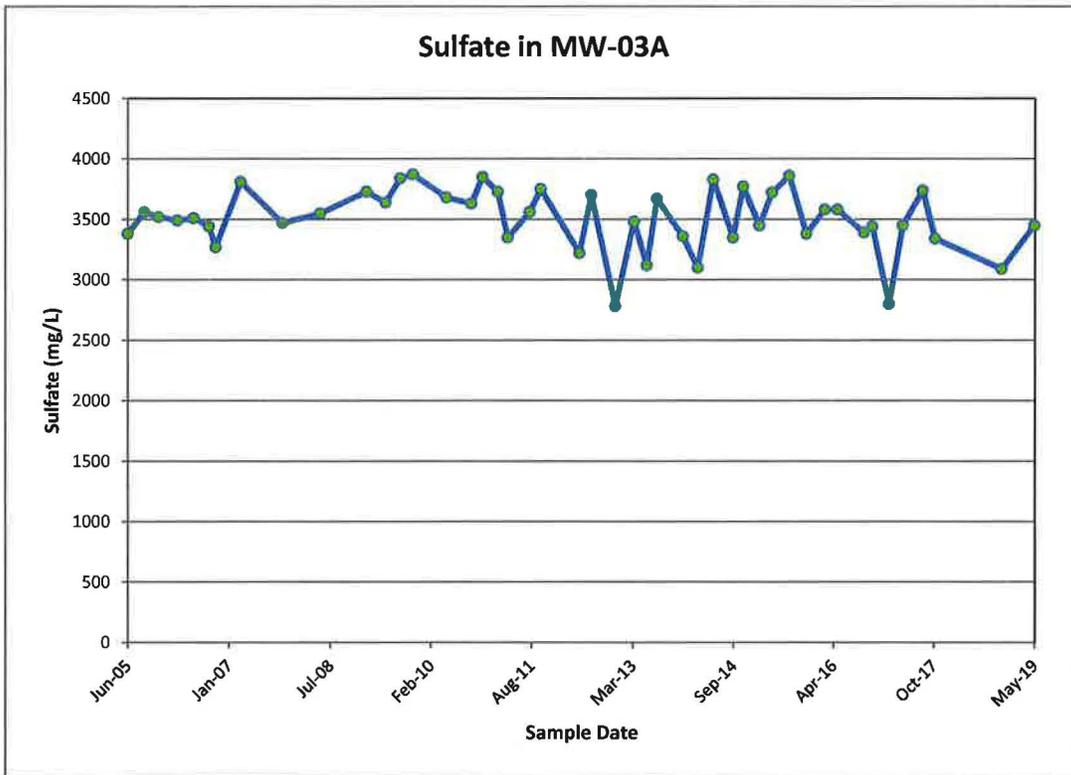
Time concentration plots for MW-02



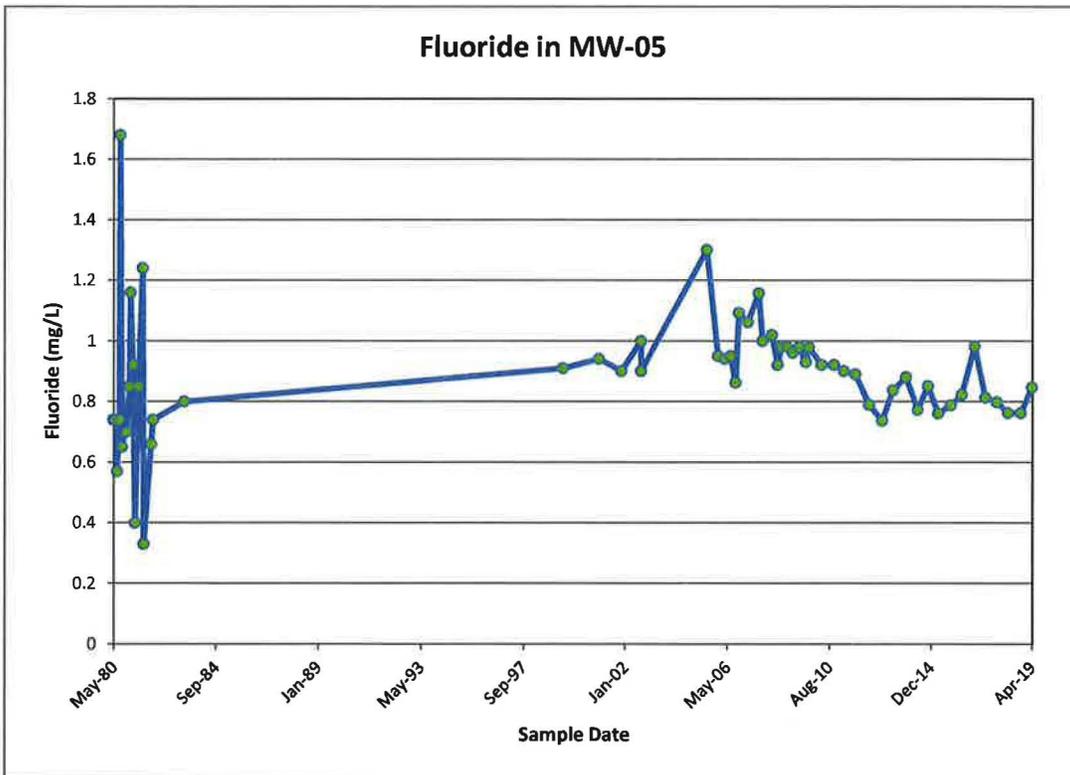
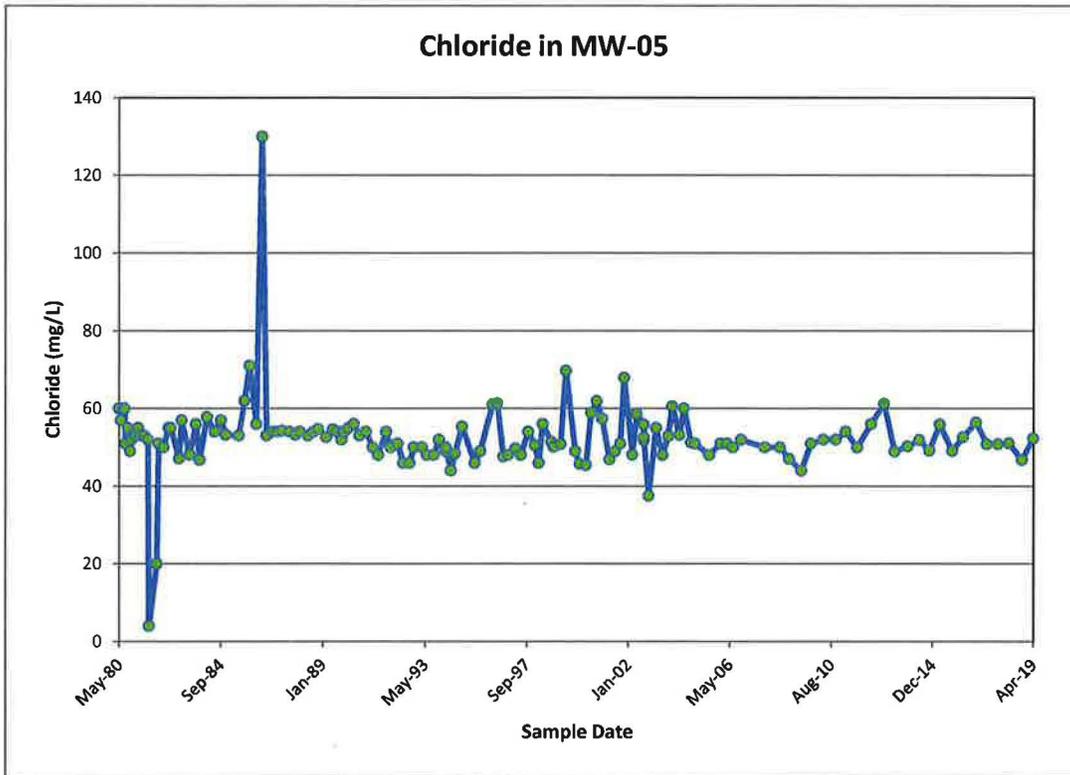
Time concentration plots for MW-03A



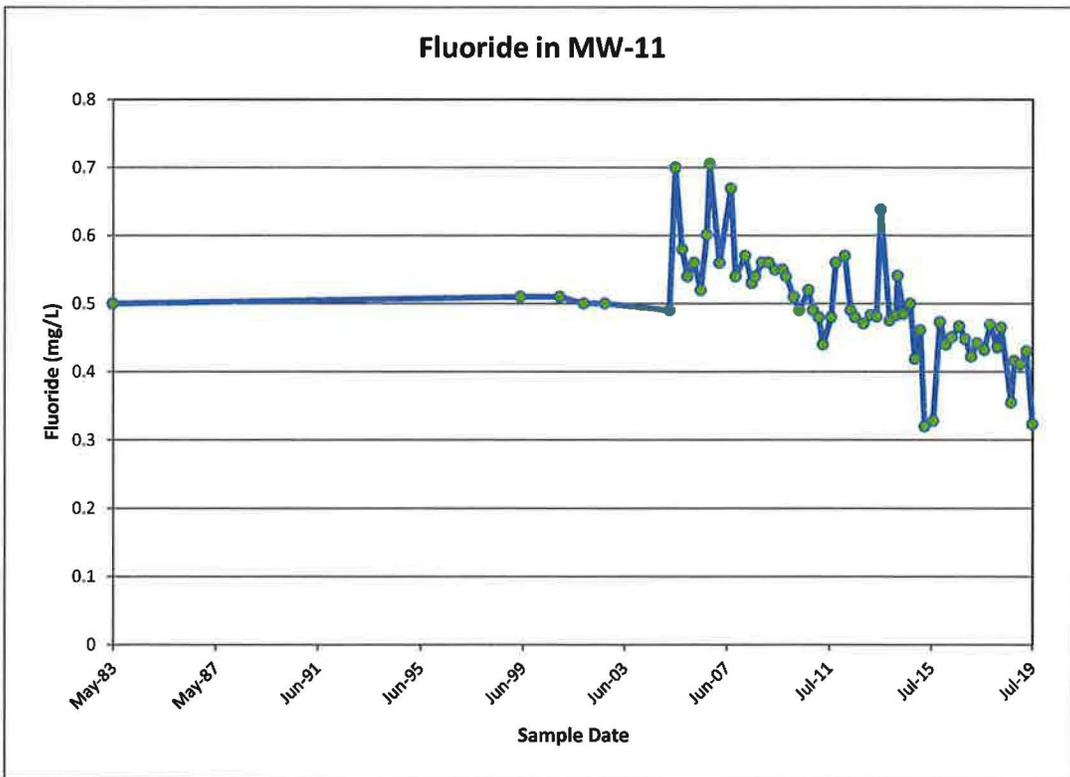
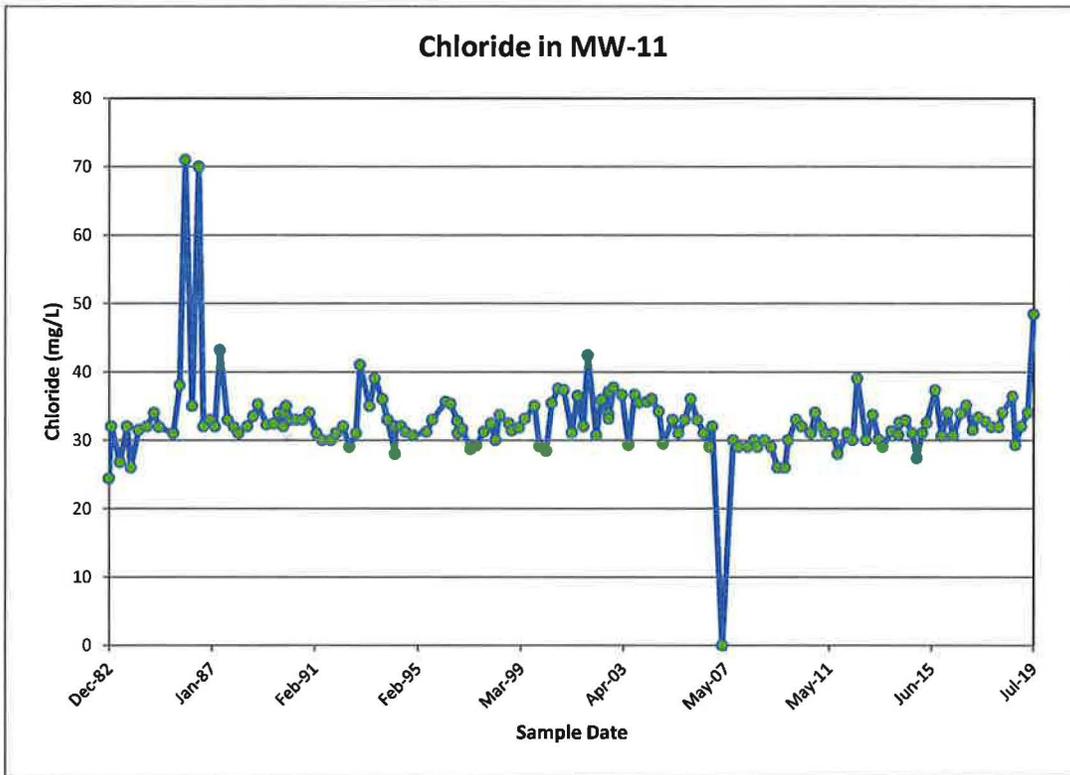
Time concentration plots for MW-03A



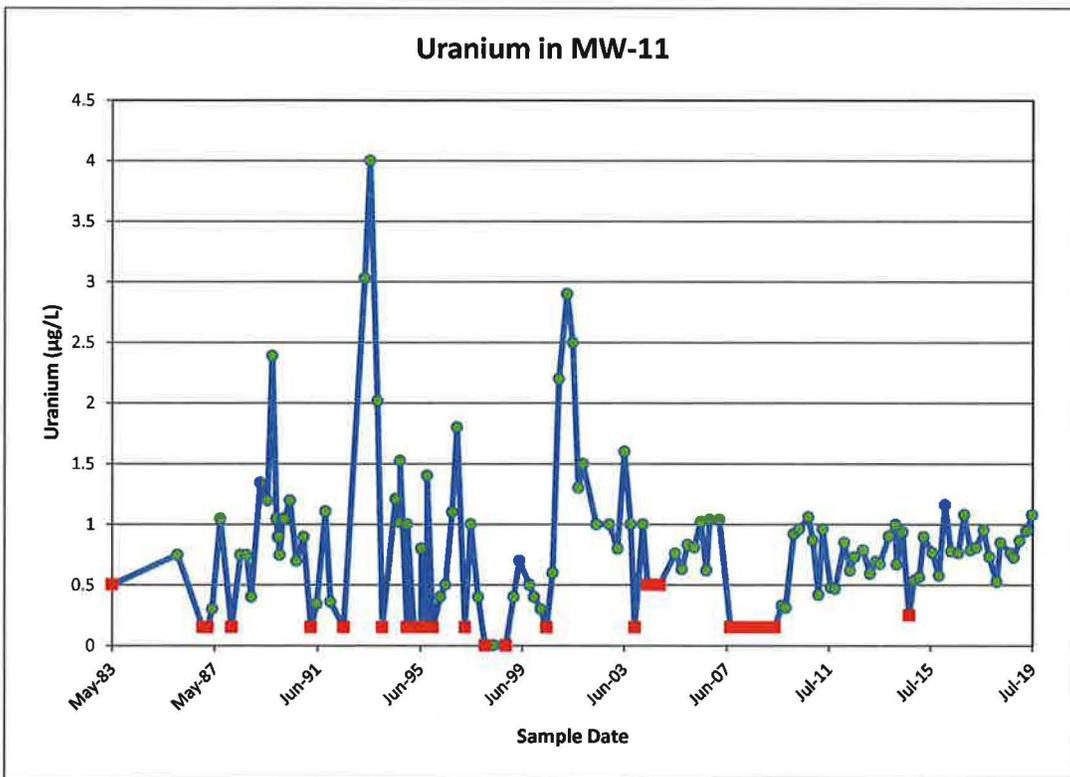
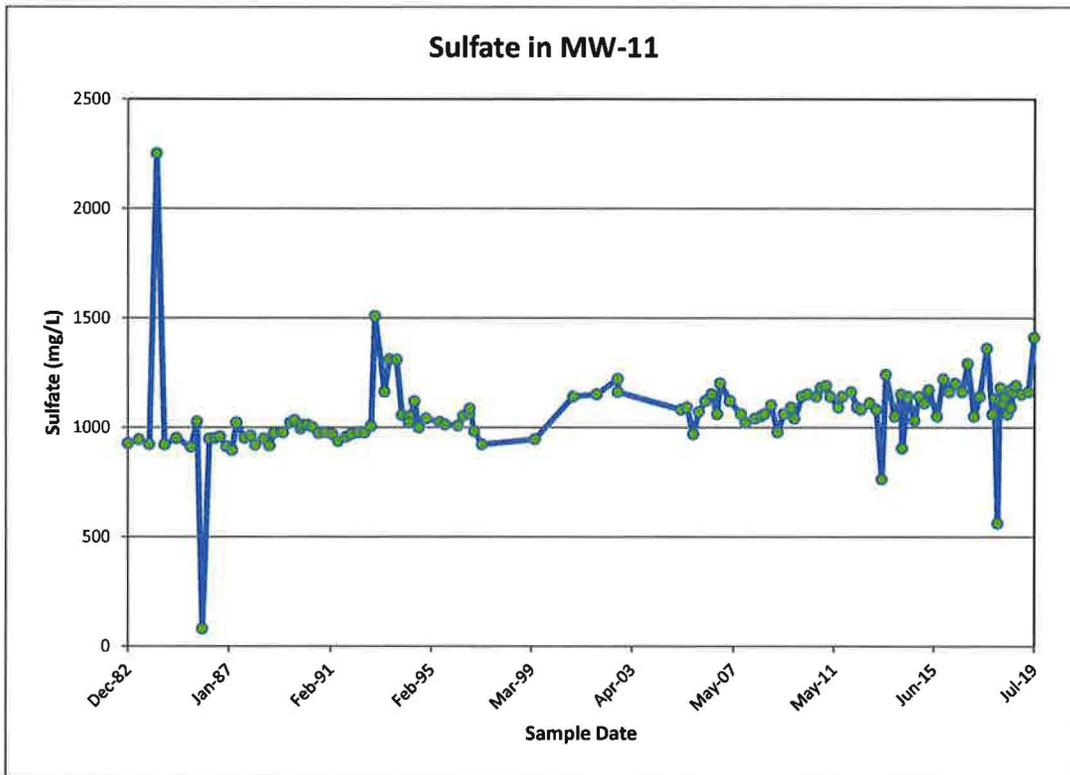
Time concentration plots for MW-05



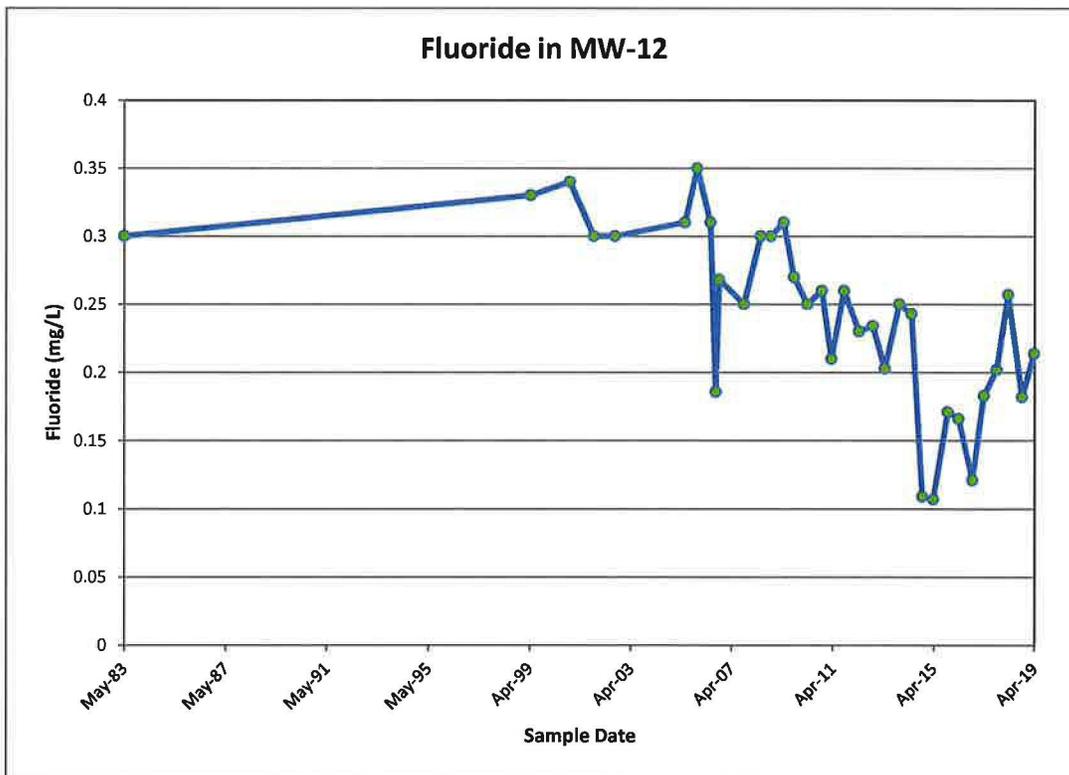
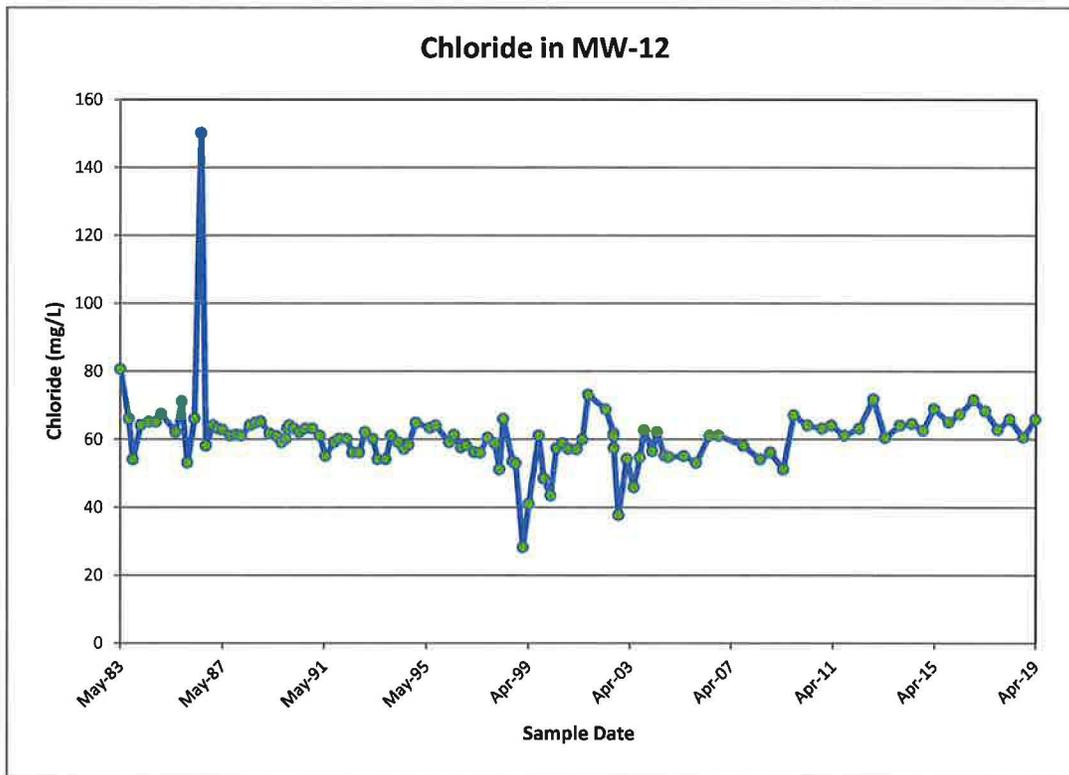
Time concentration plots for MW-11



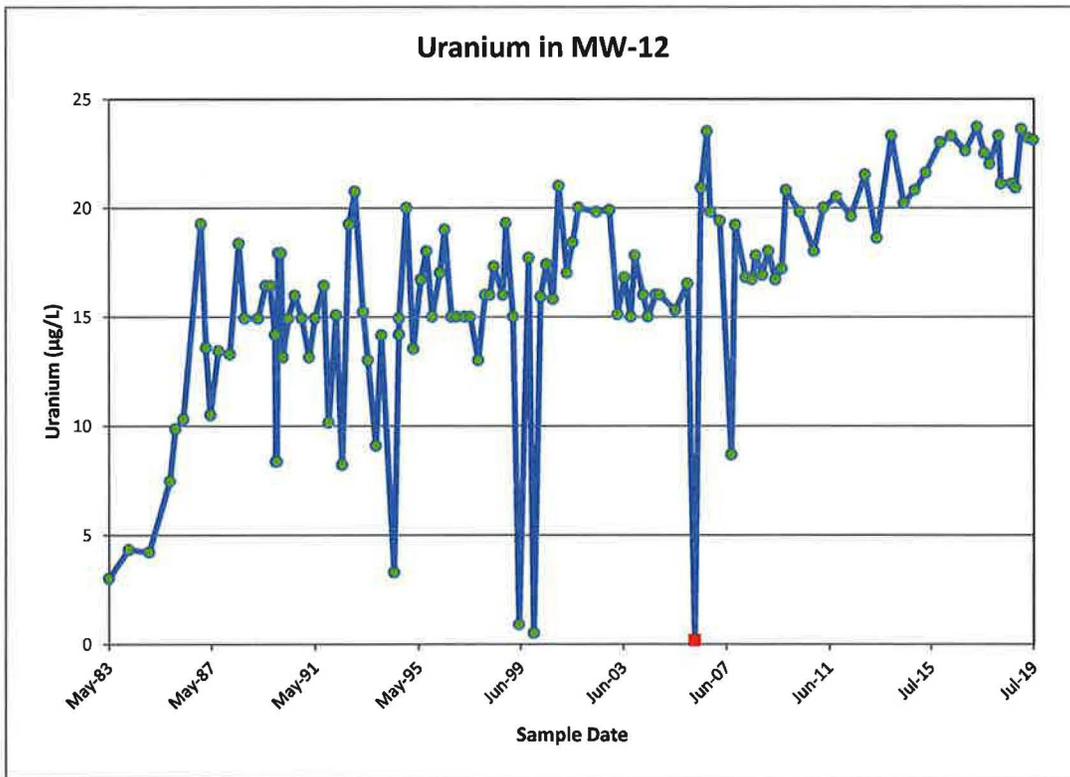
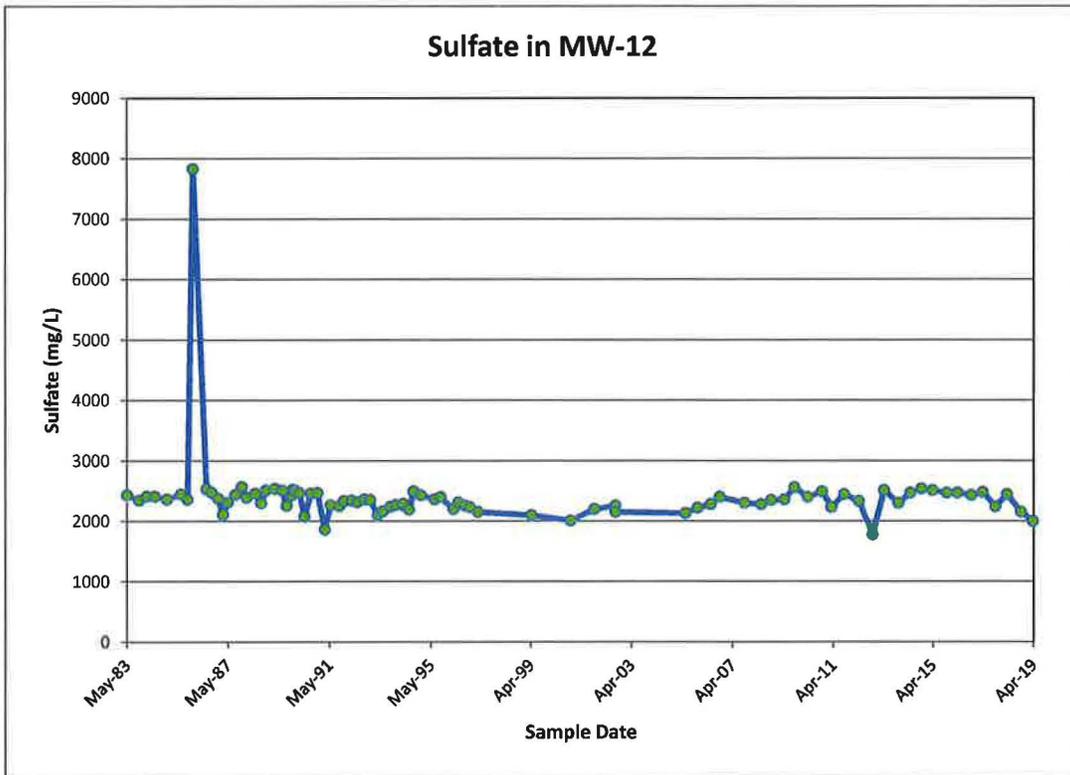
Time concentration plots for MW-11



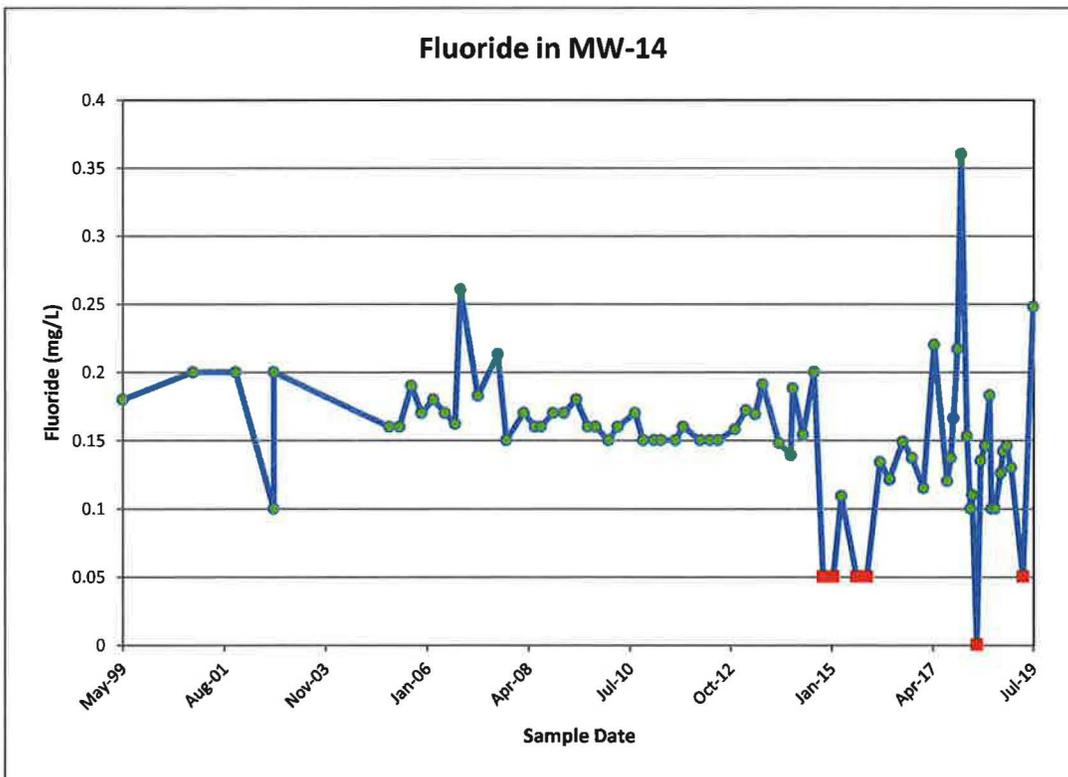
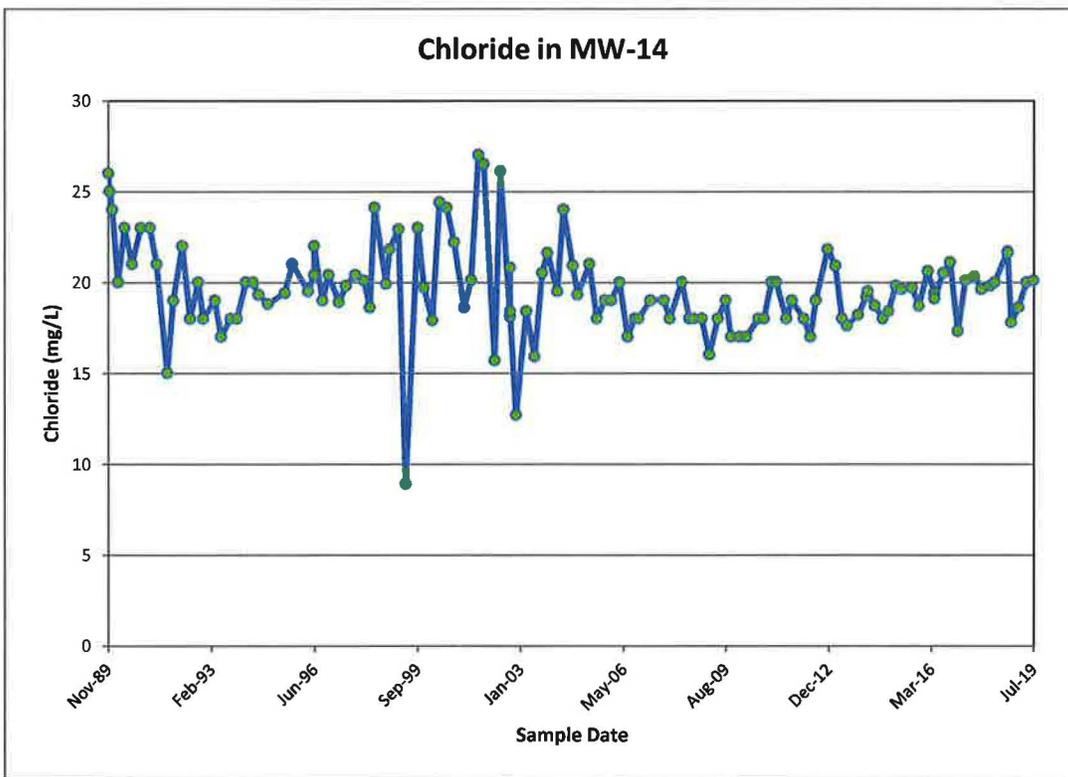
Time concentration plots for MW-12



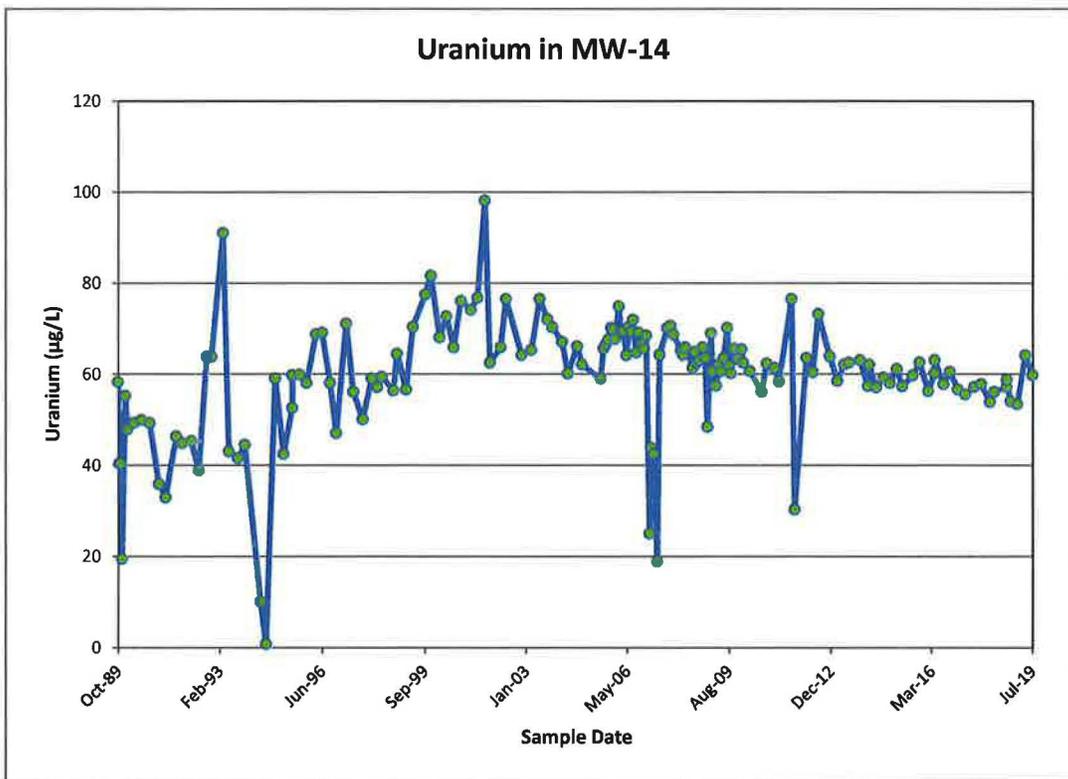
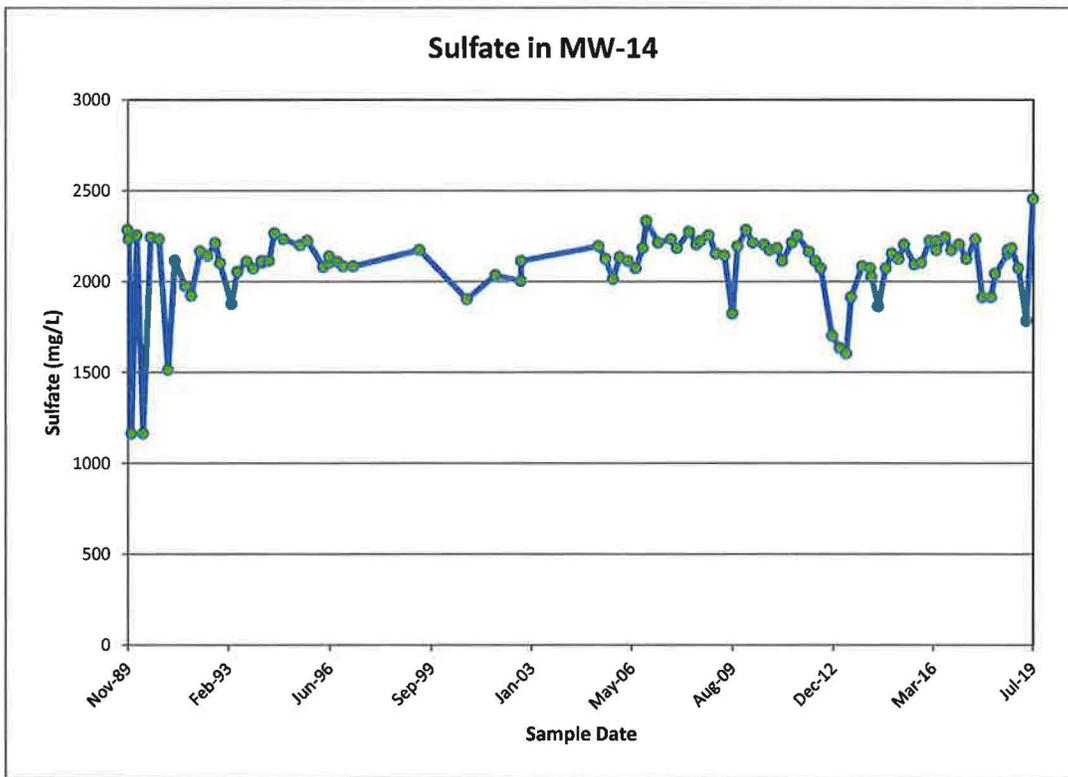
Time concentration plots for MW-12



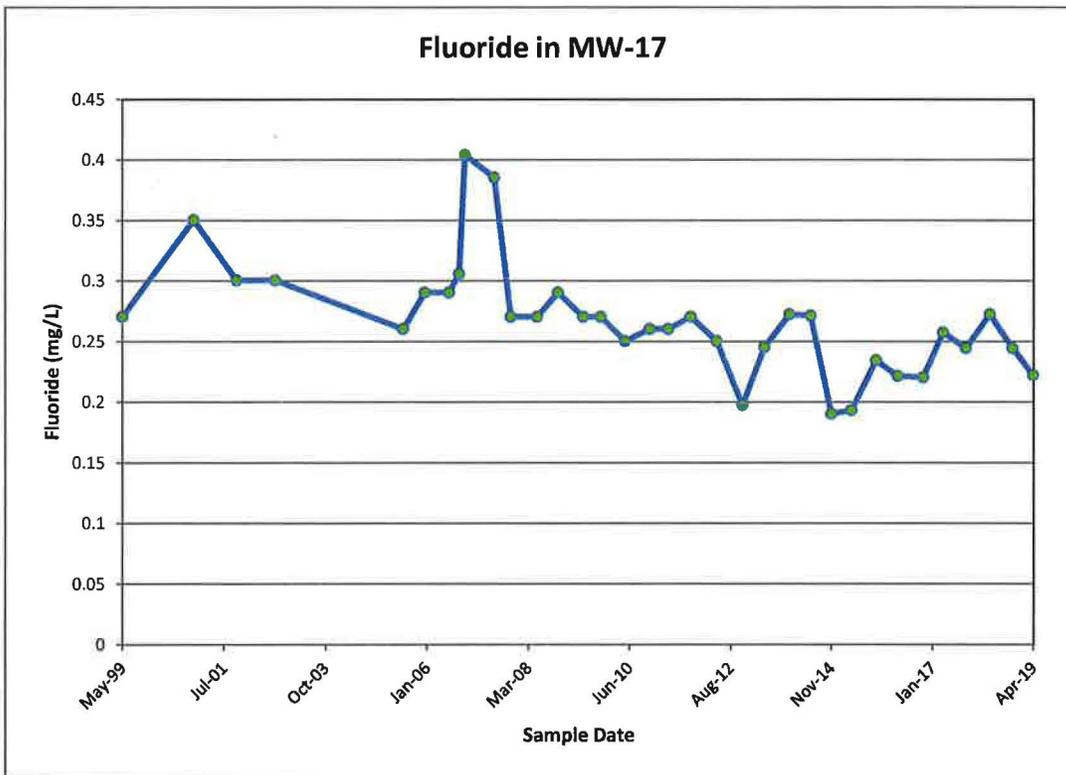
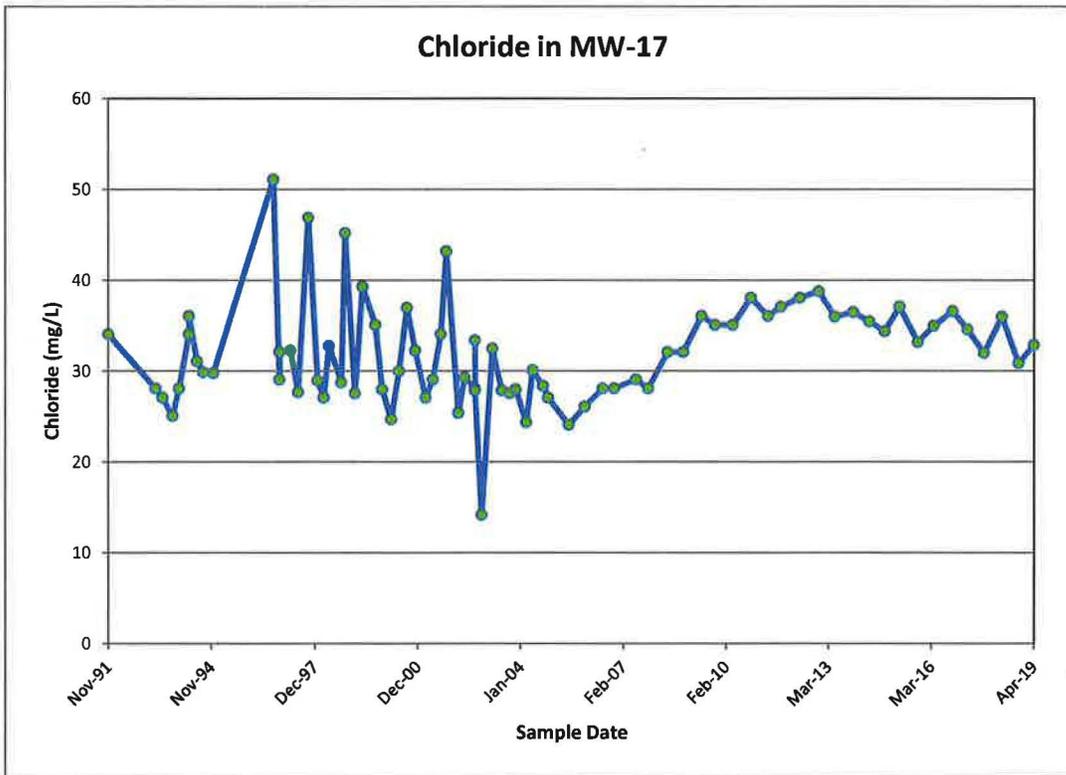
Time concentration plots for MW-14



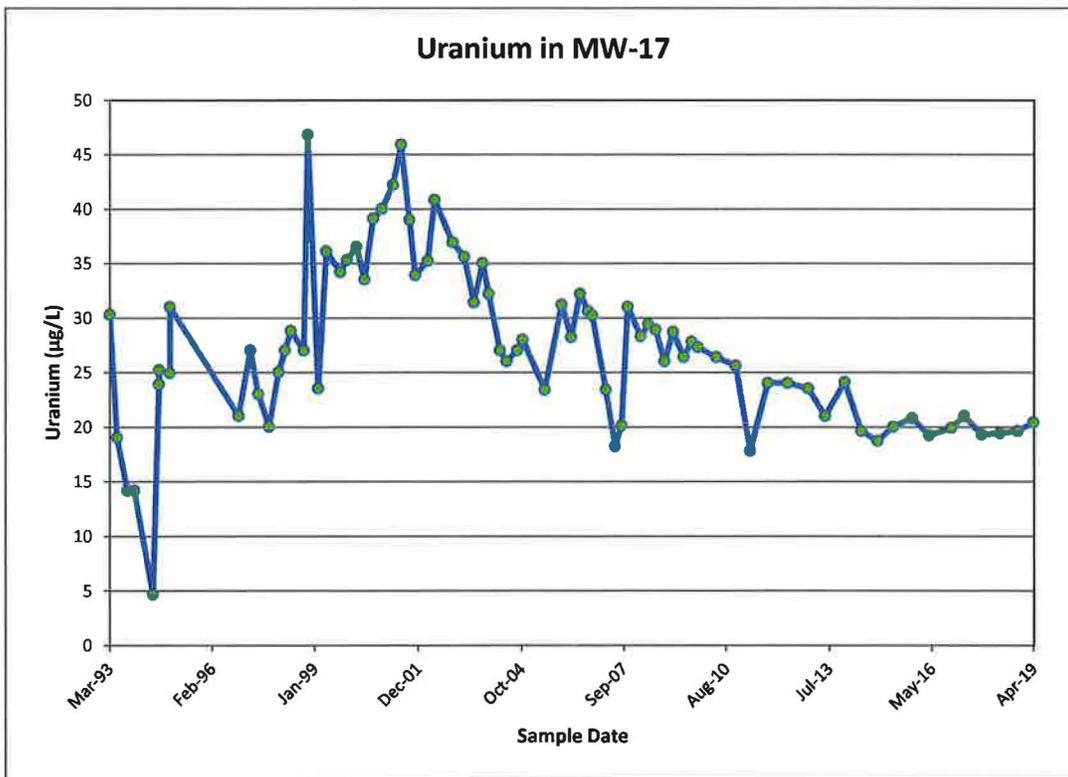
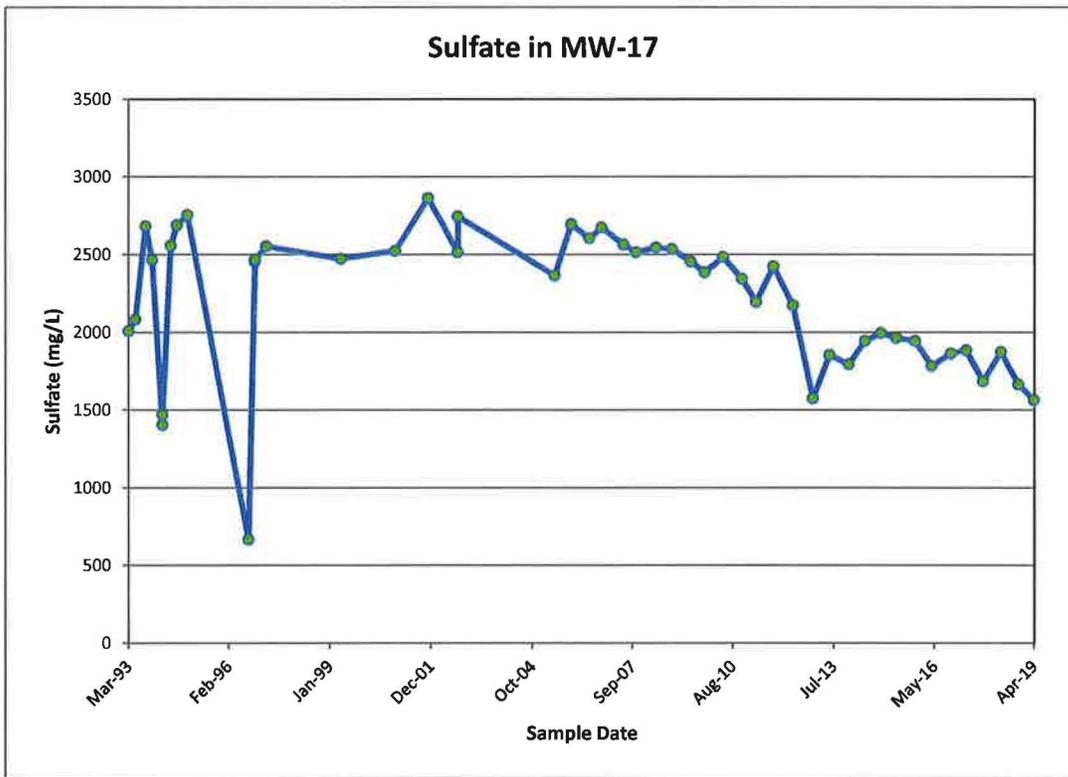
Time concentration plots for MW-14



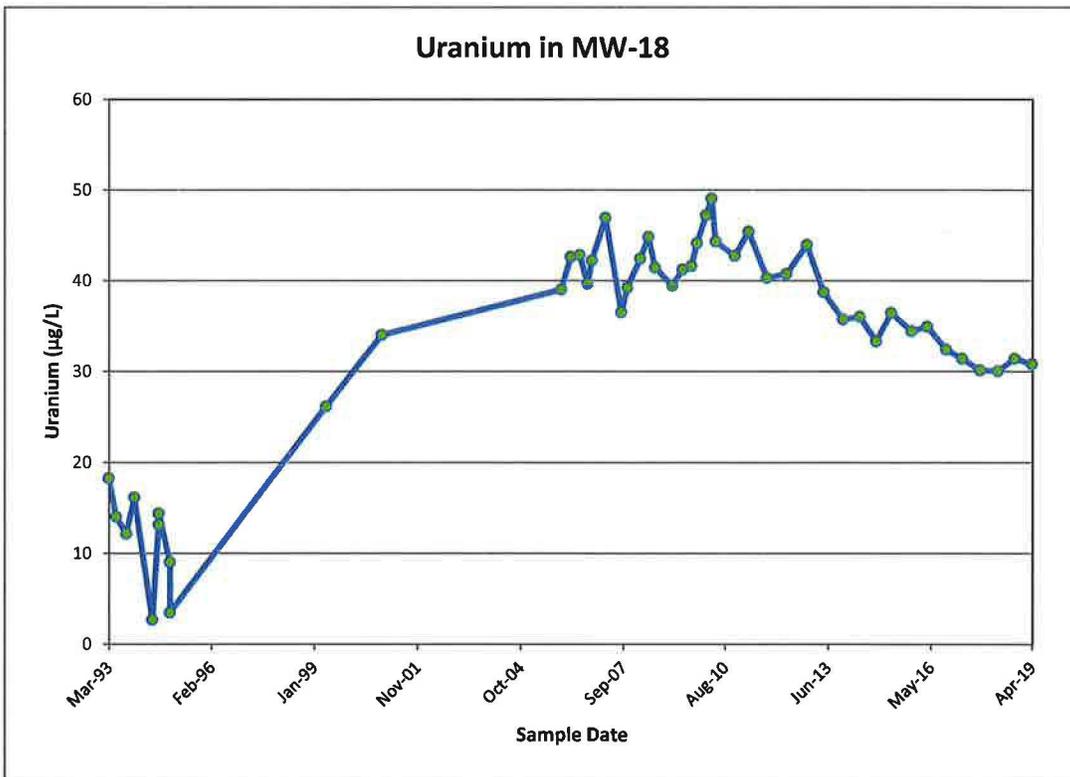
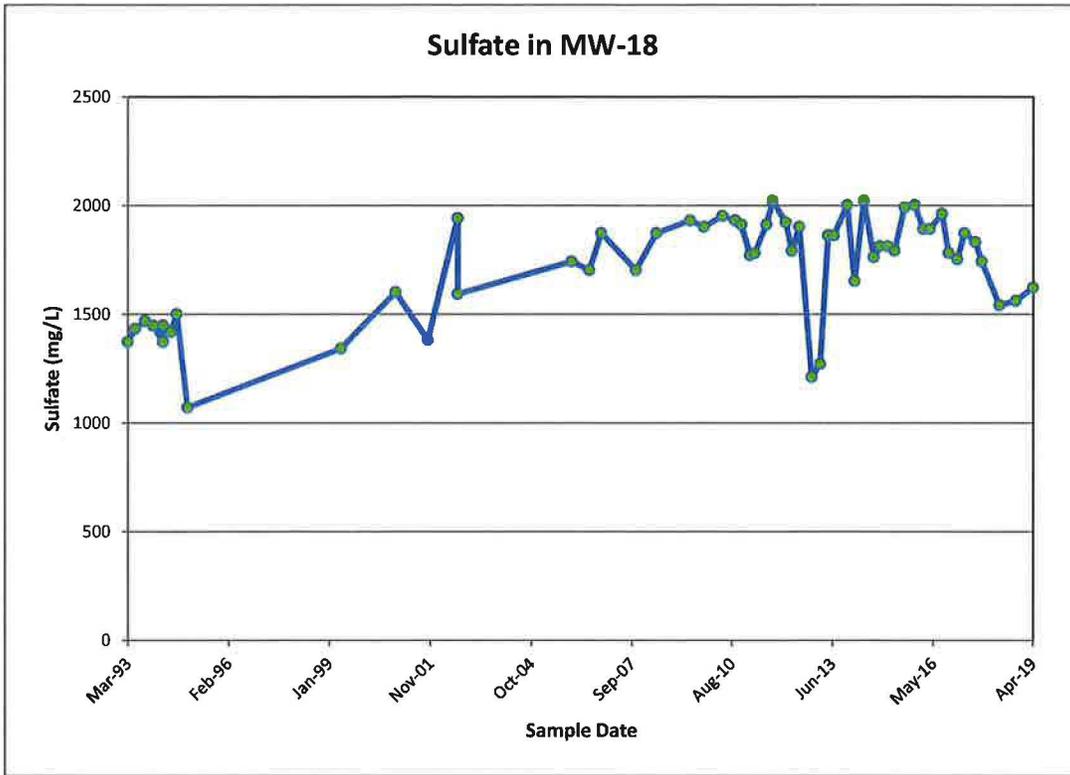
Time concentration plots for MW-17



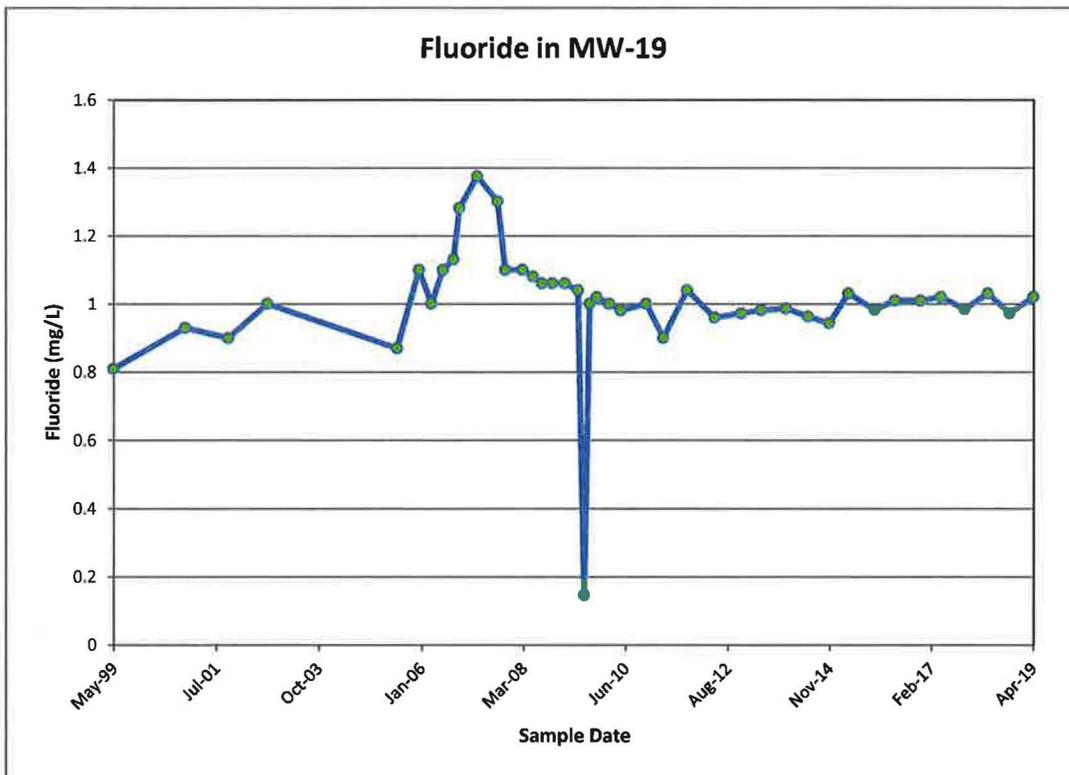
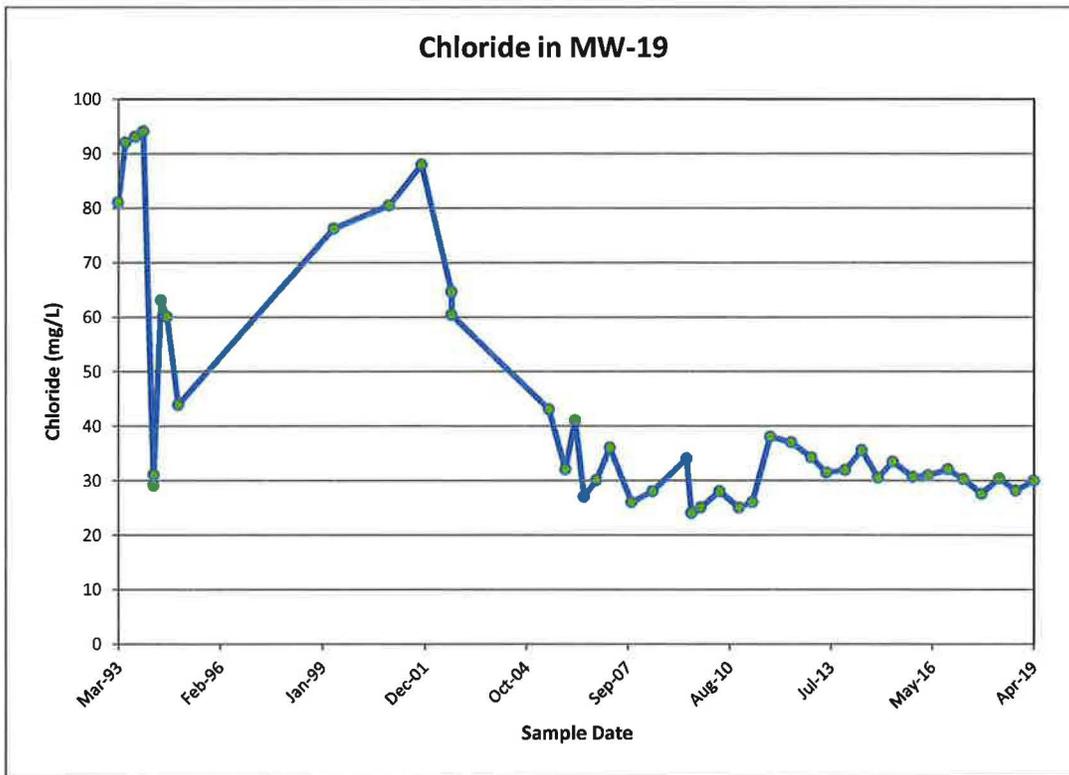
Time concentration plots for MW-17



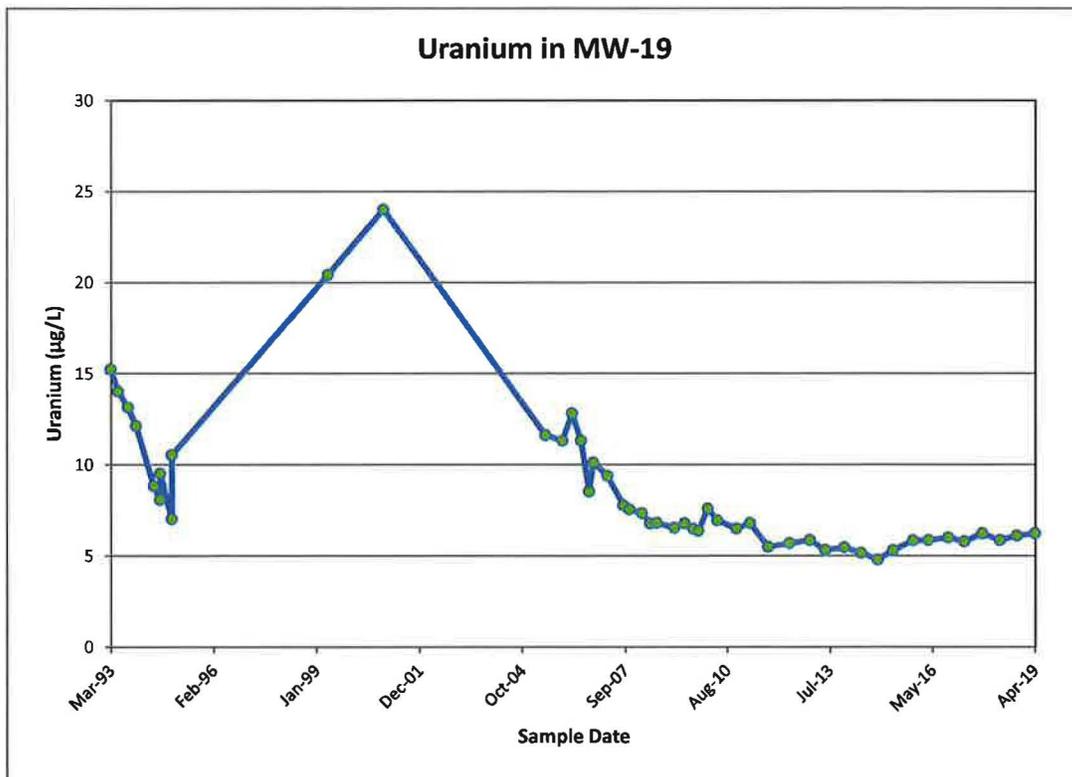
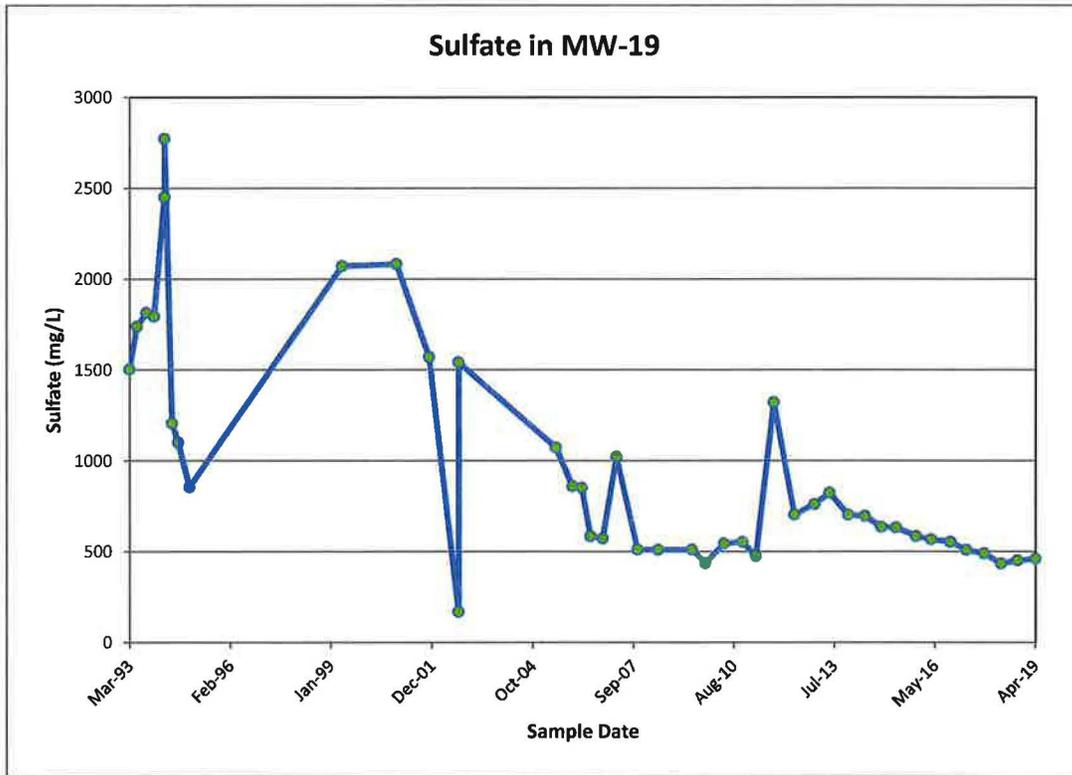
Time concentration plots for MW-18



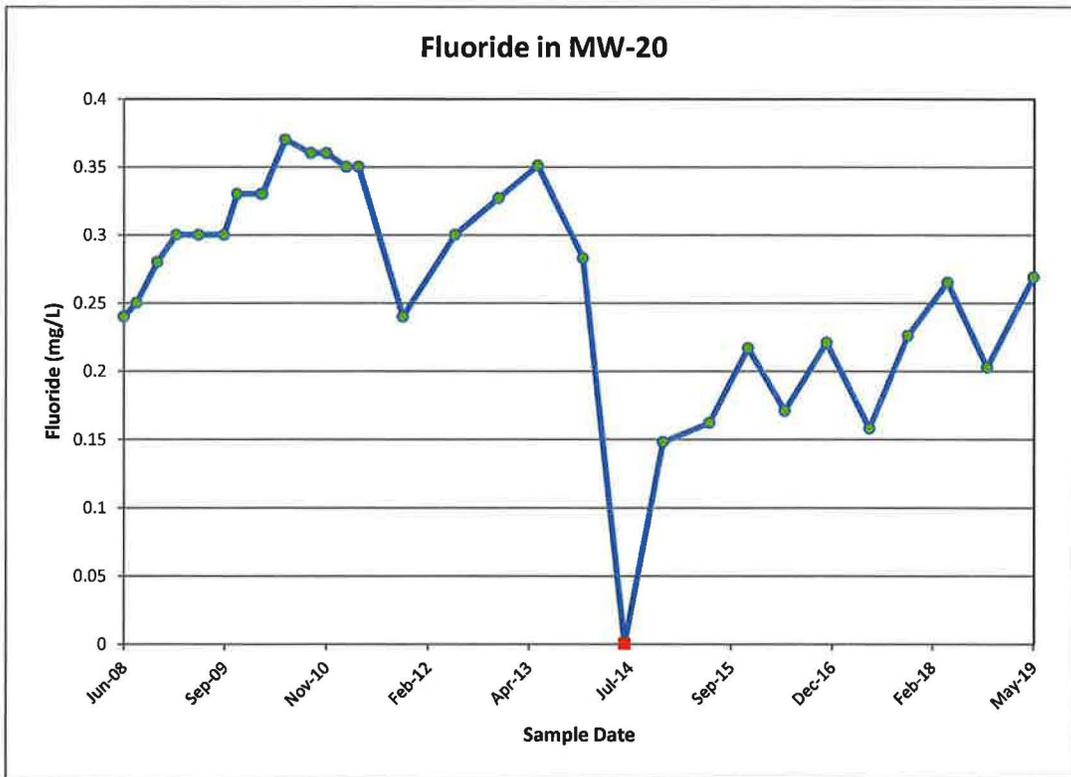
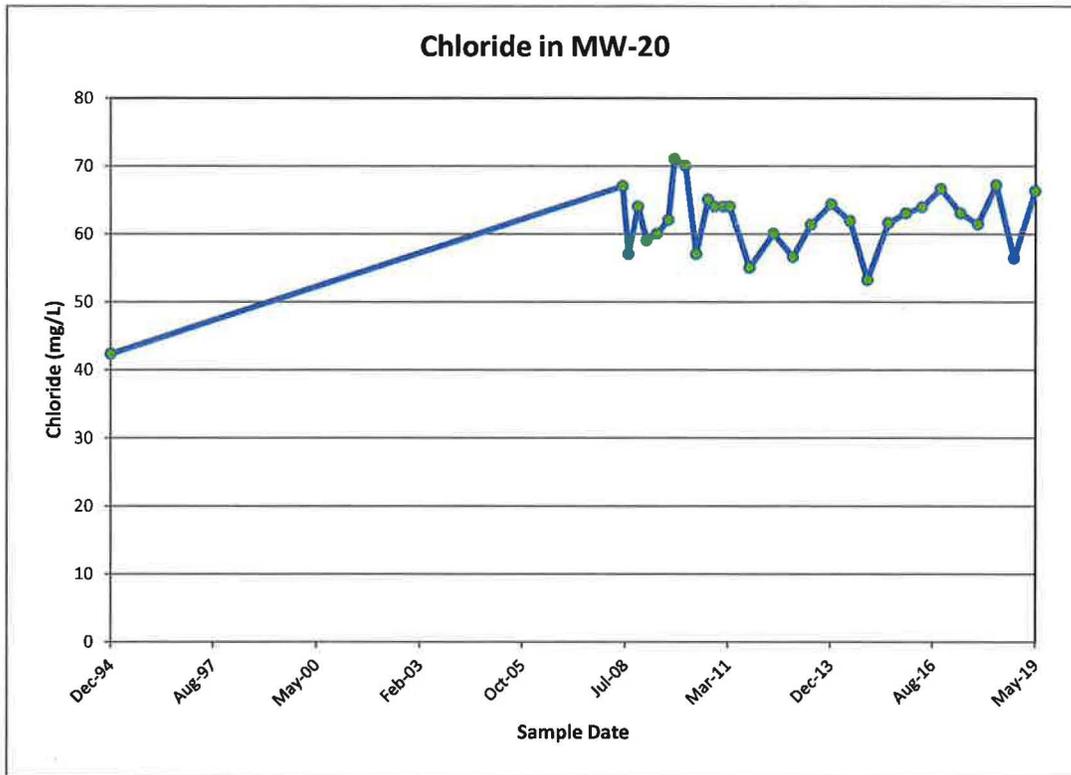
Time concentration plots for MW-19



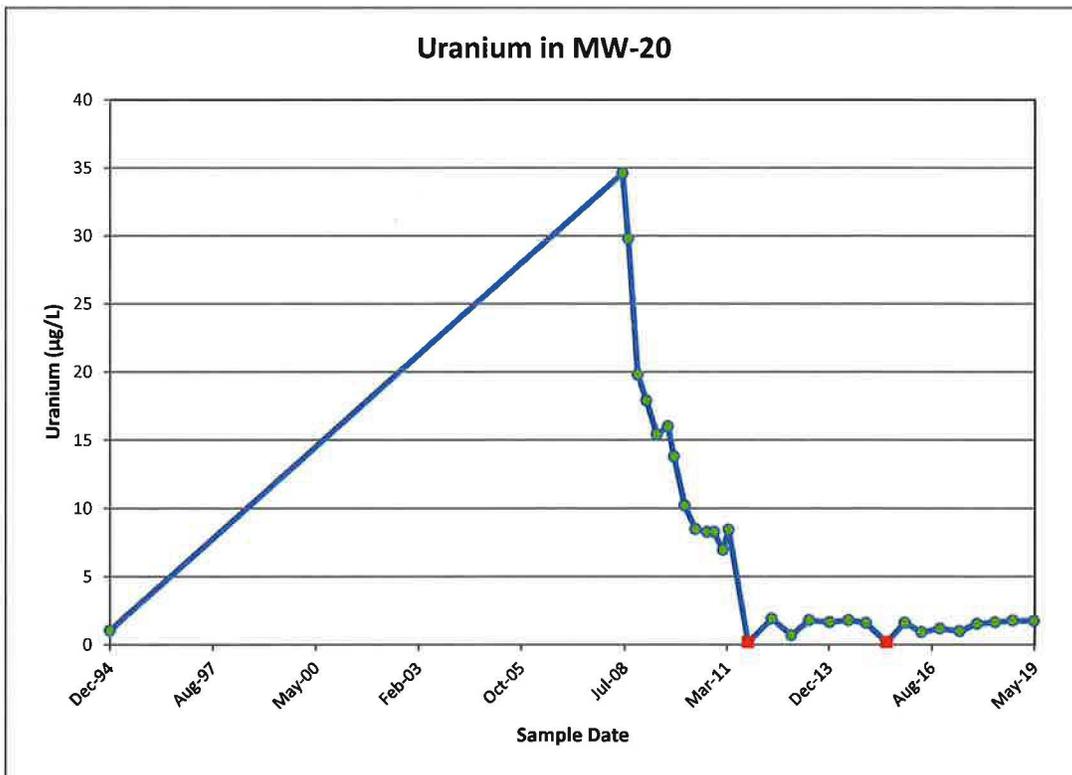
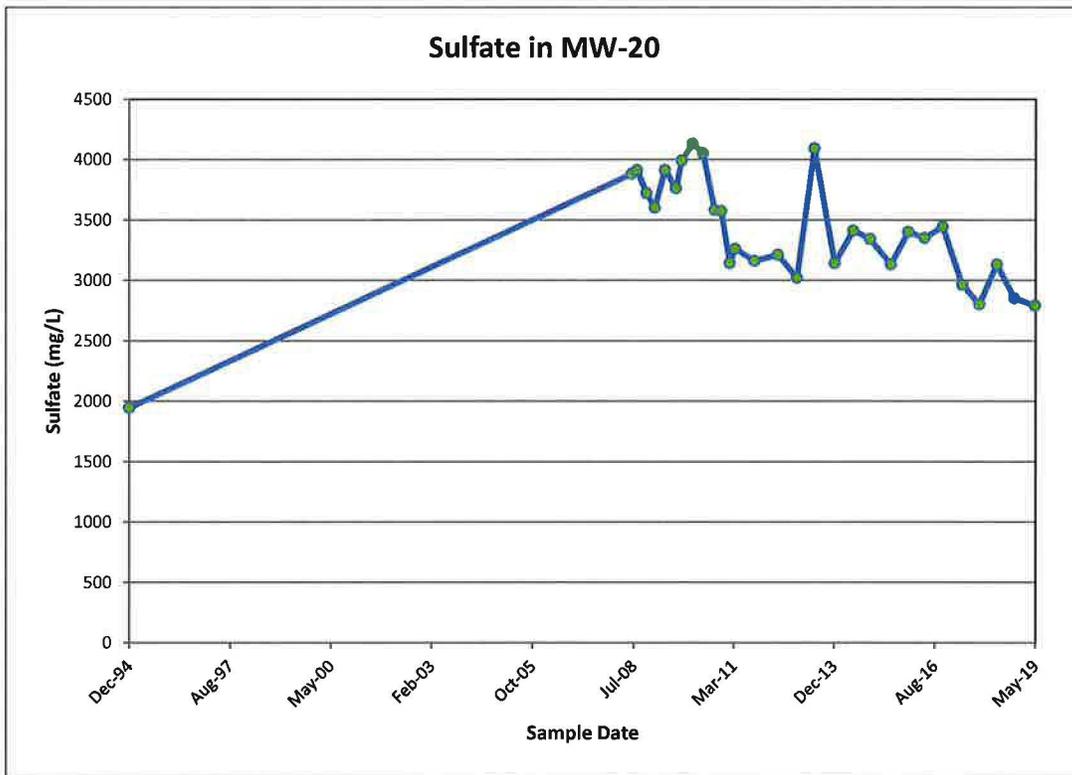
Time concentration plots for MW-19



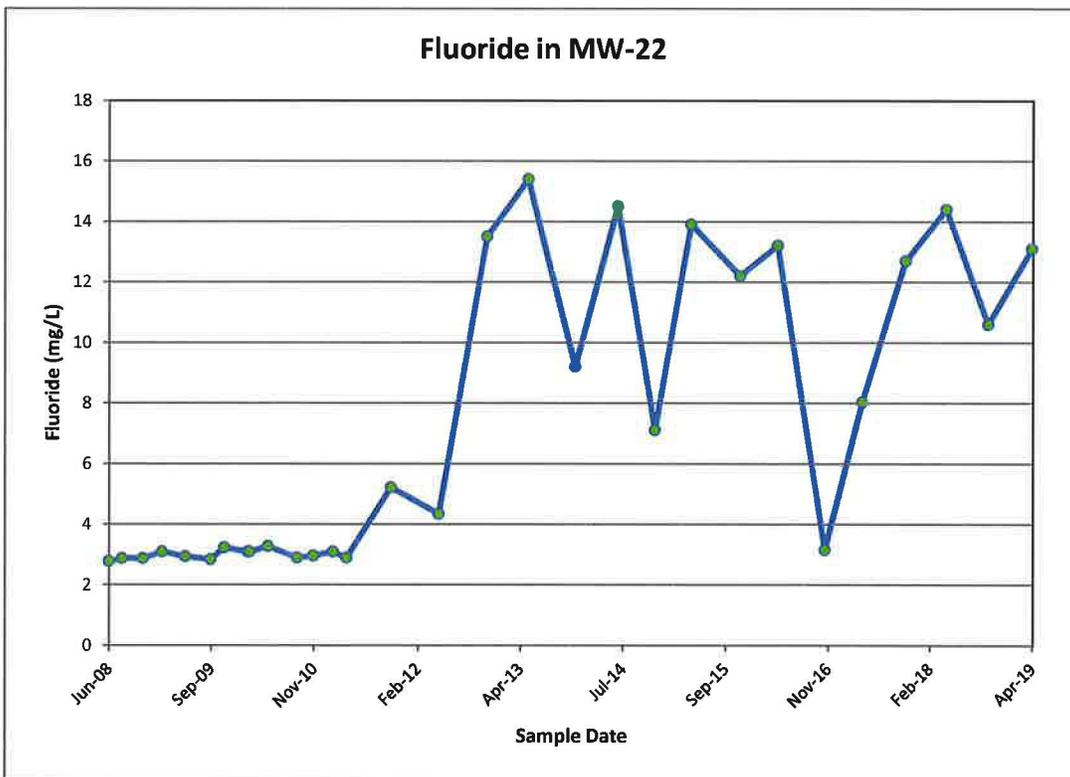
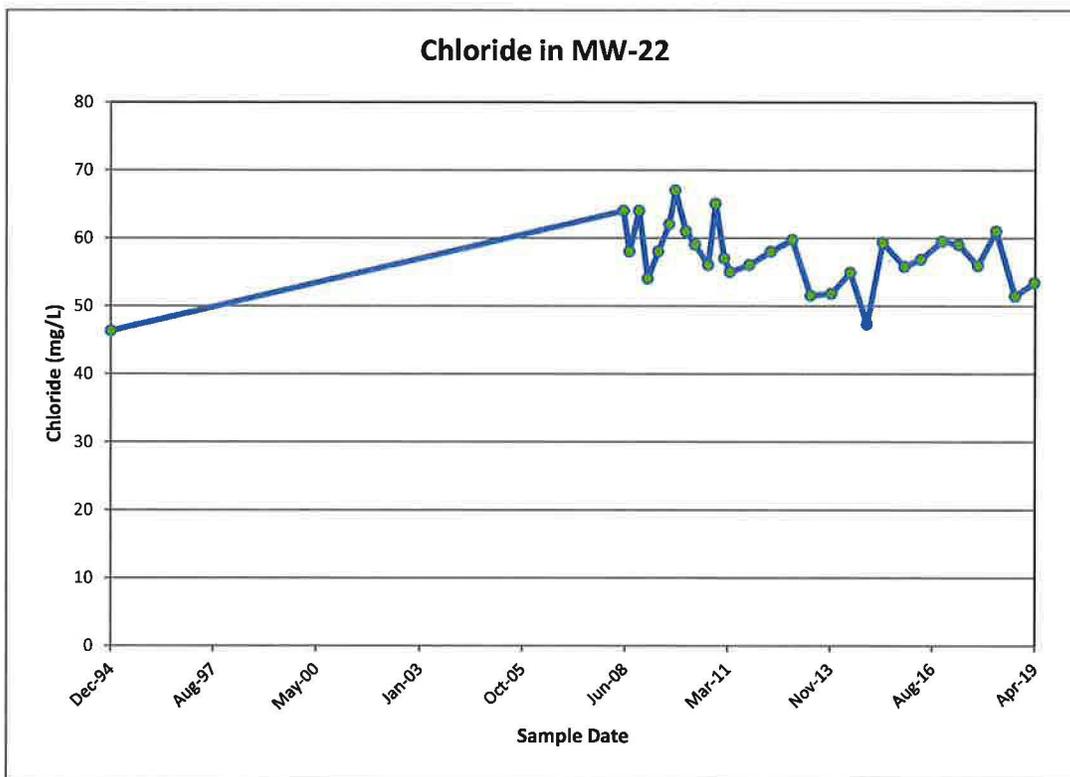
Time concentration plots for MW-20



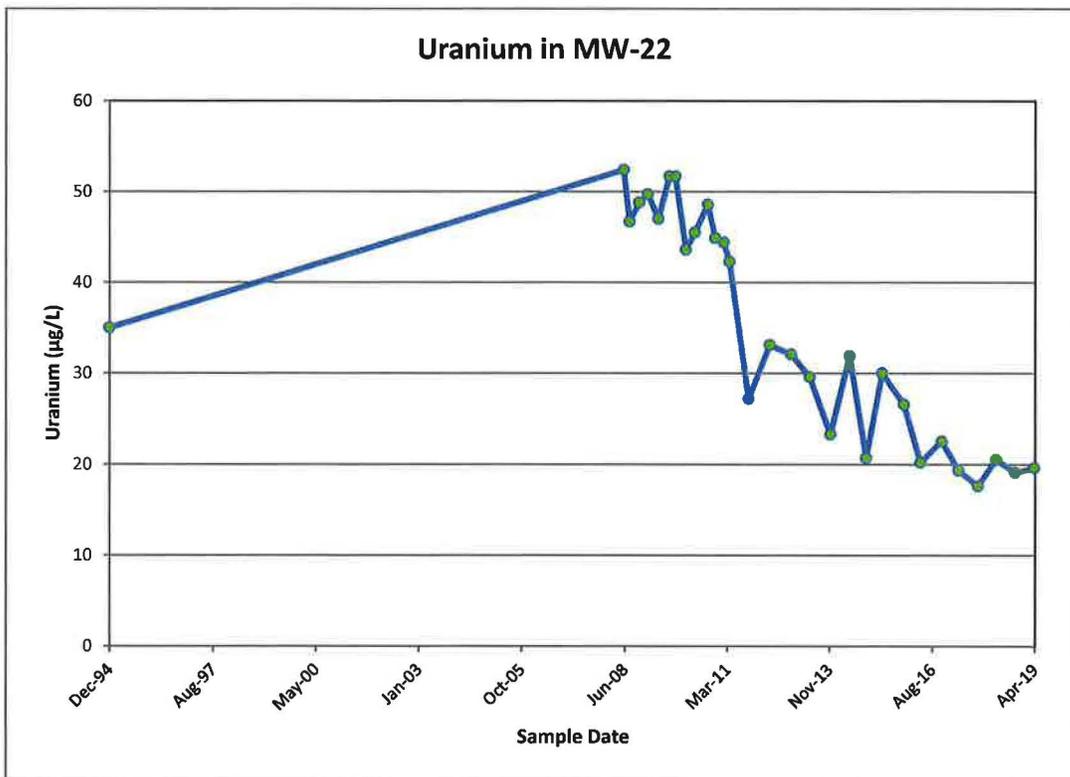
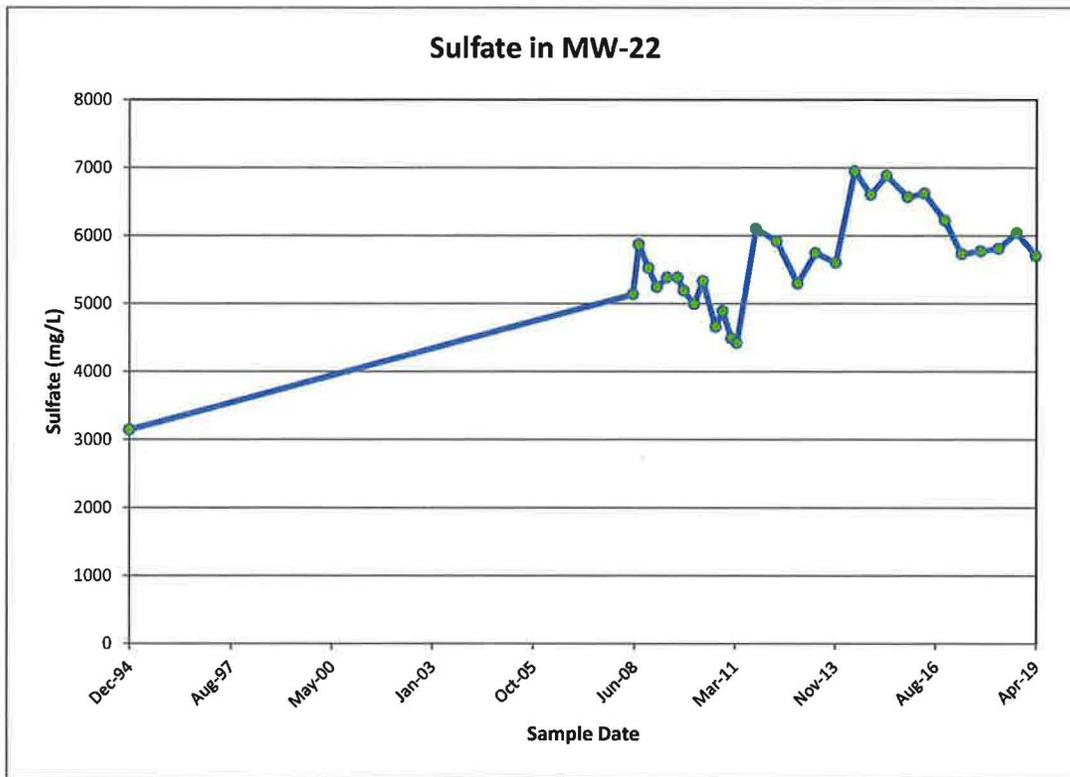
Time concentration plots for MW-20



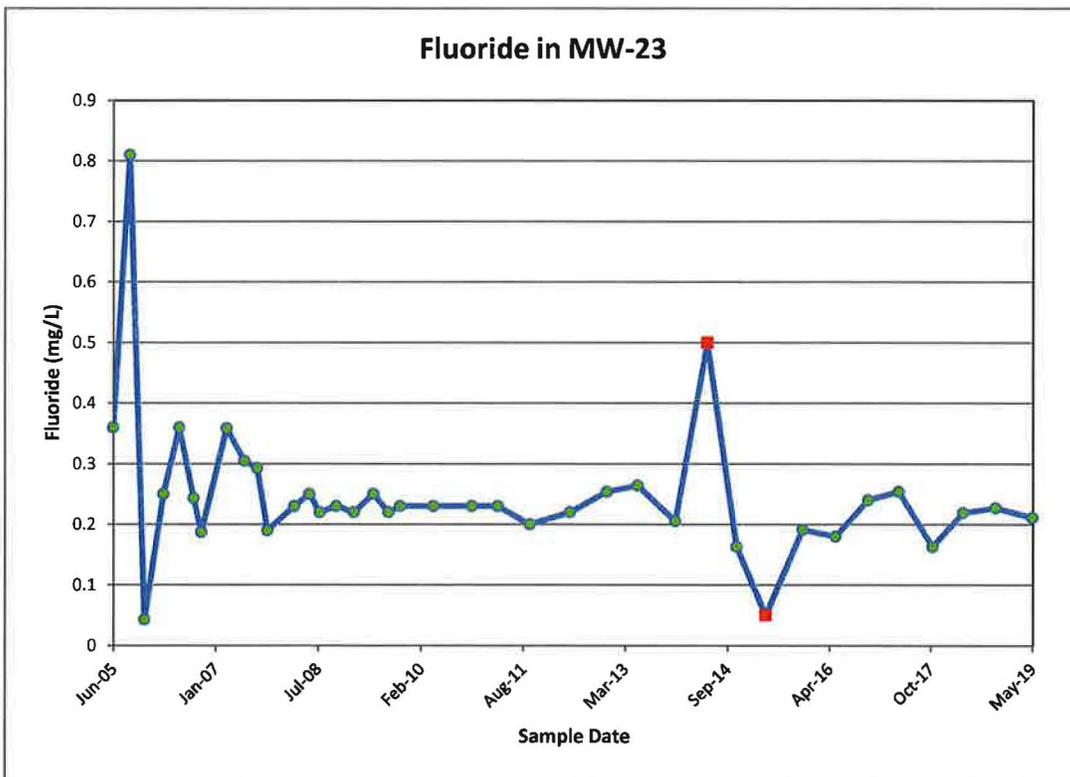
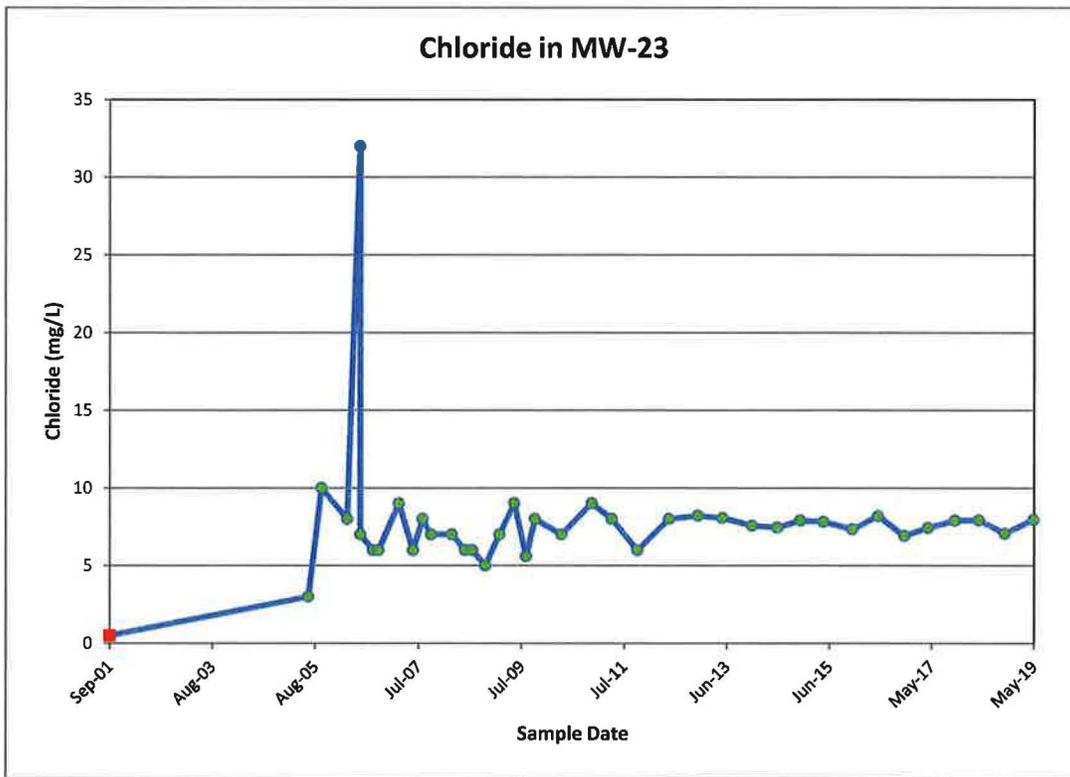
Time concentration plots for MW-22



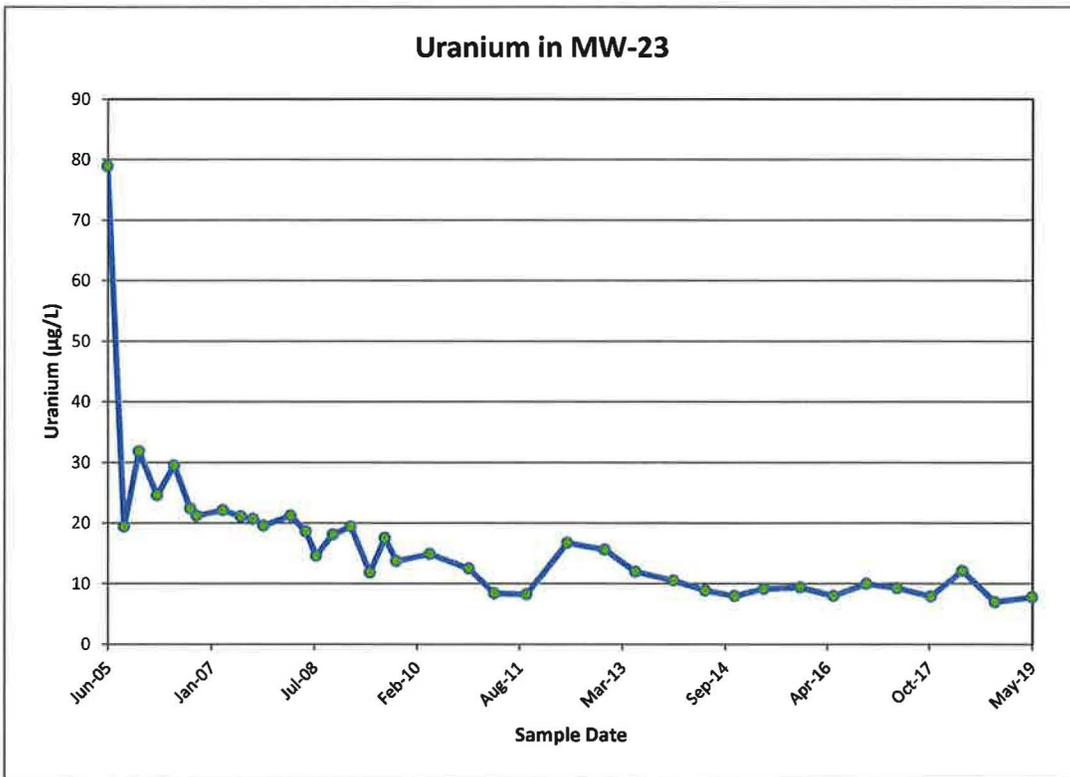
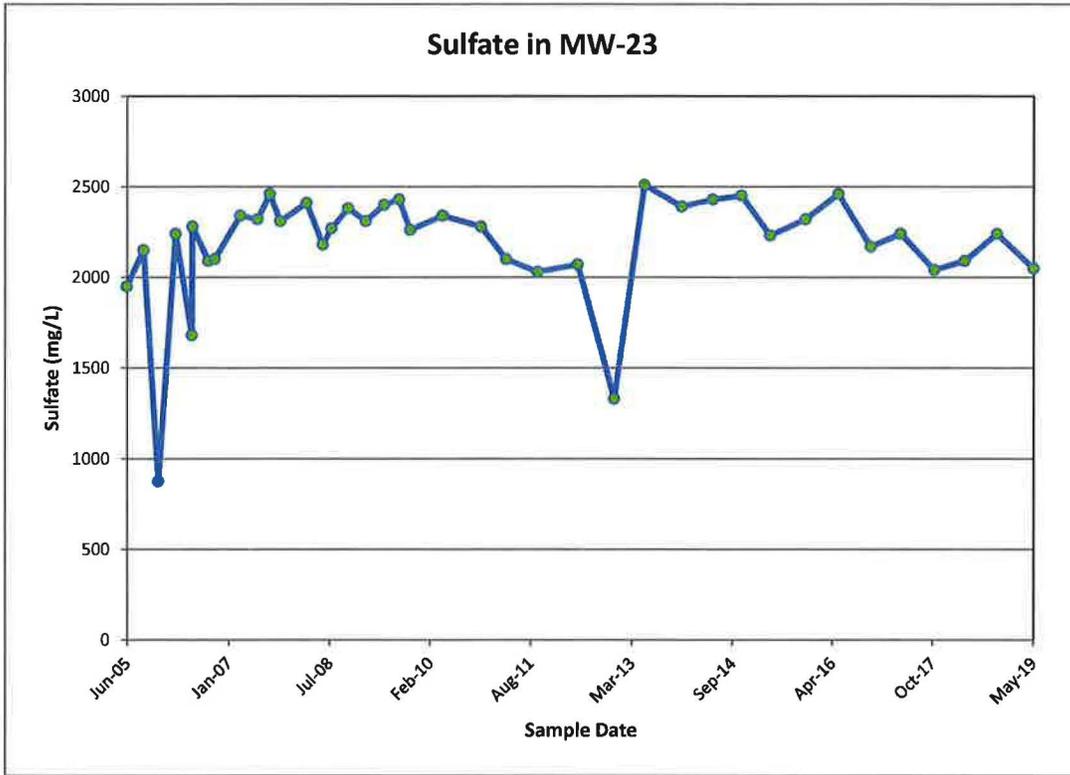
Time concentration plots for MW-22



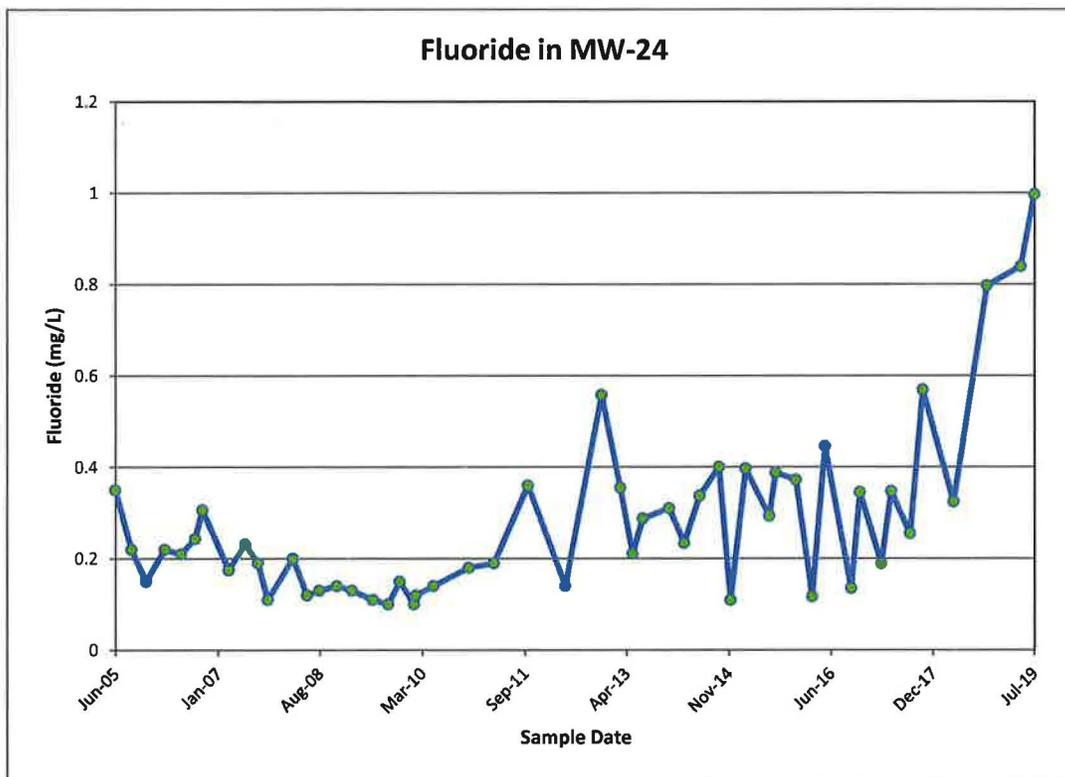
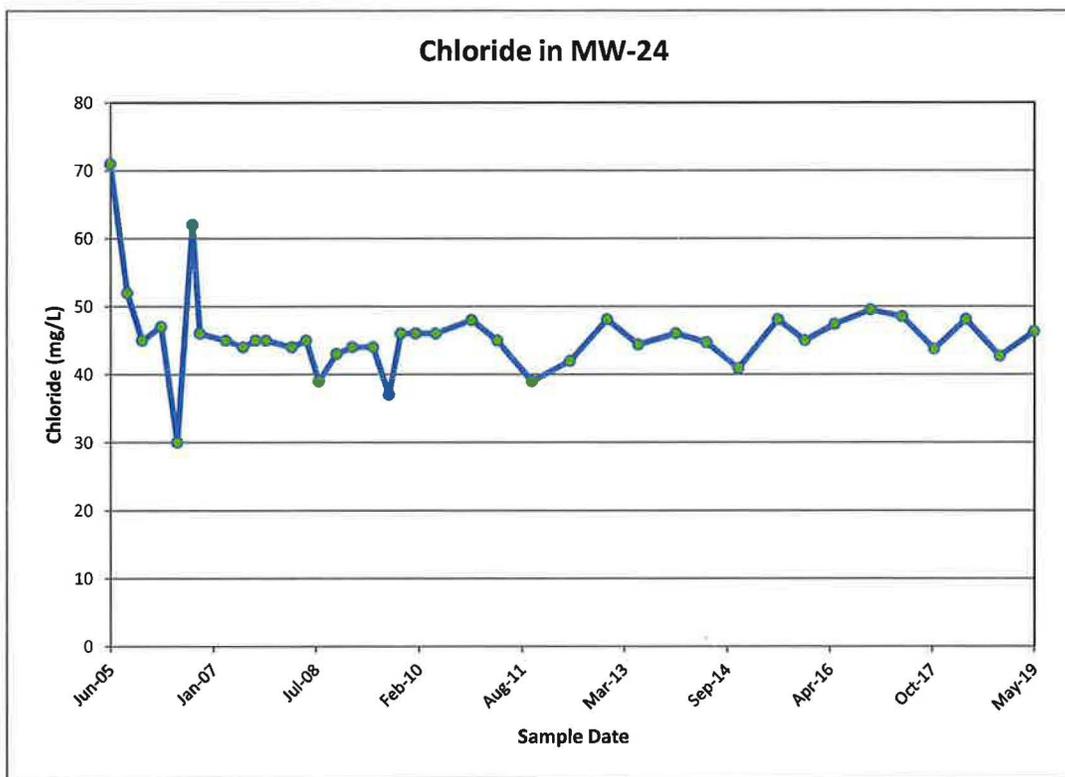
Time concentration plots for MW-23



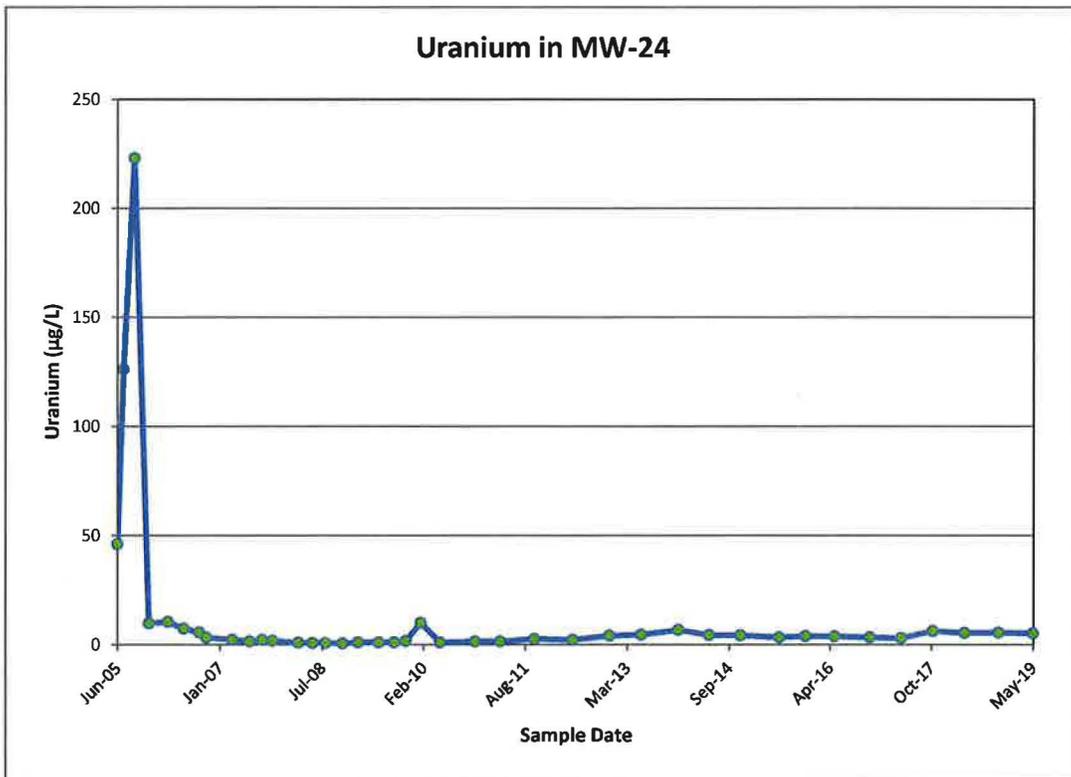
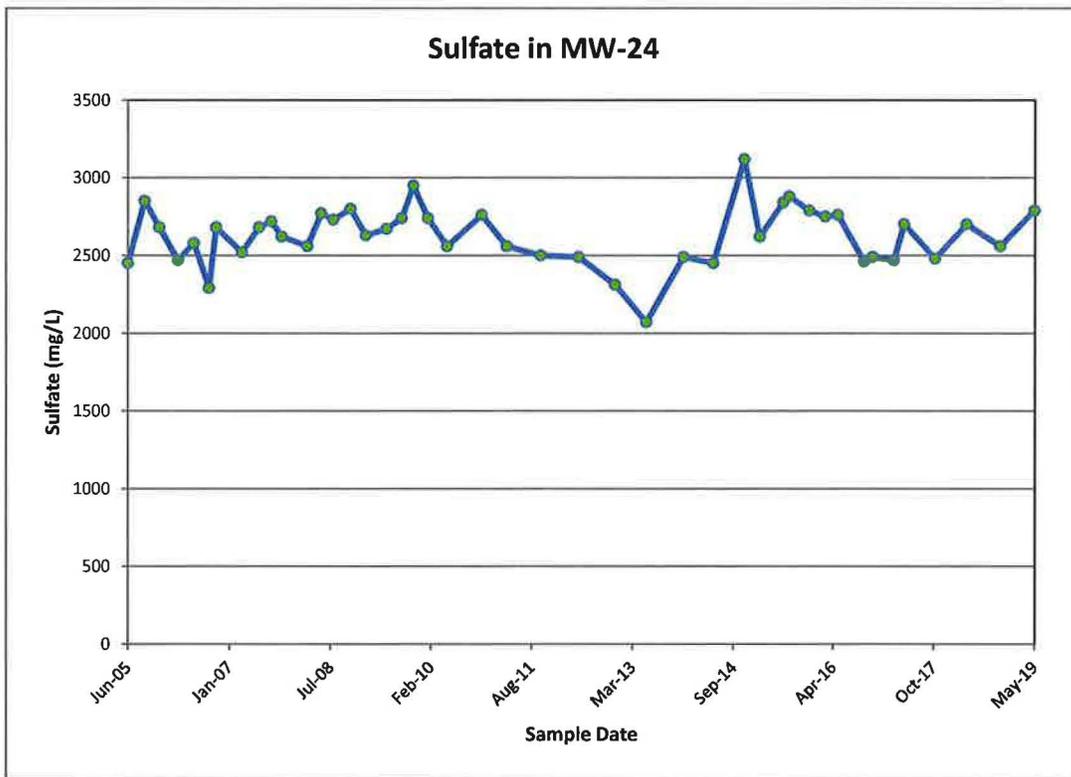
Time concentration plots for MW-23



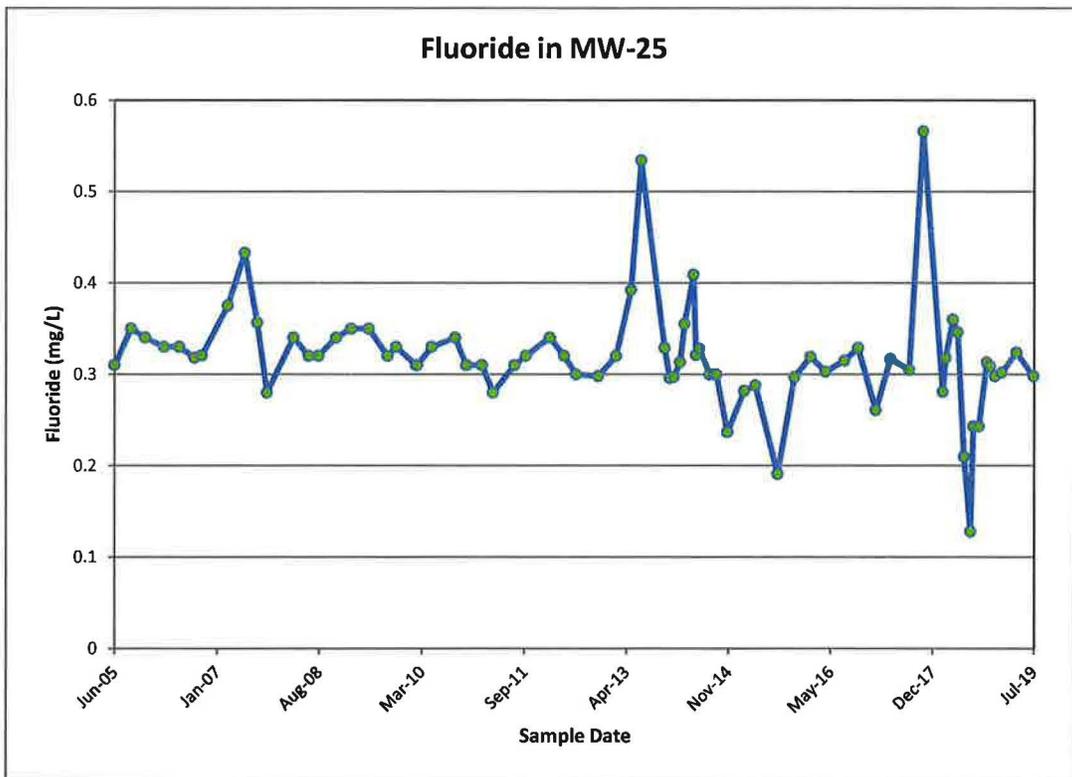
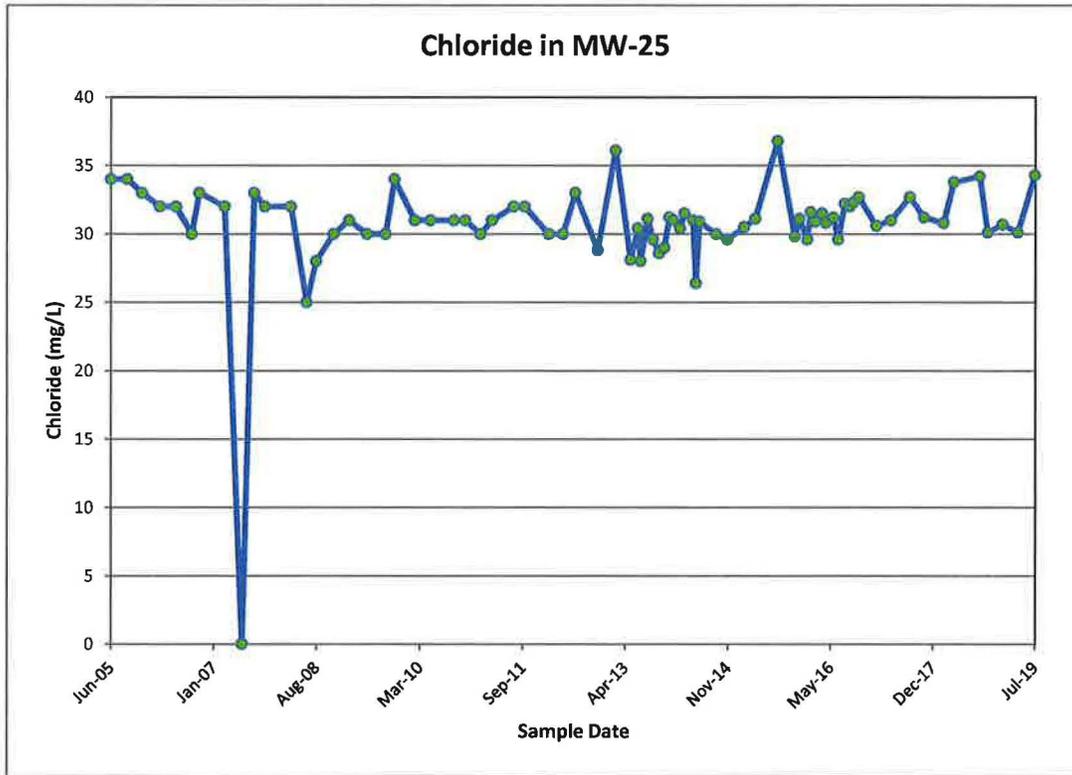
Time concentration plots for MW-24



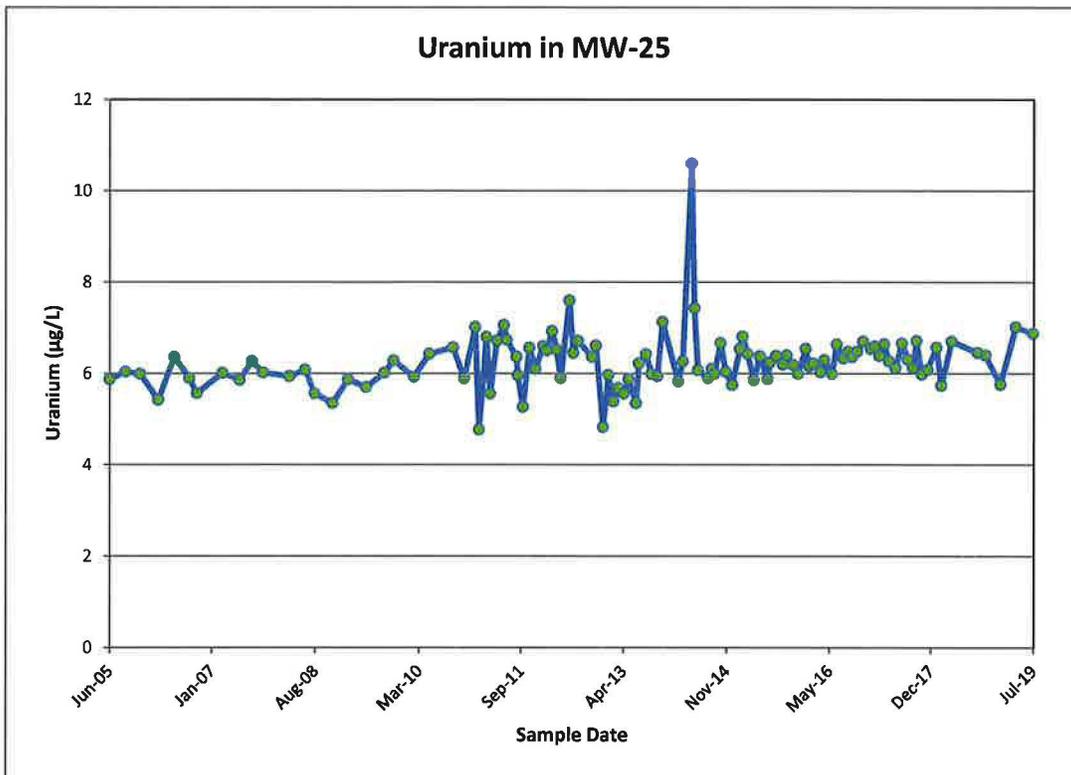
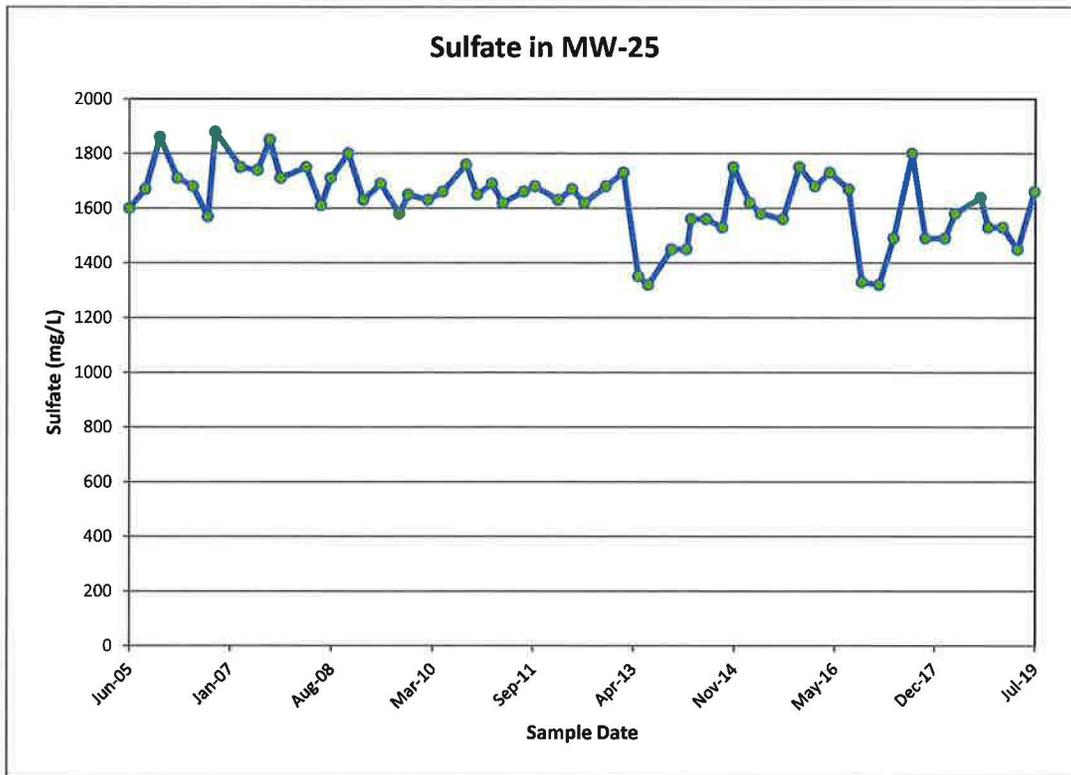
Time concentration plots for MW-24



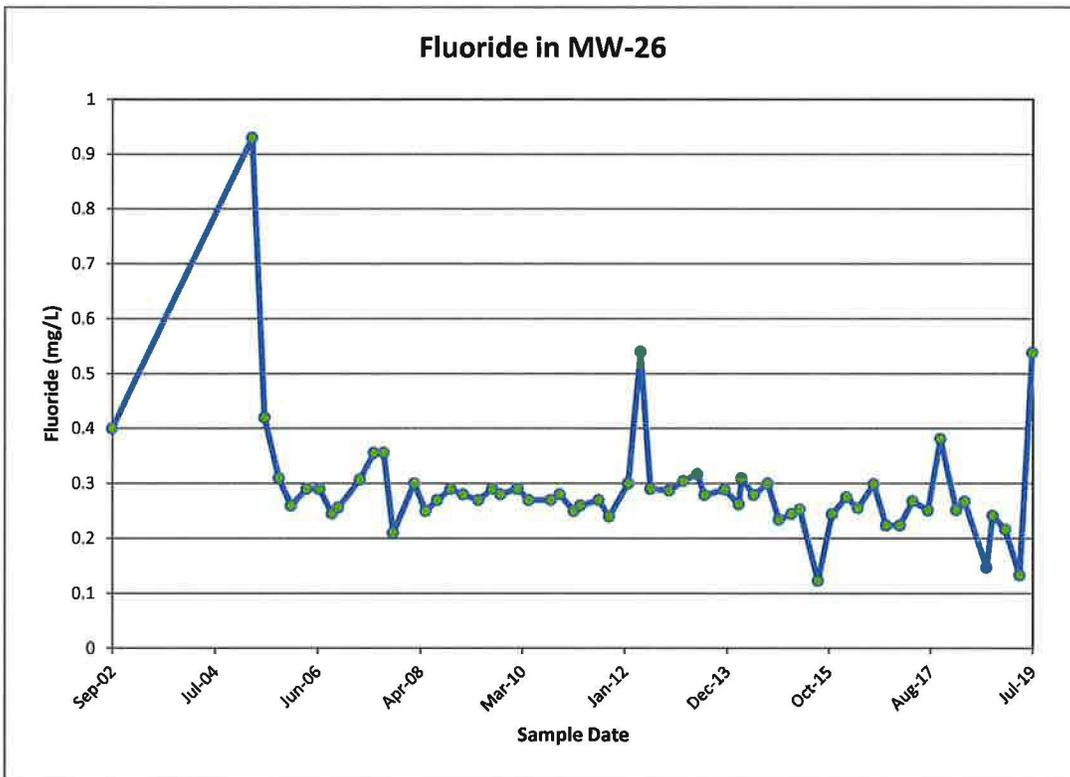
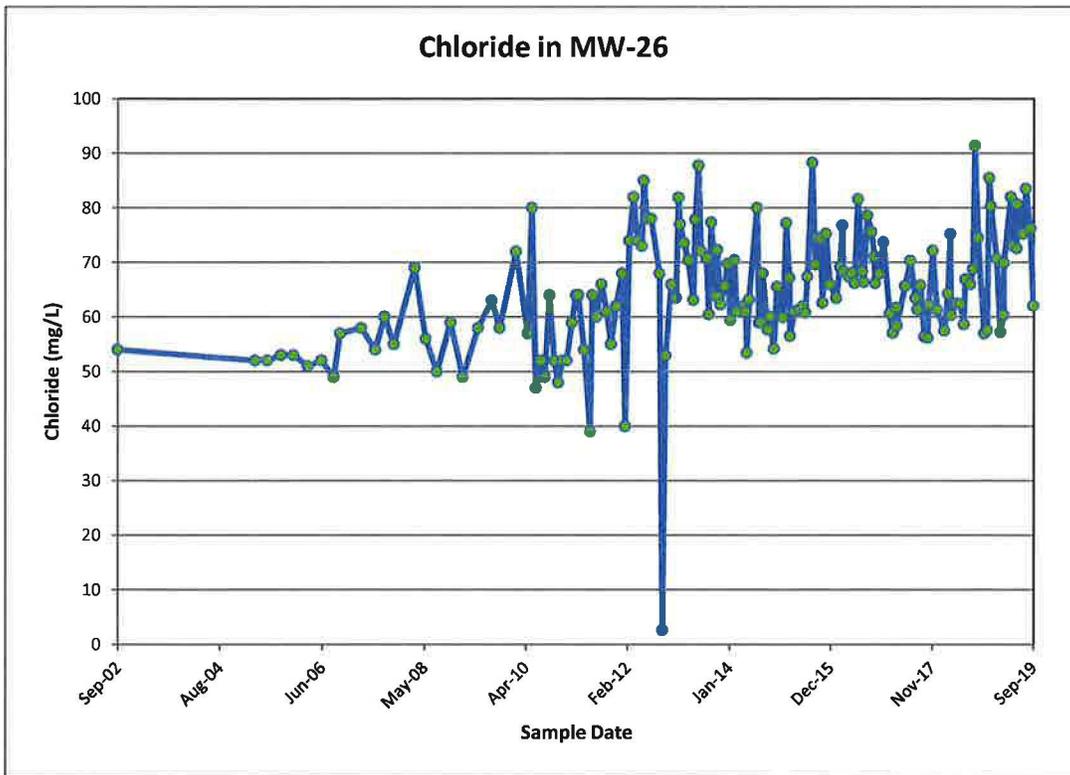
Time concentration plots for MW-25



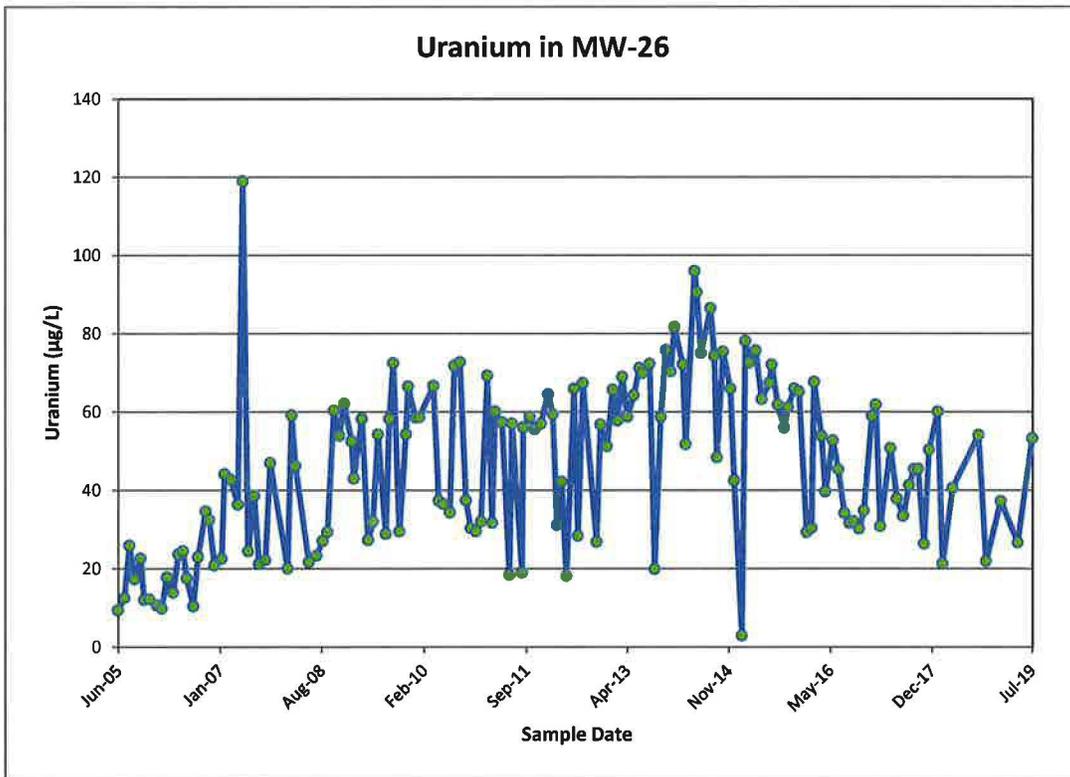
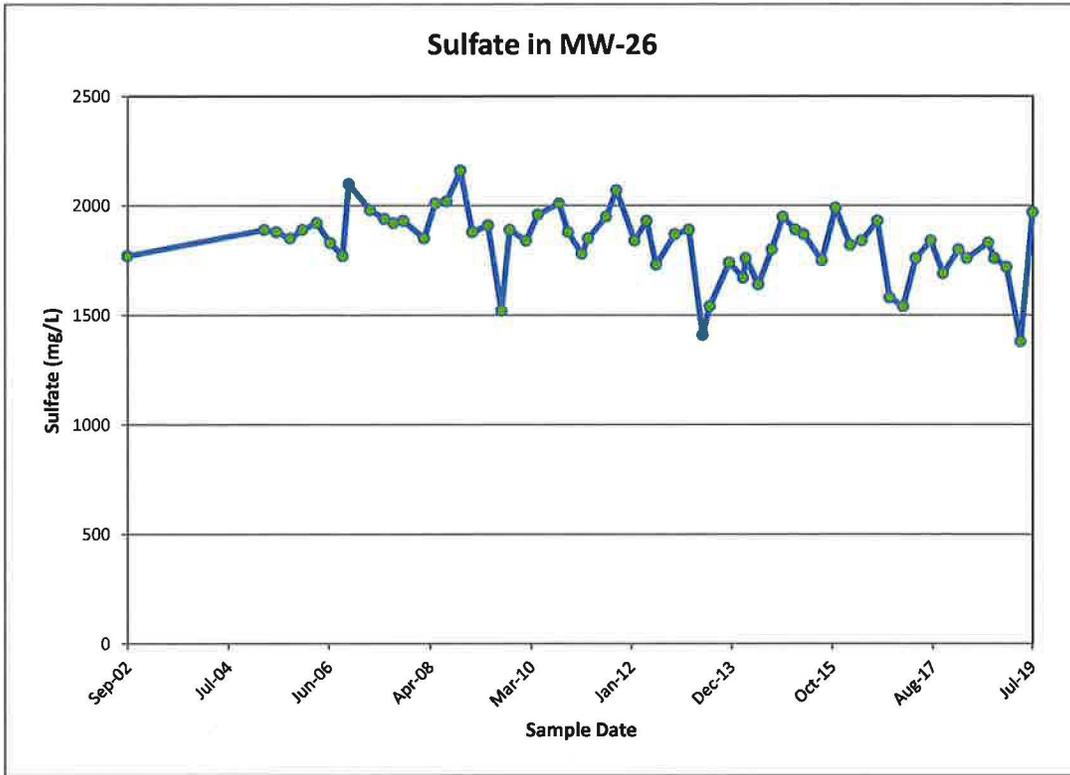
Time concentration plots for MW-25



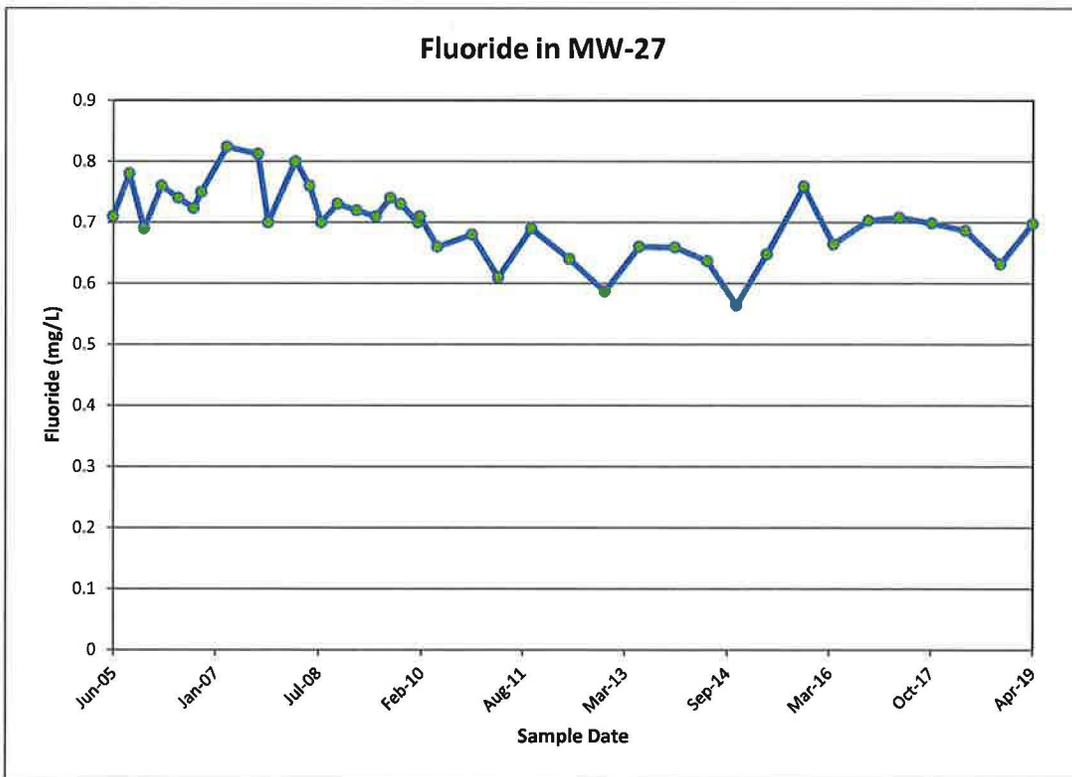
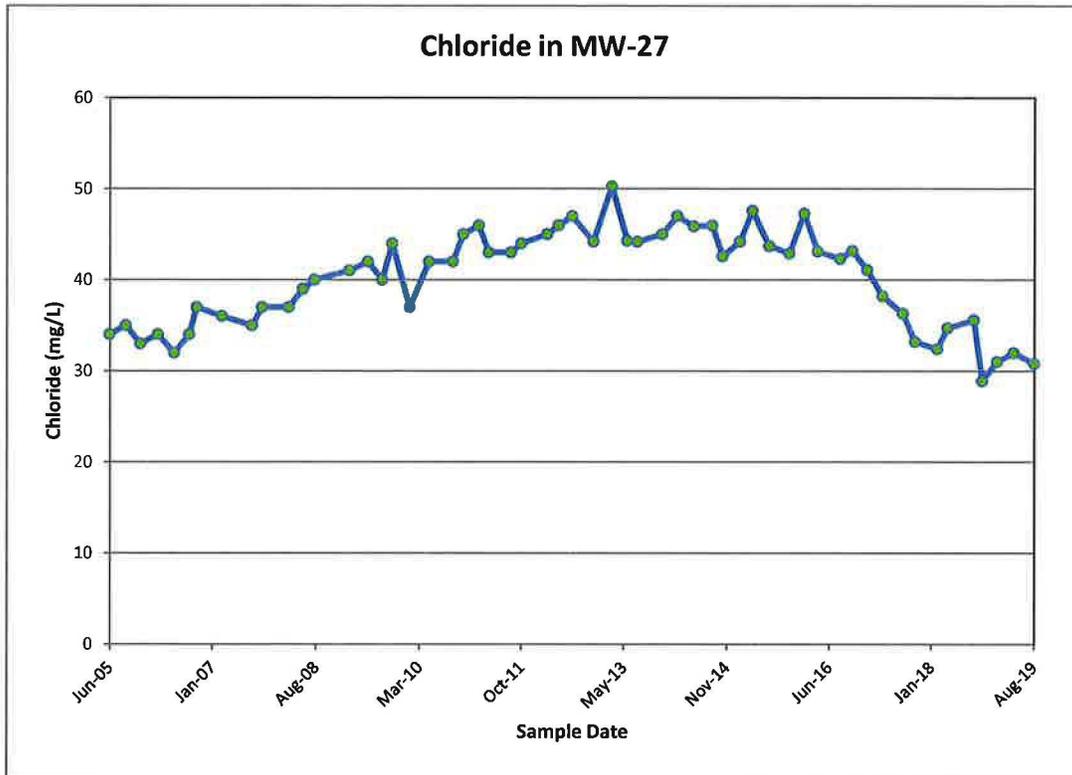
Time concentration plots for MW-26



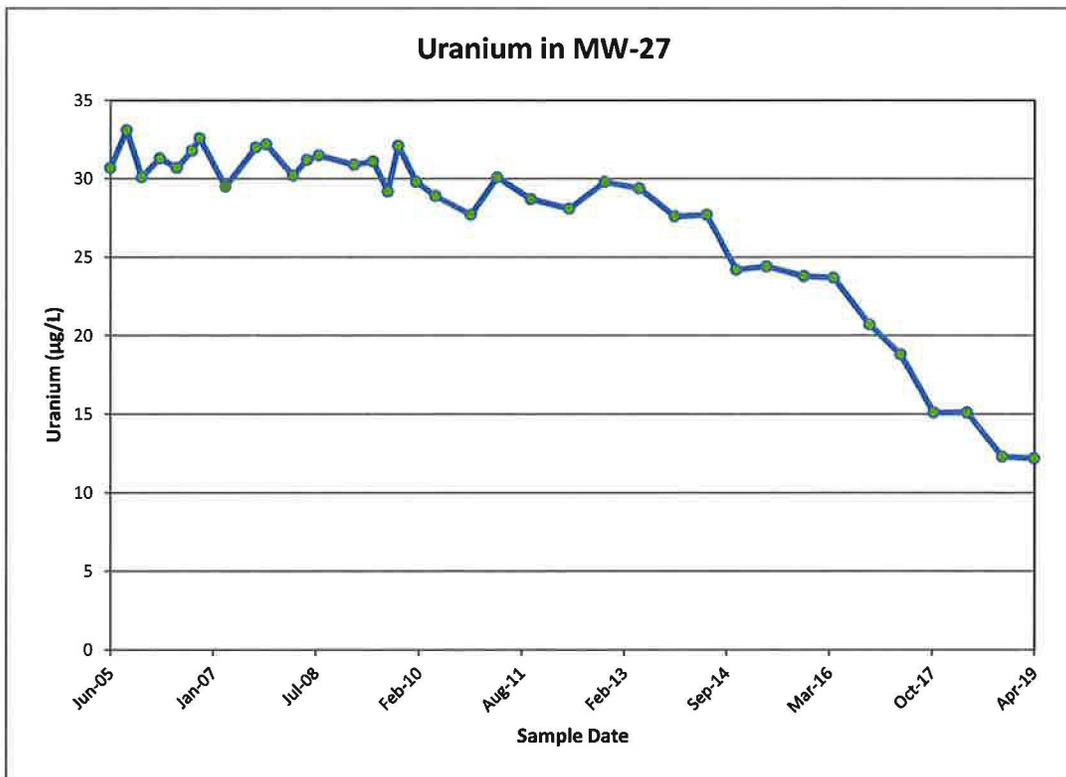
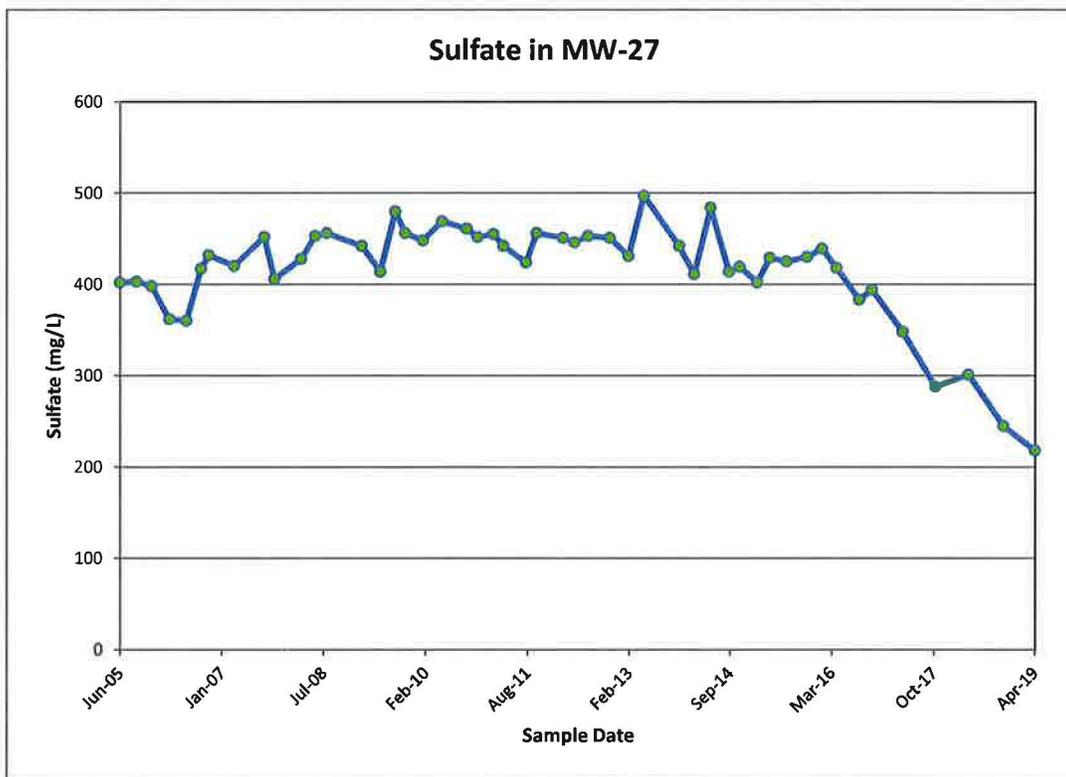
Time concentration plots for MW-26



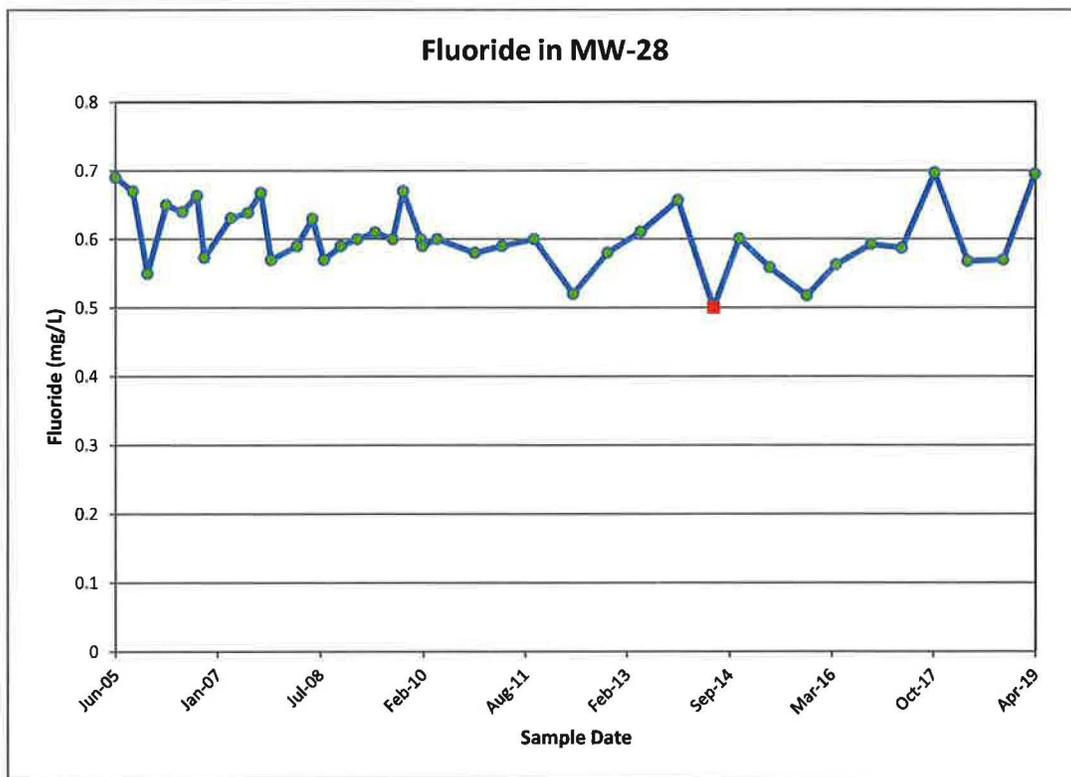
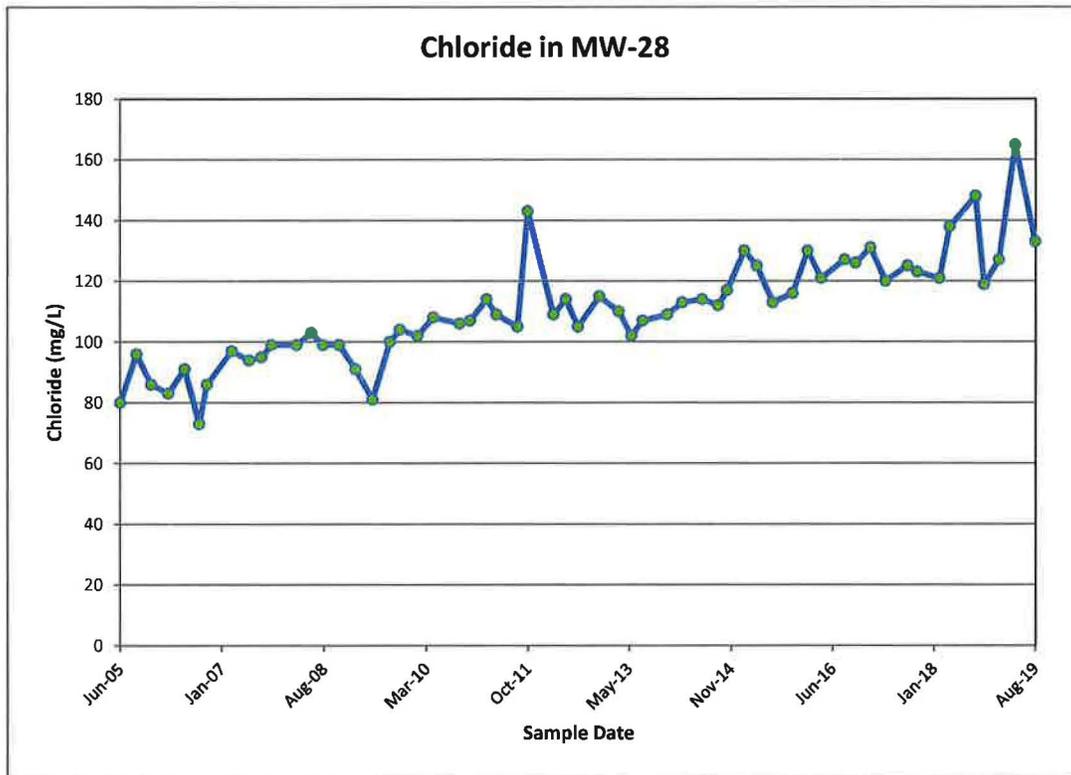
Time concentration plots for MW-27



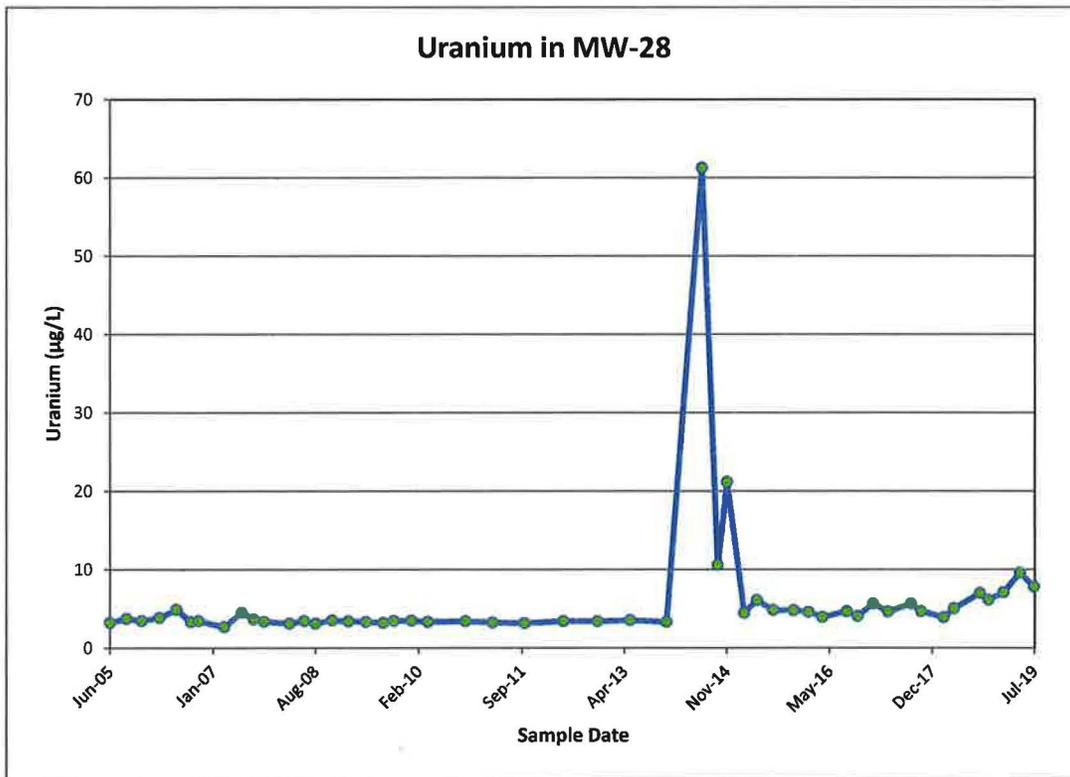
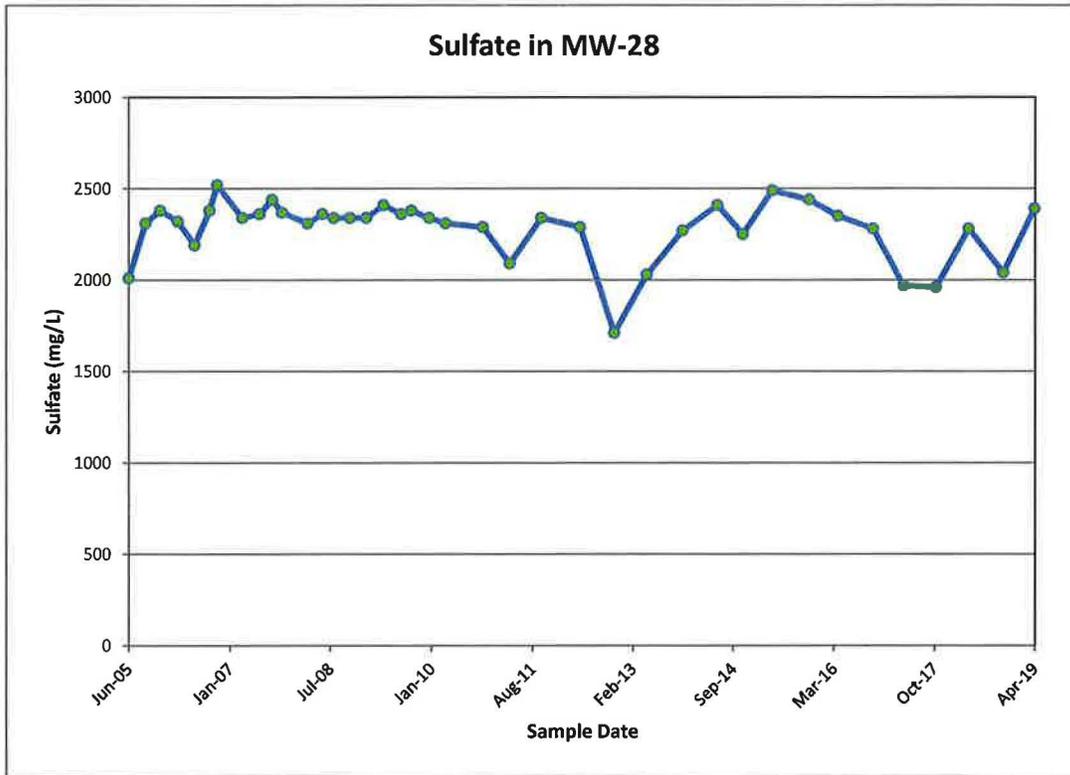
Time concentration plots for MW-27



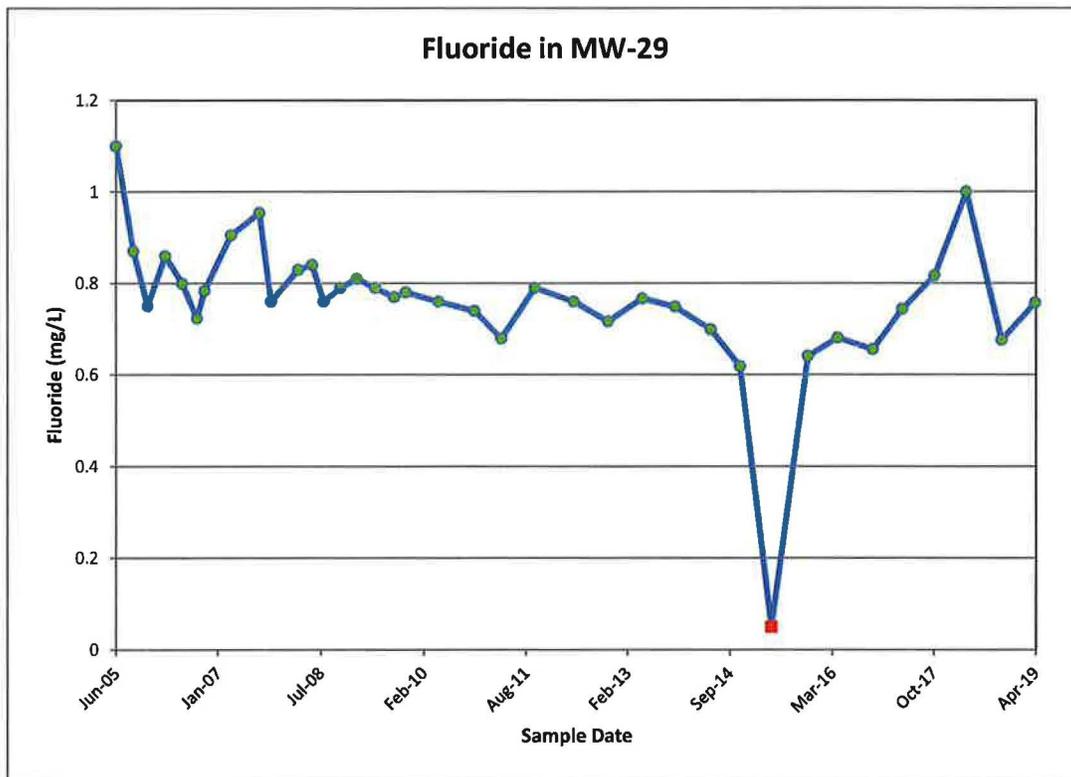
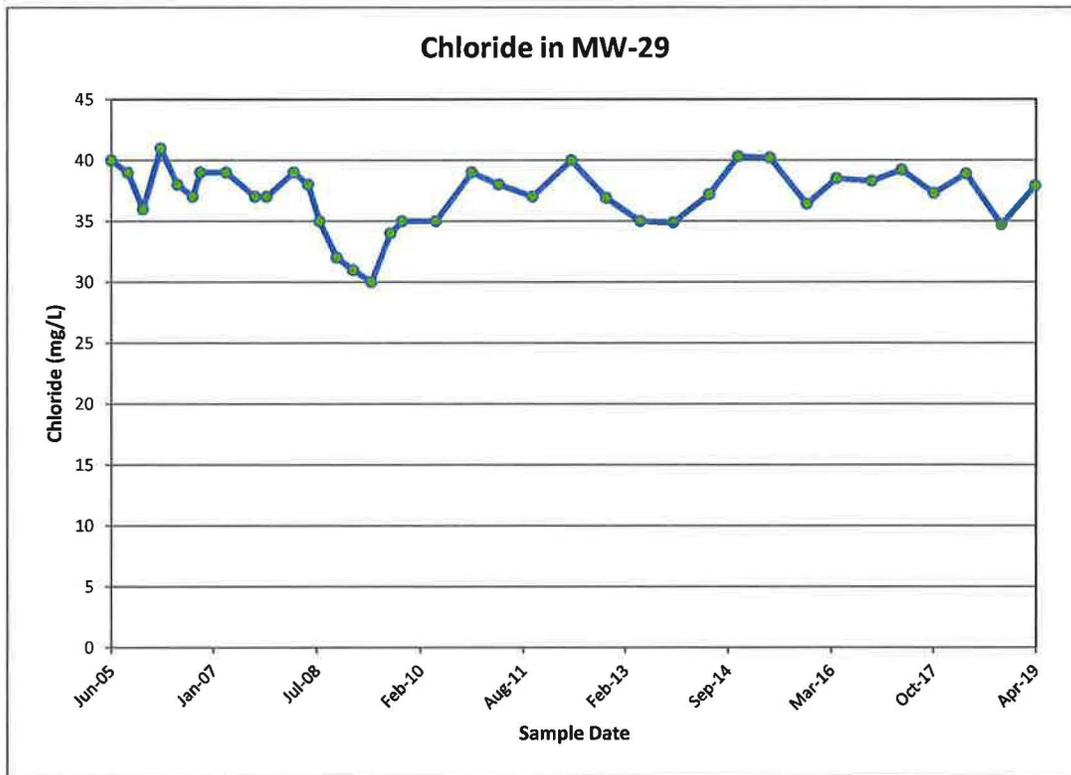
Time concentration plots for MW-28



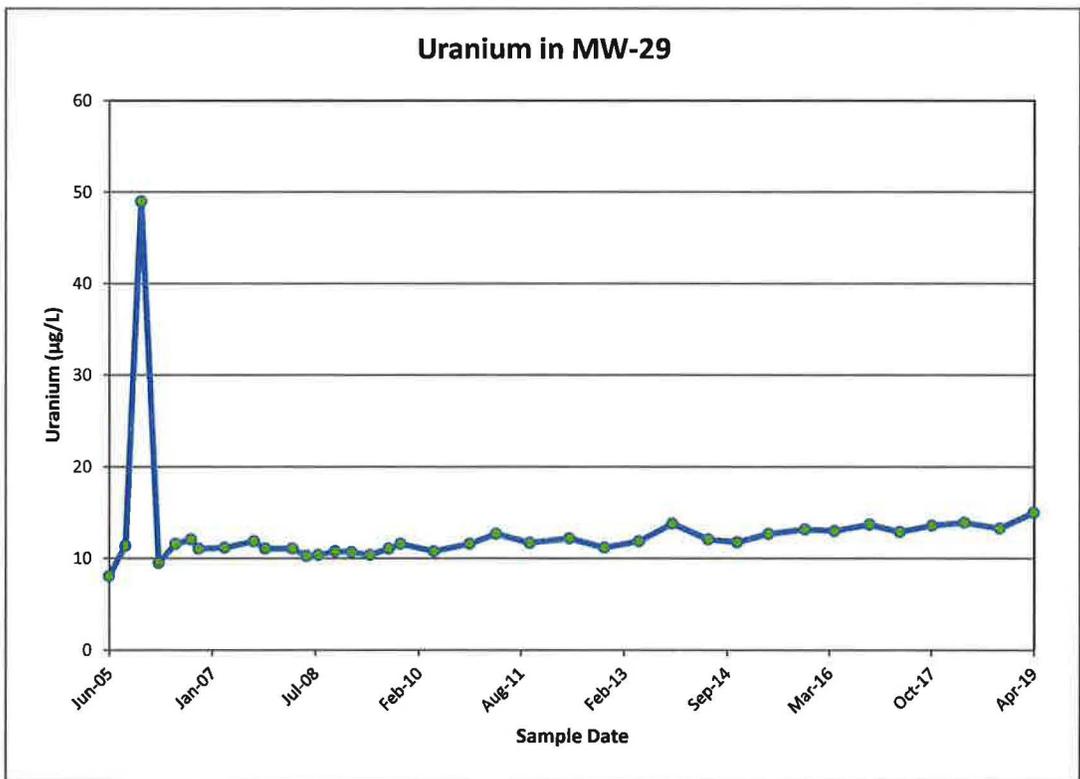
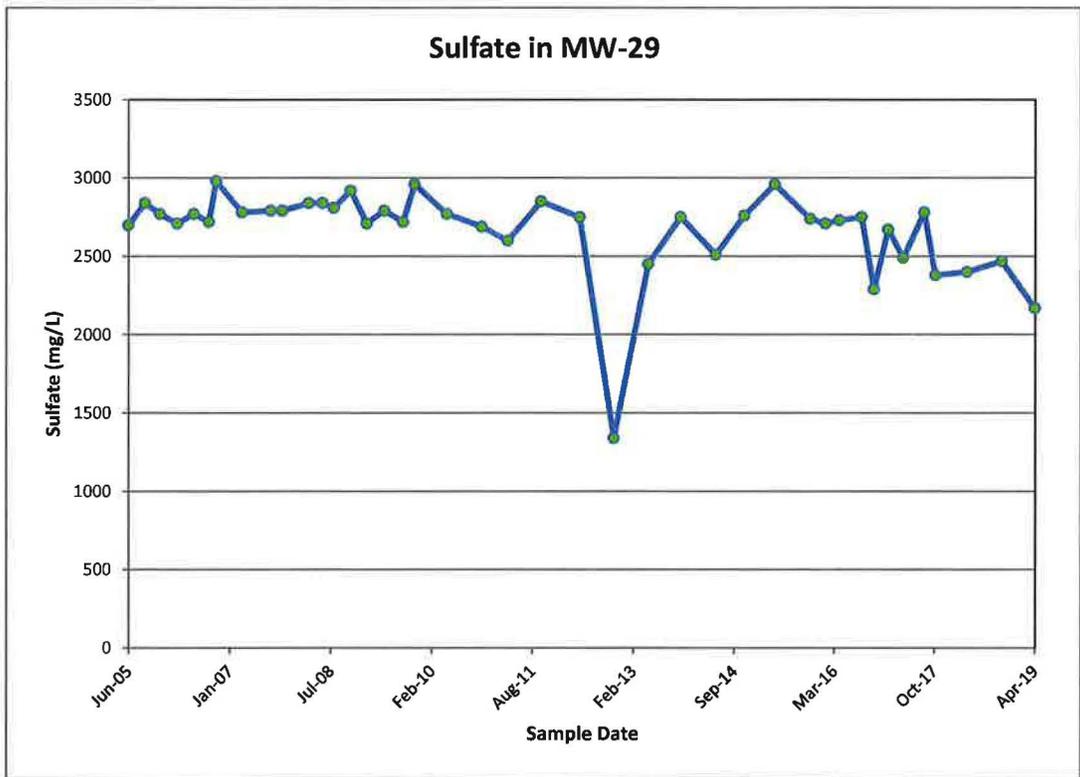
Time concentration plots for MW-28



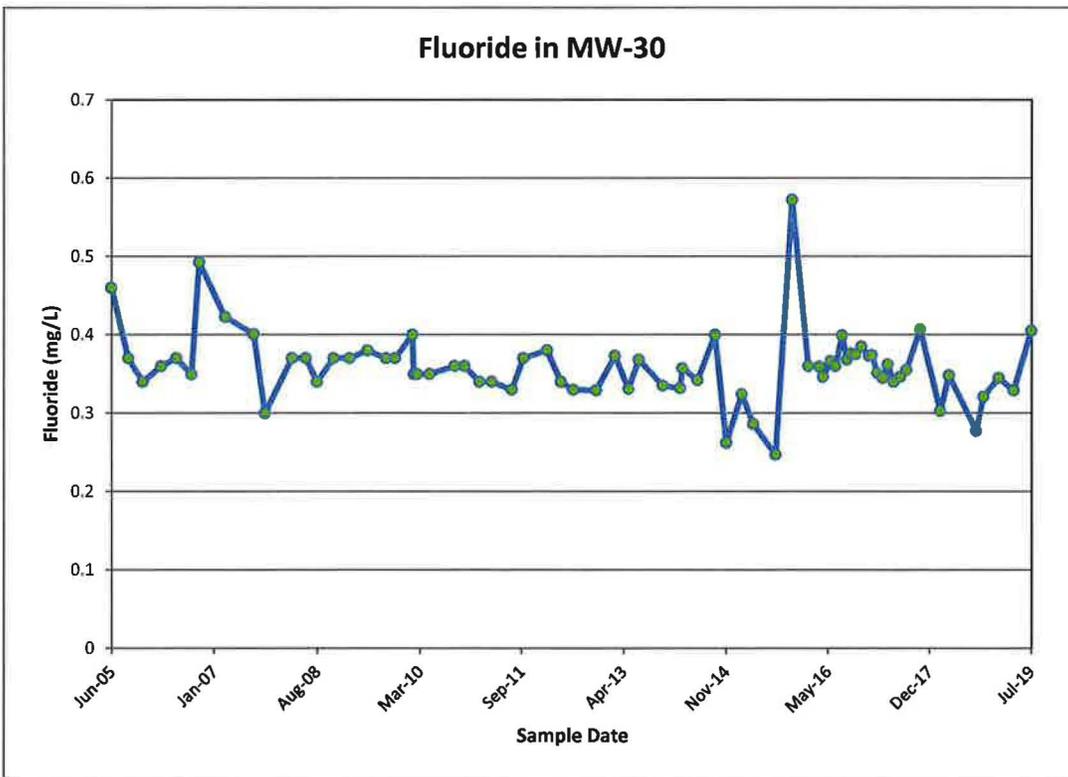
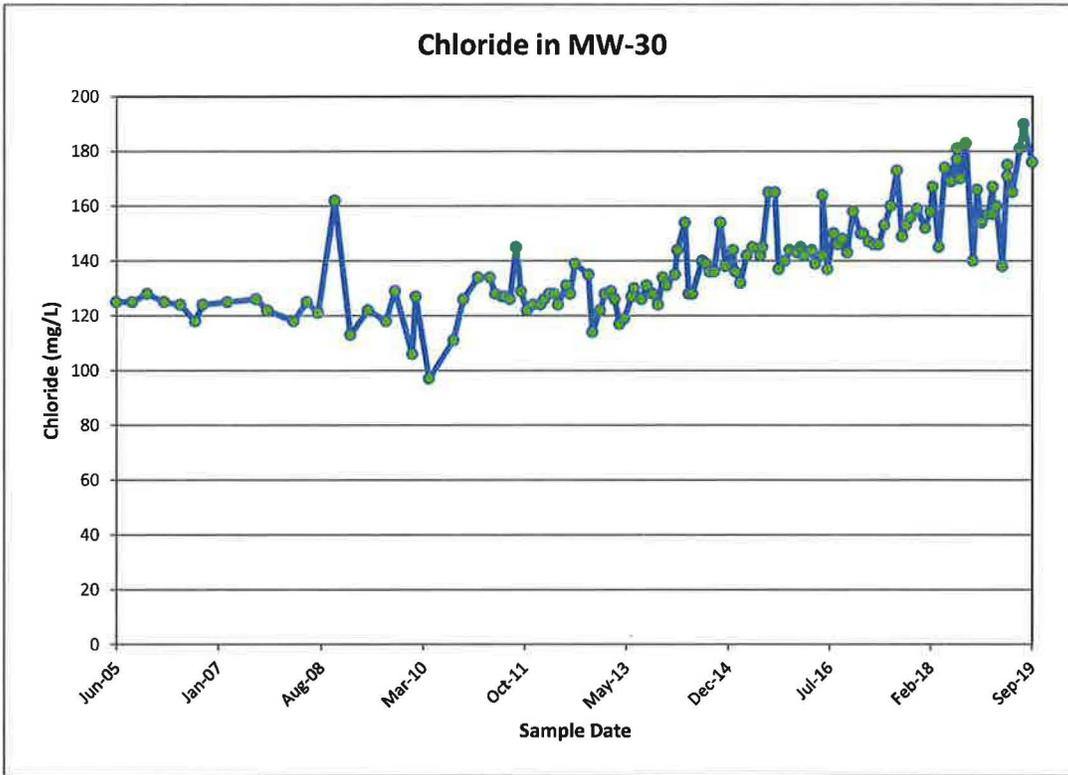
Time concentration plots for MW-29



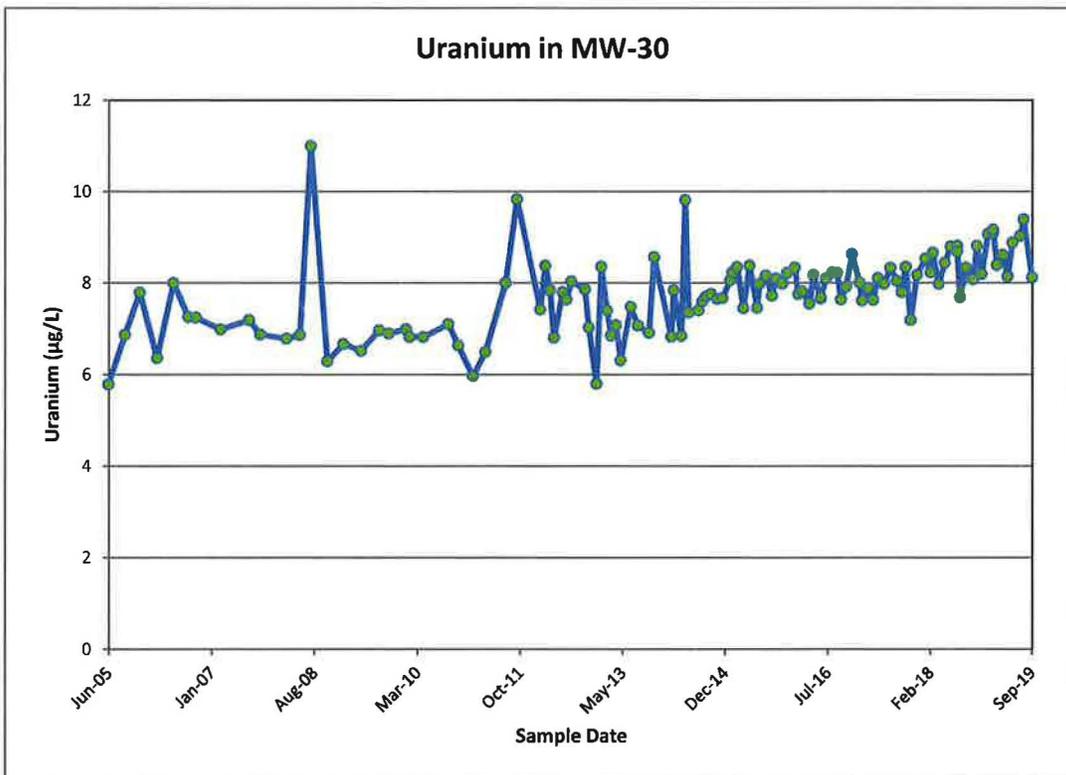
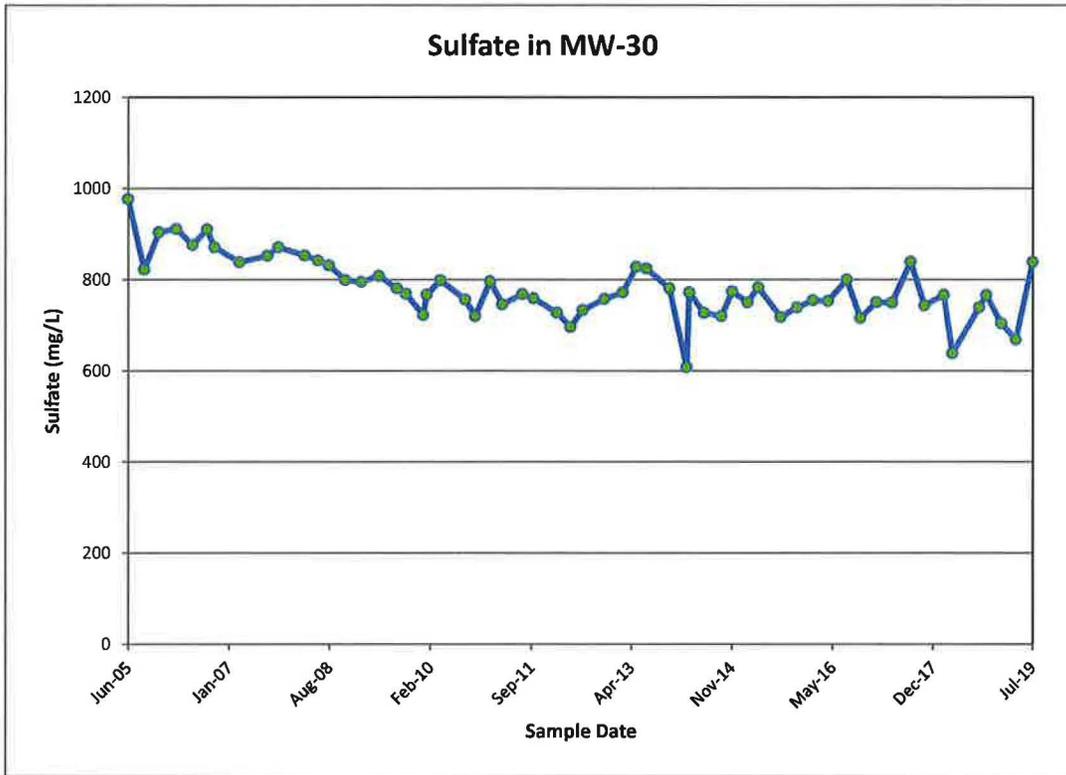
Time concentration plots for MW-29



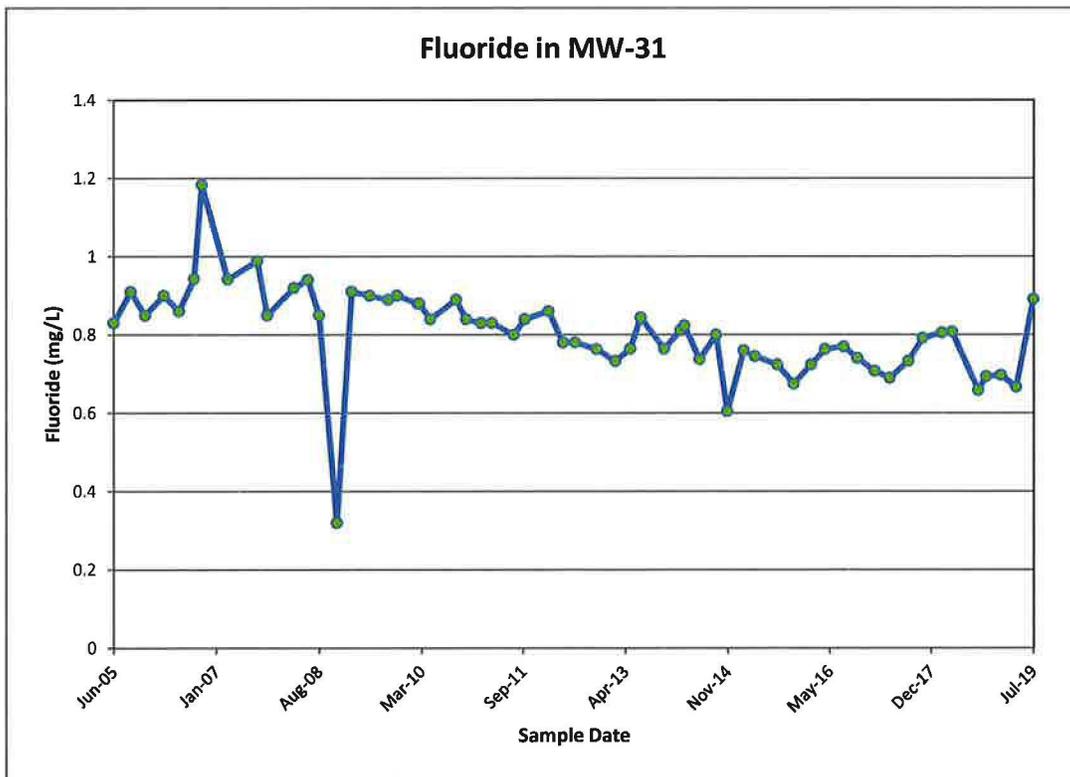
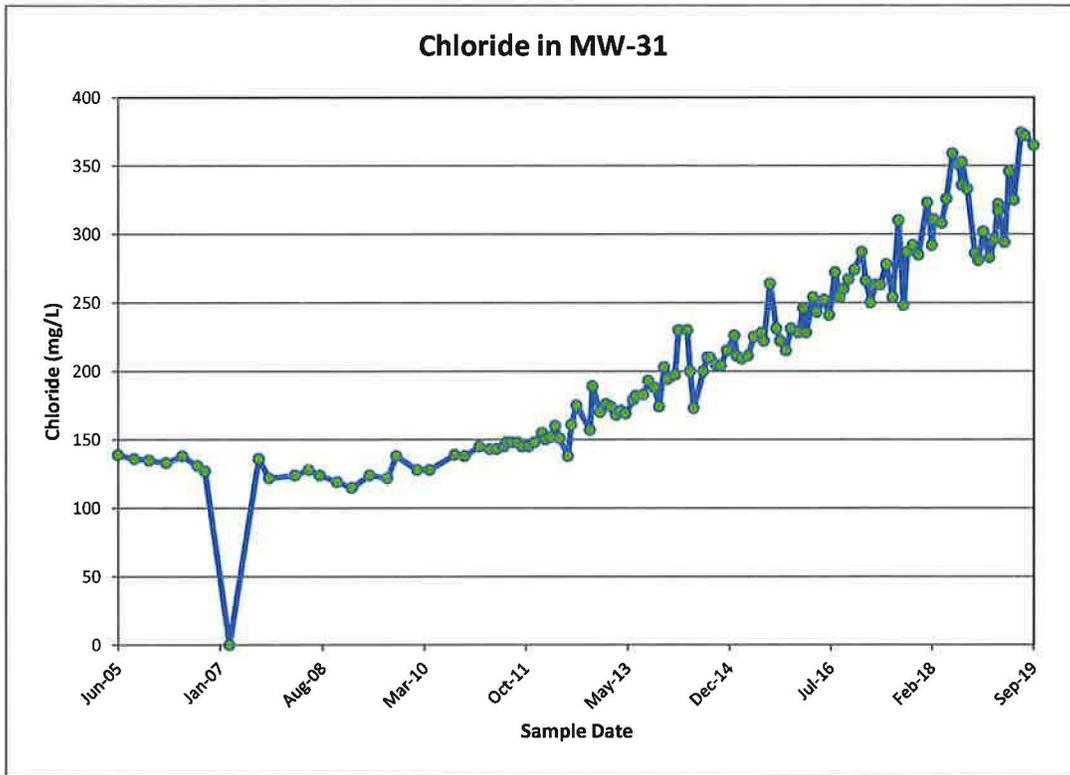
Time concentration plots for MW-30



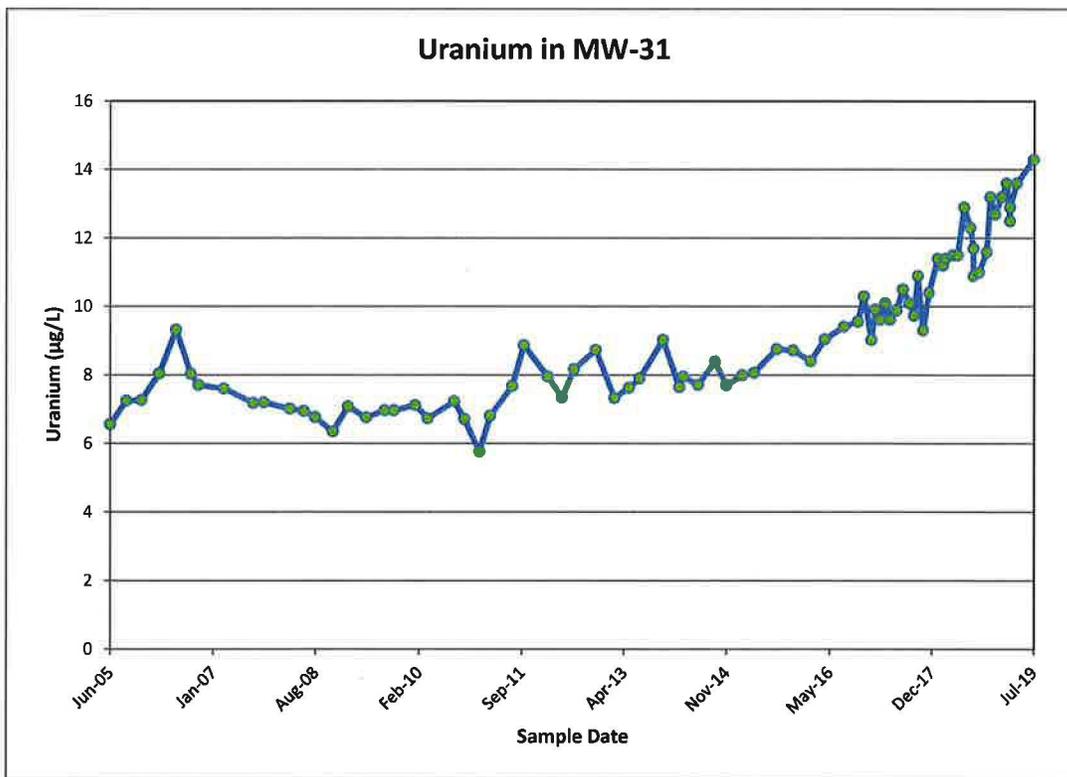
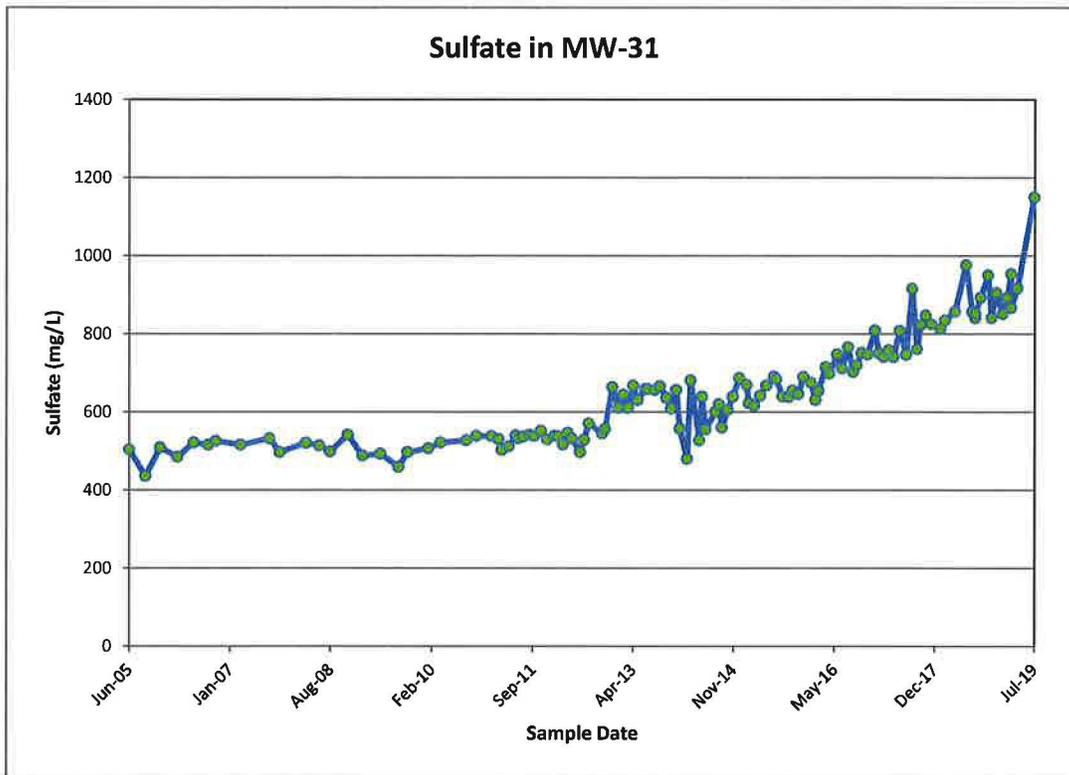
Time concentration plots for MW-30



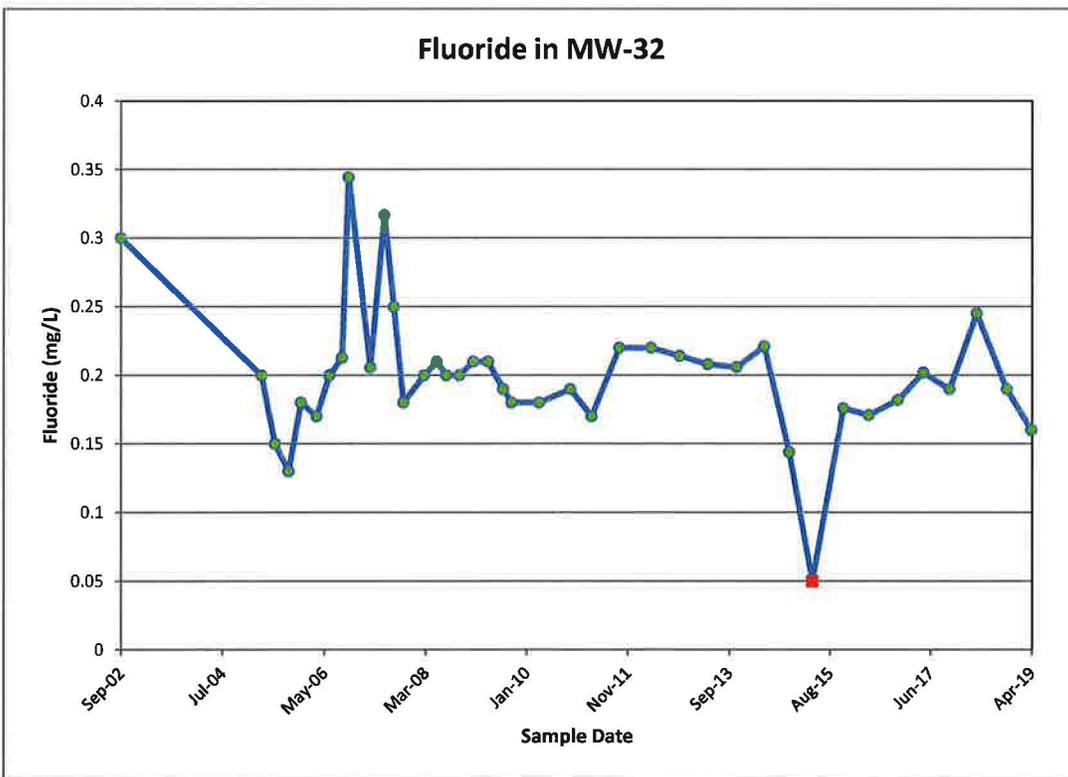
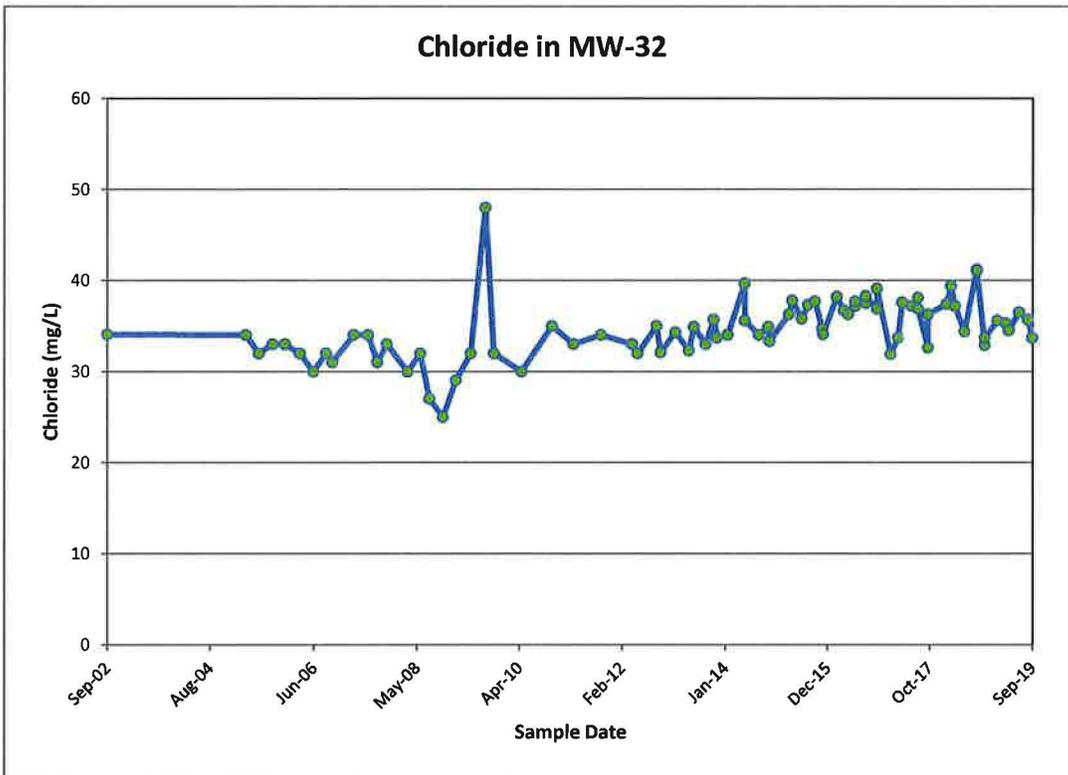
Time concentration plots for MW-31



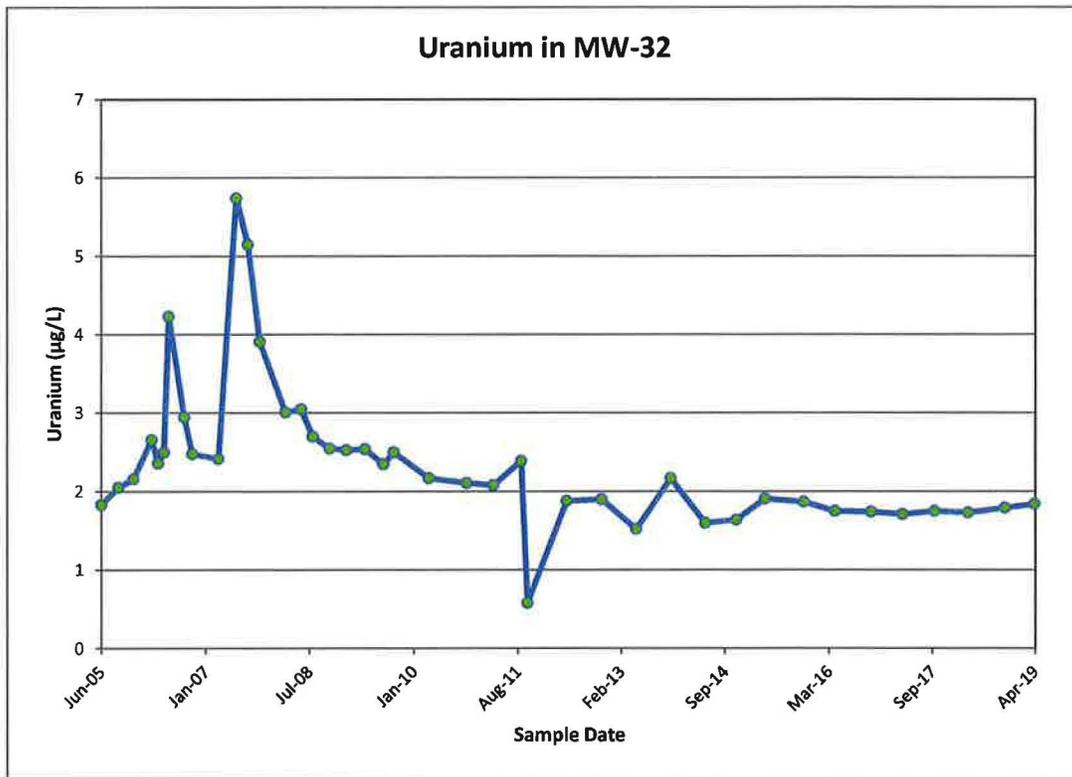
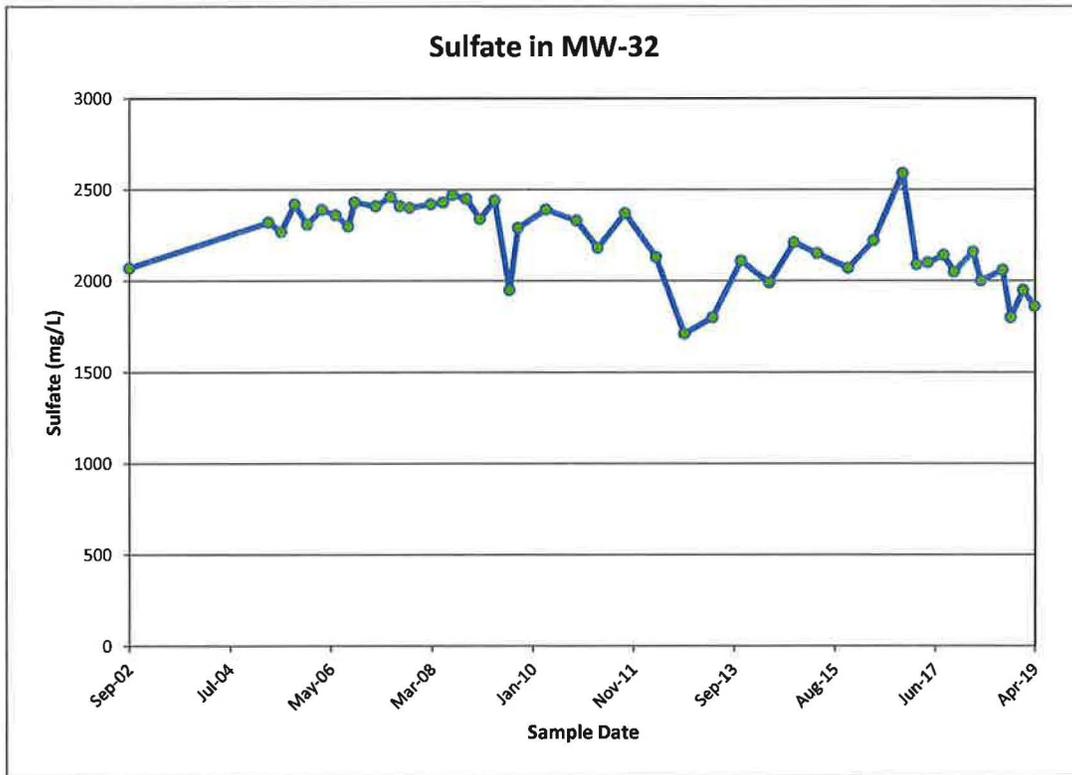
Time concentration plots for MW-31



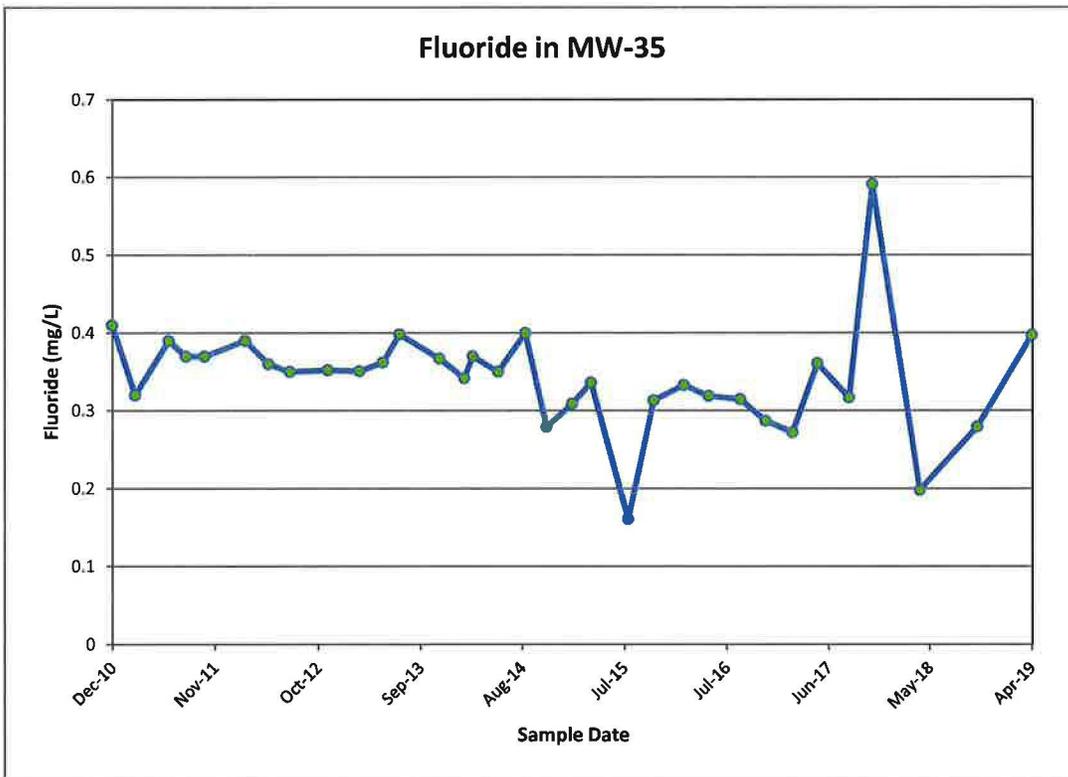
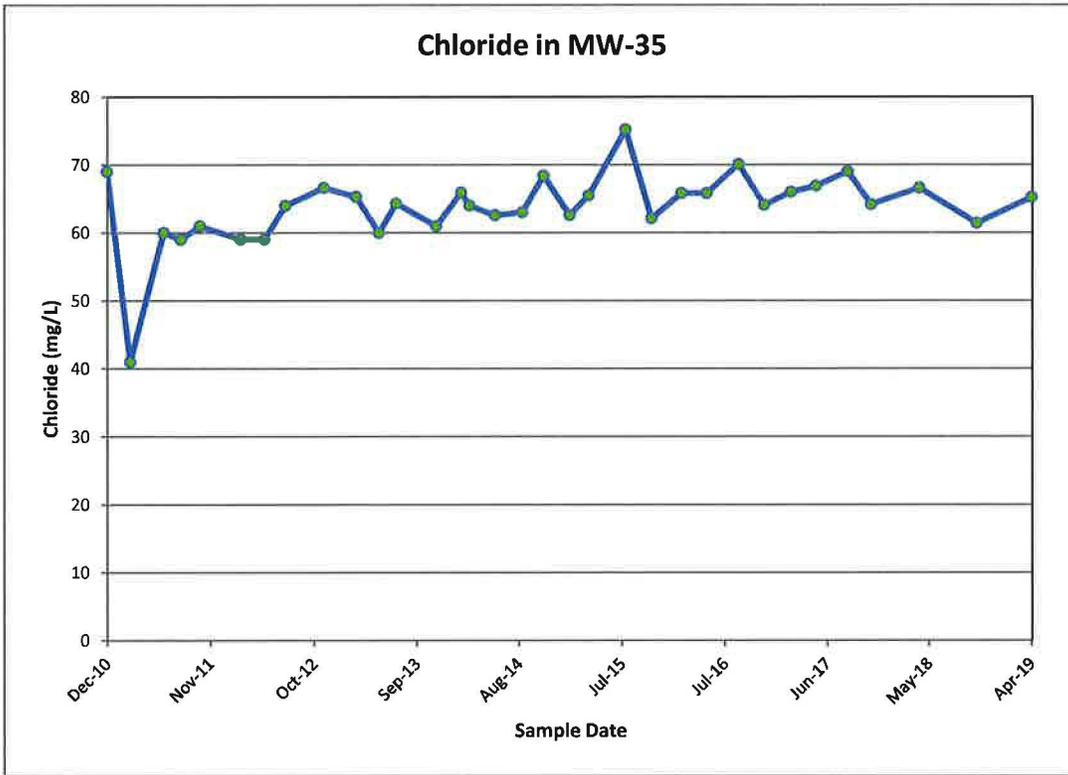
Time concentration plots for MW-32



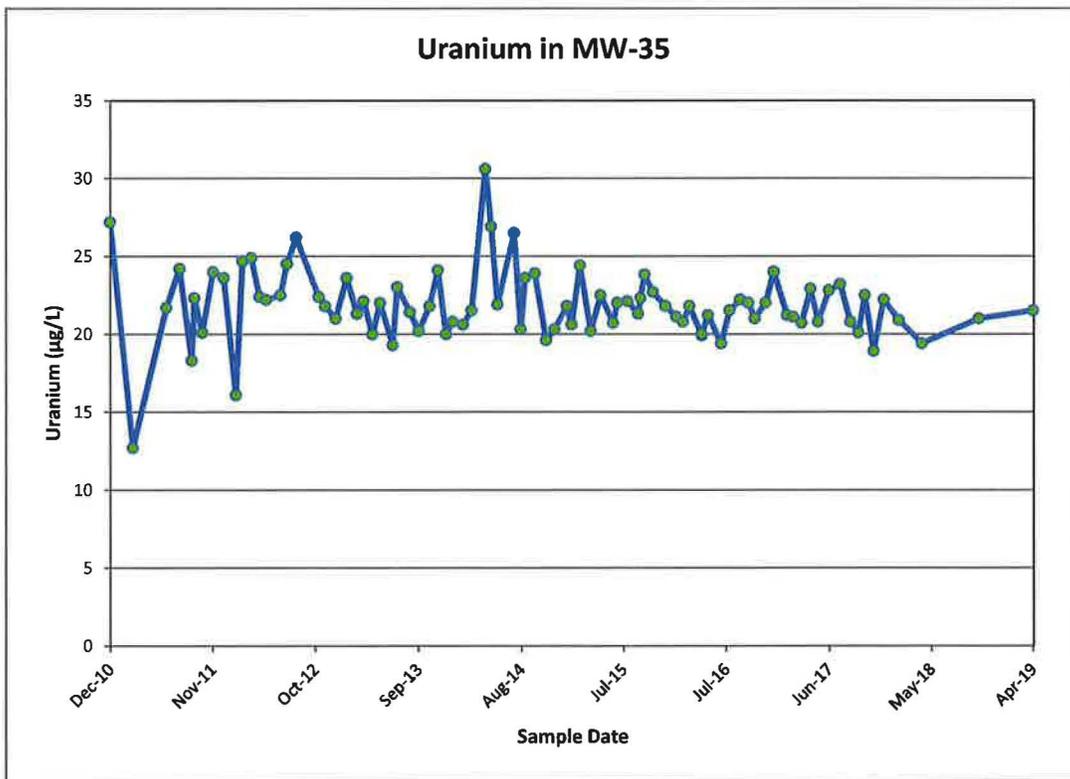
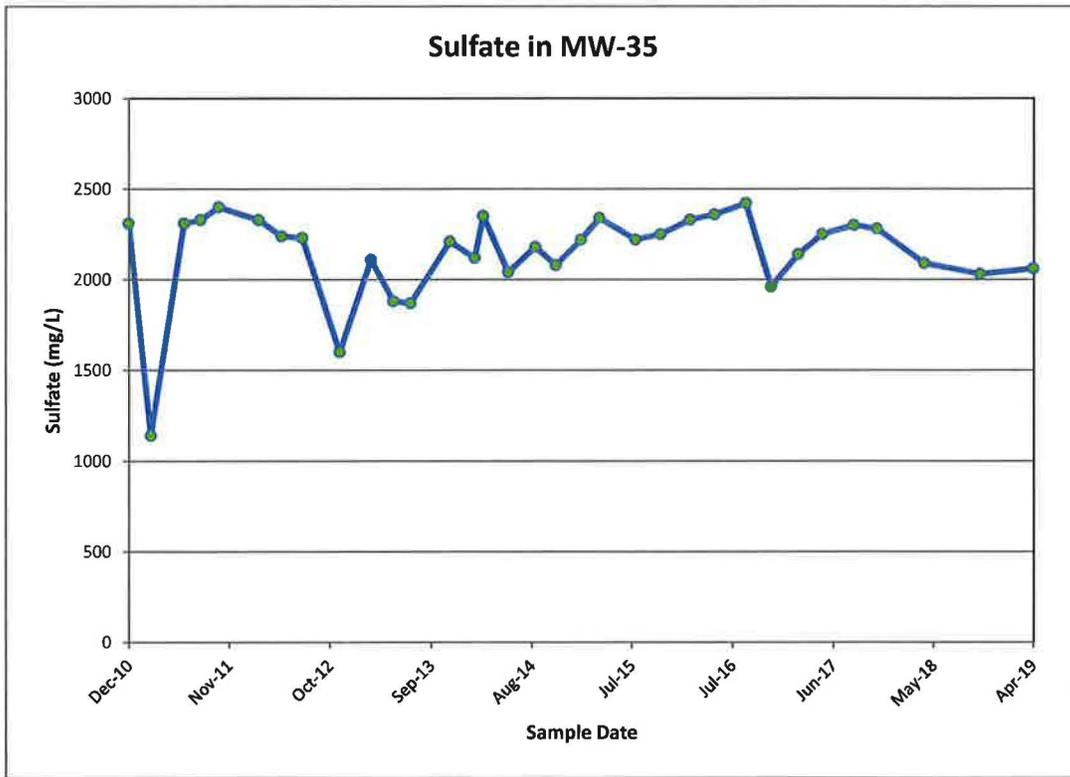
Time concentration plots for MW-32



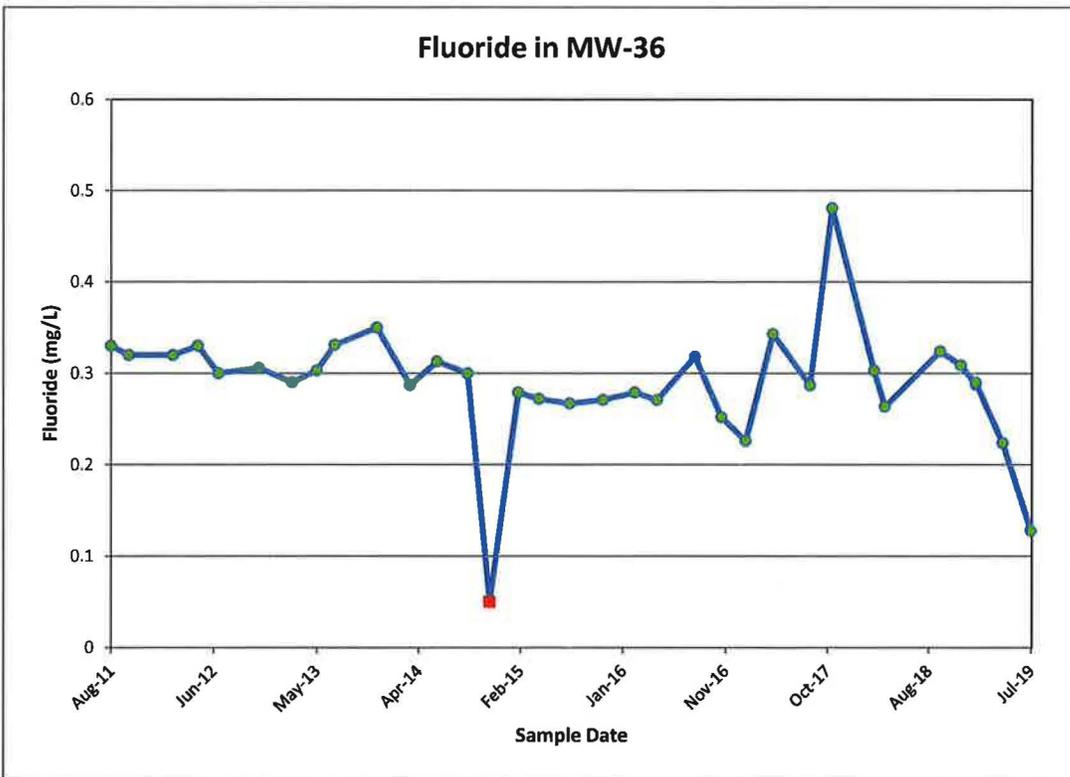
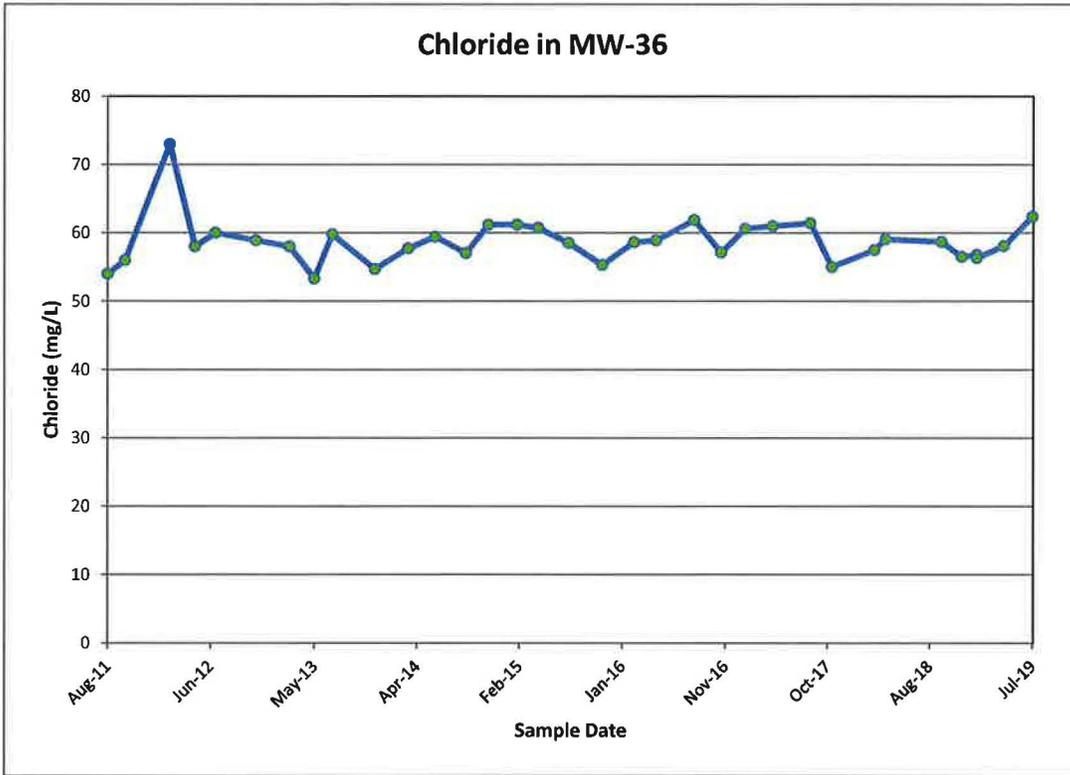
Time concentration plots for MW-35



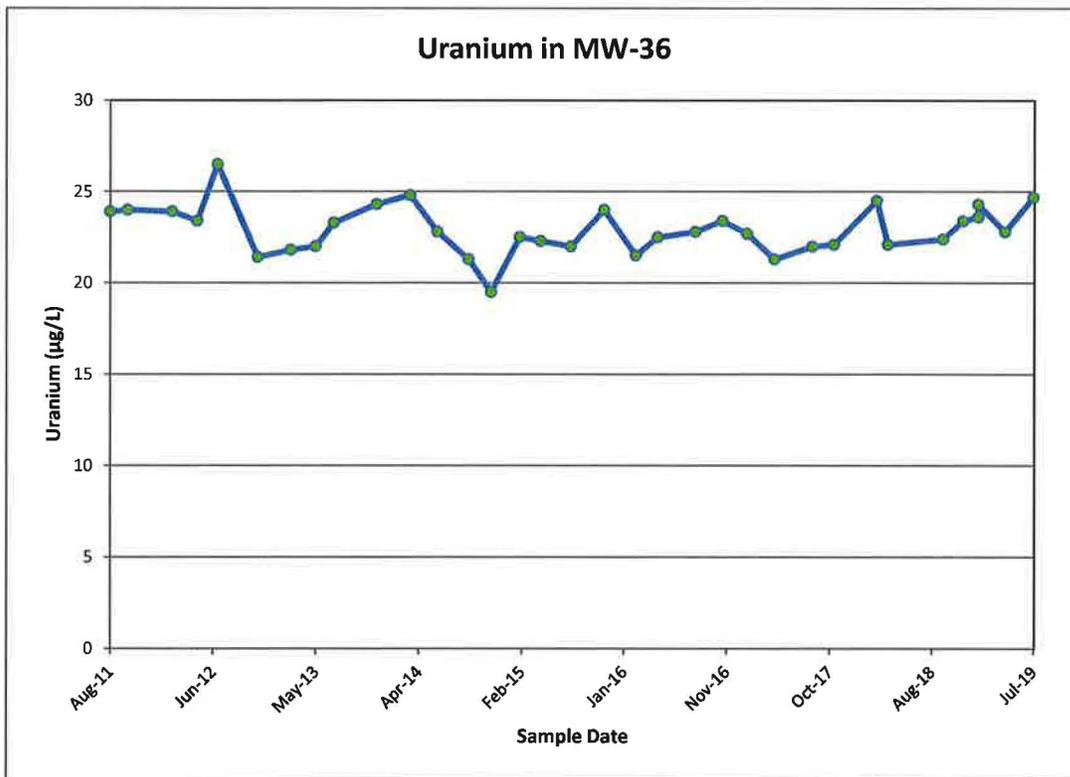
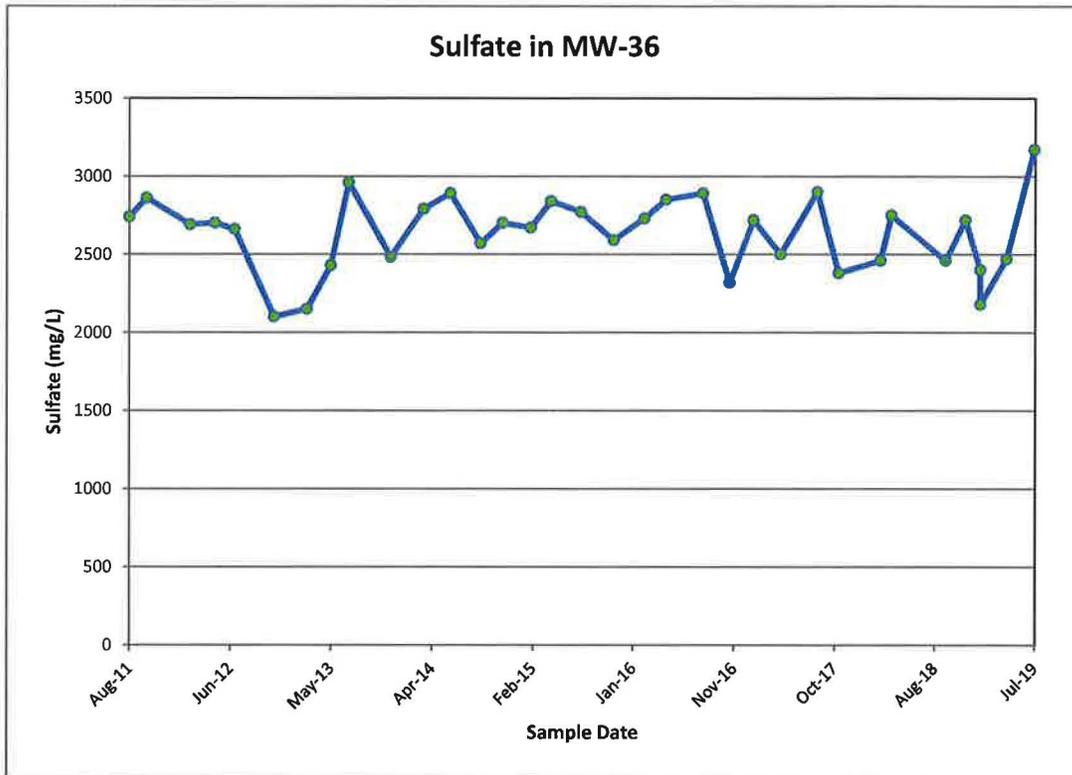
Time concentration plots for MW-35



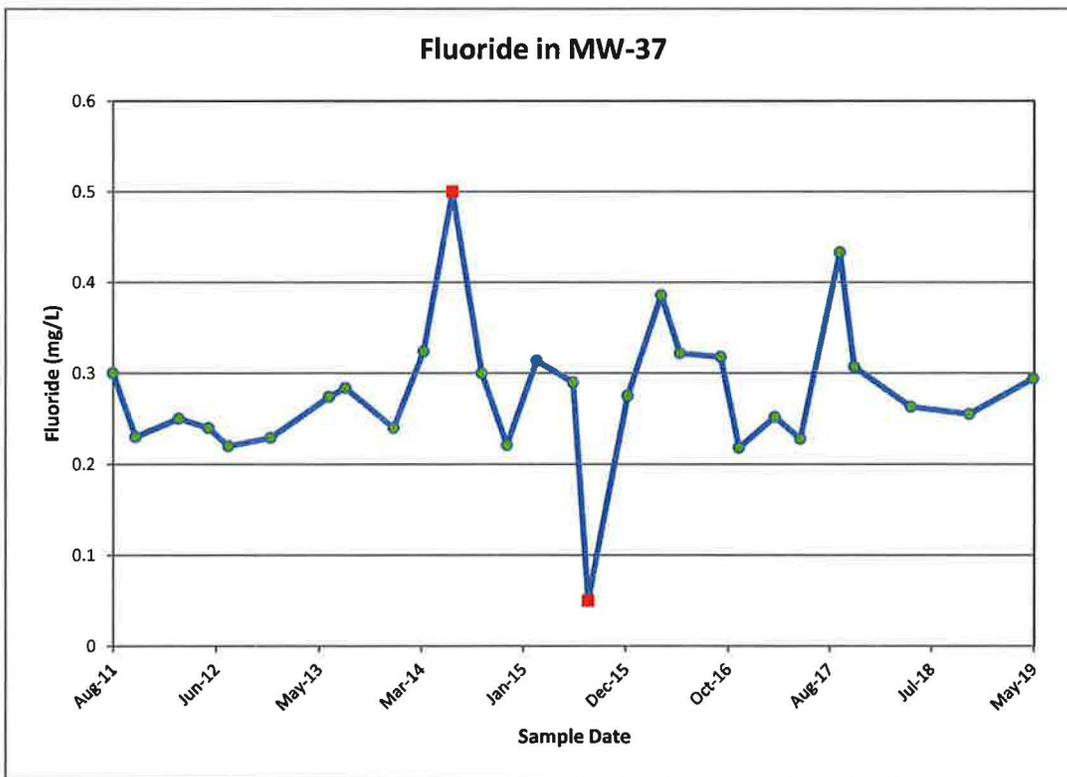
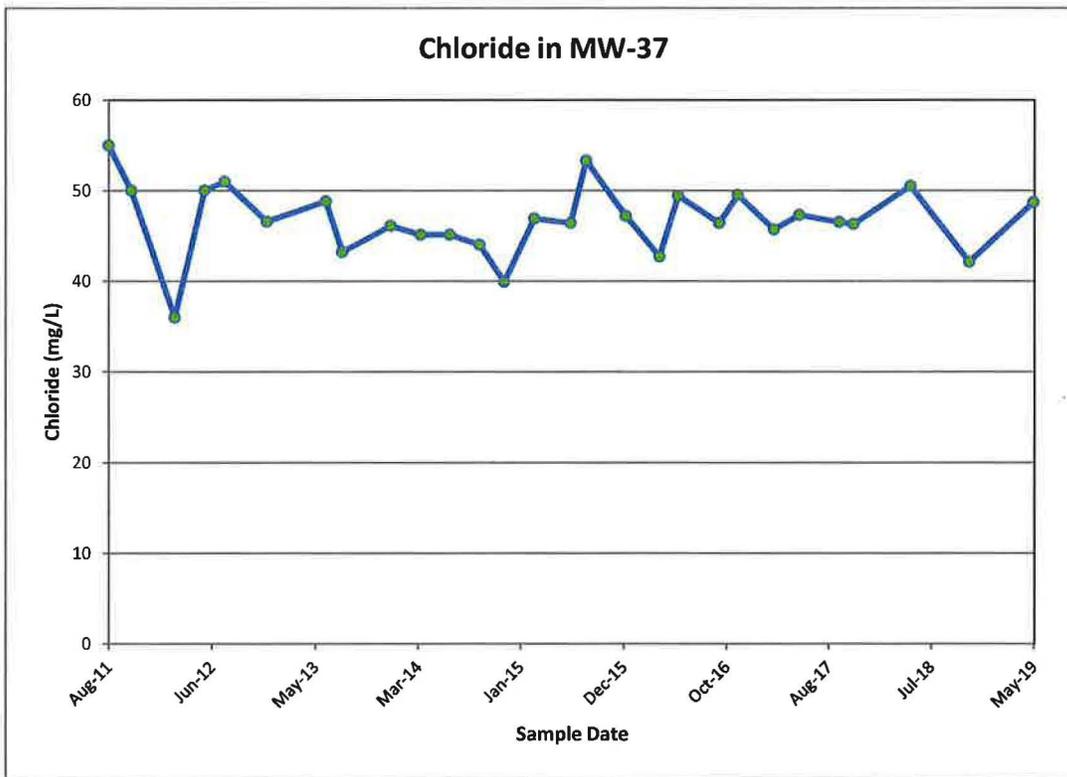
Time concentration plots for MW-36



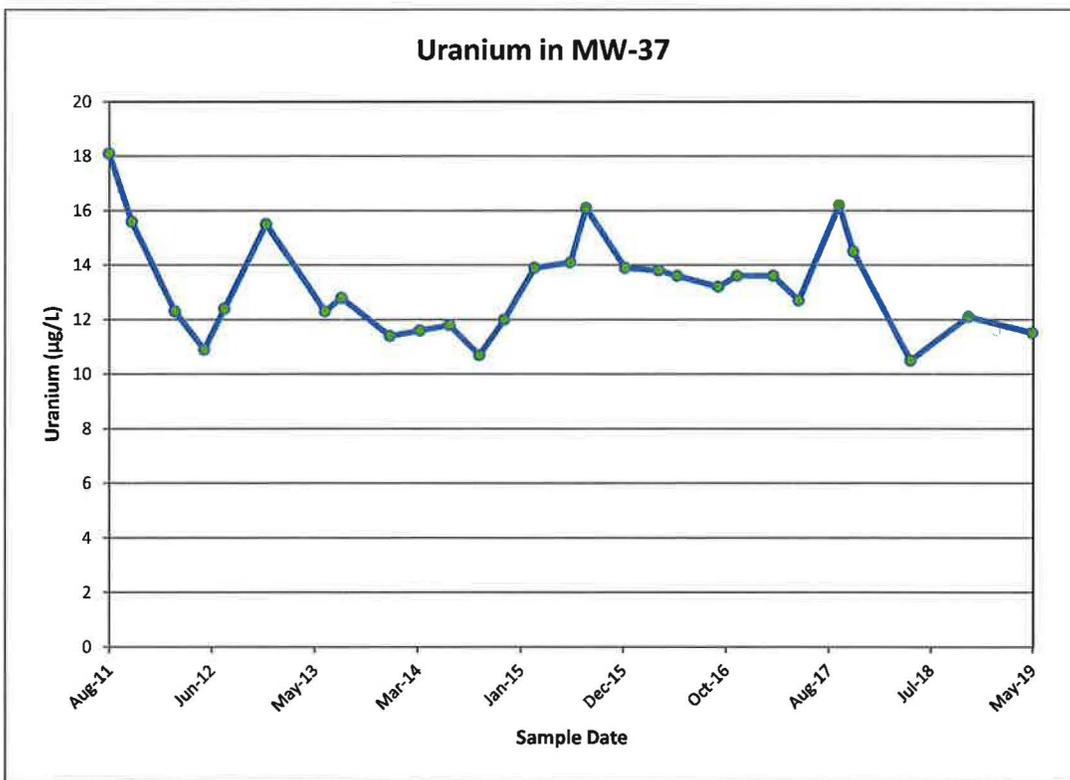
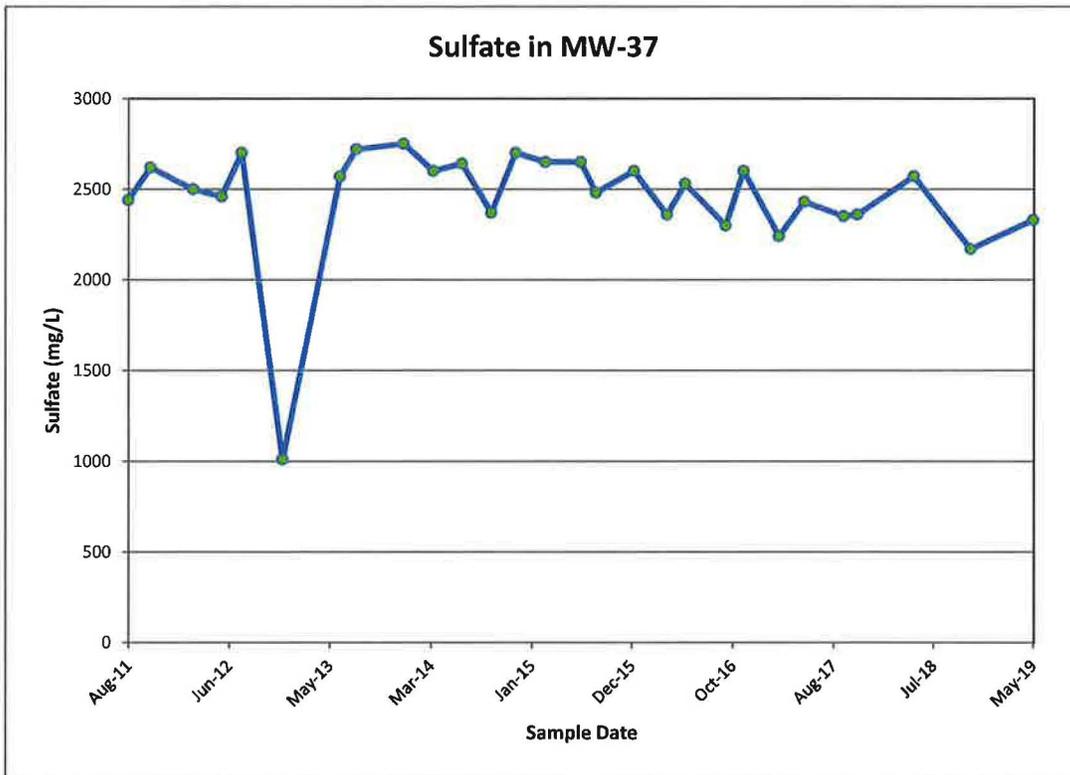
Time concentration plots for MW-36



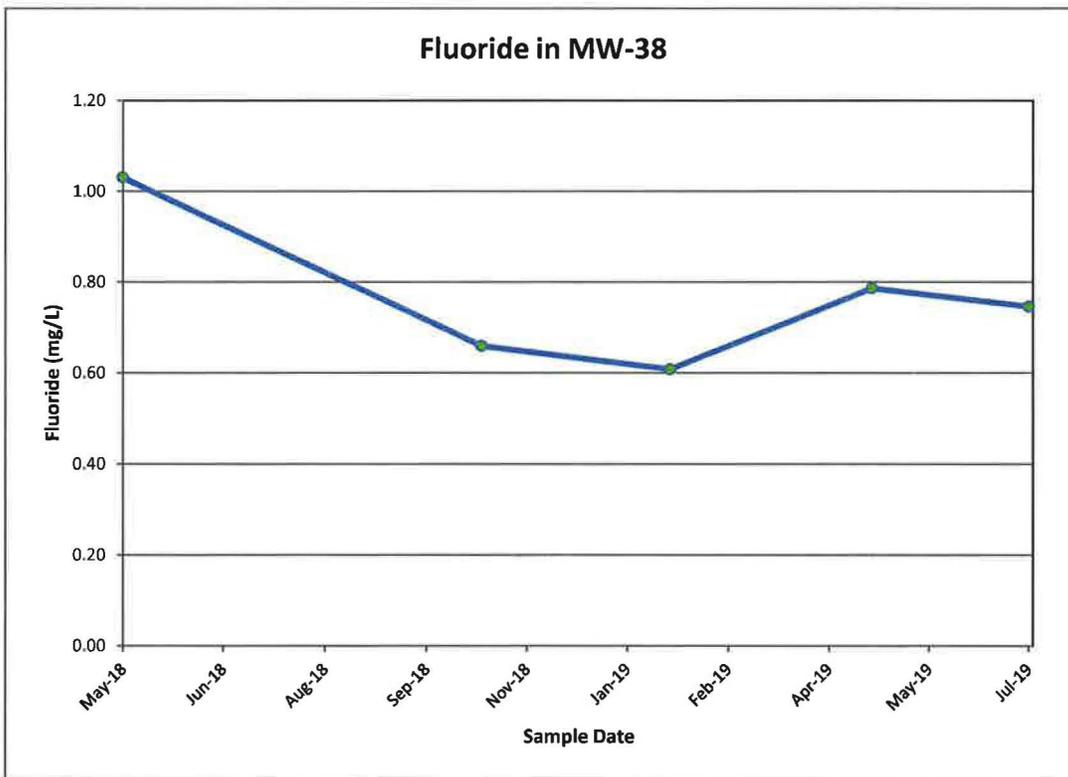
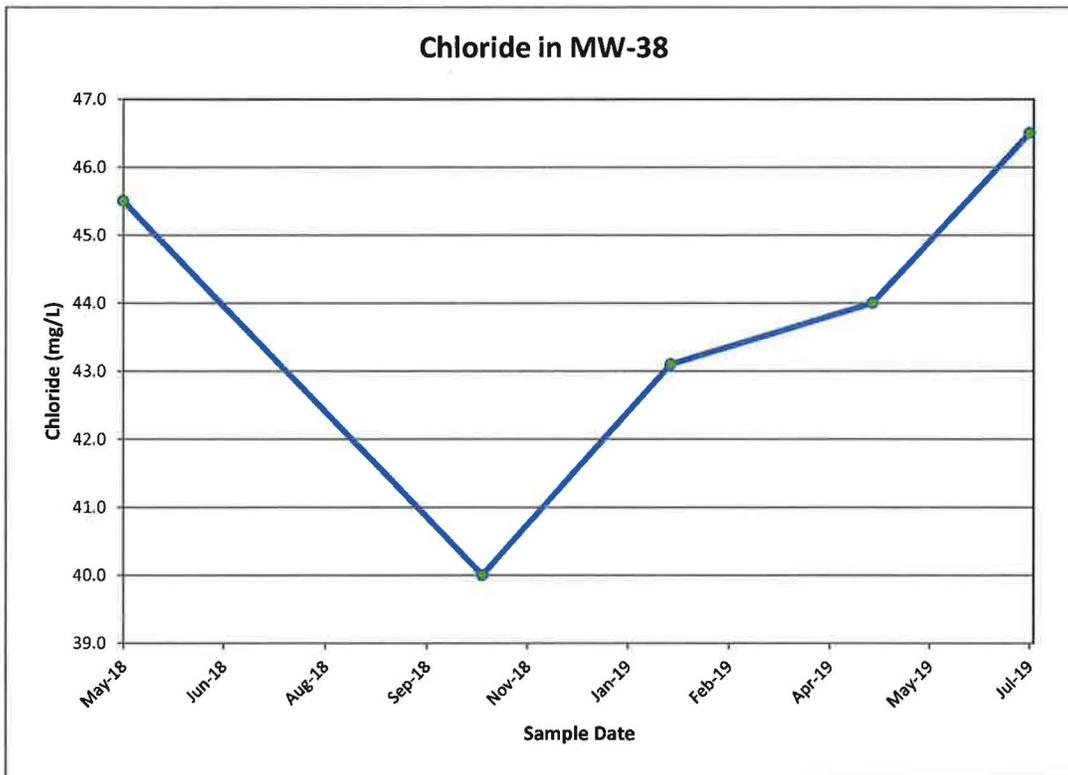
Time concentration plots for MW-37



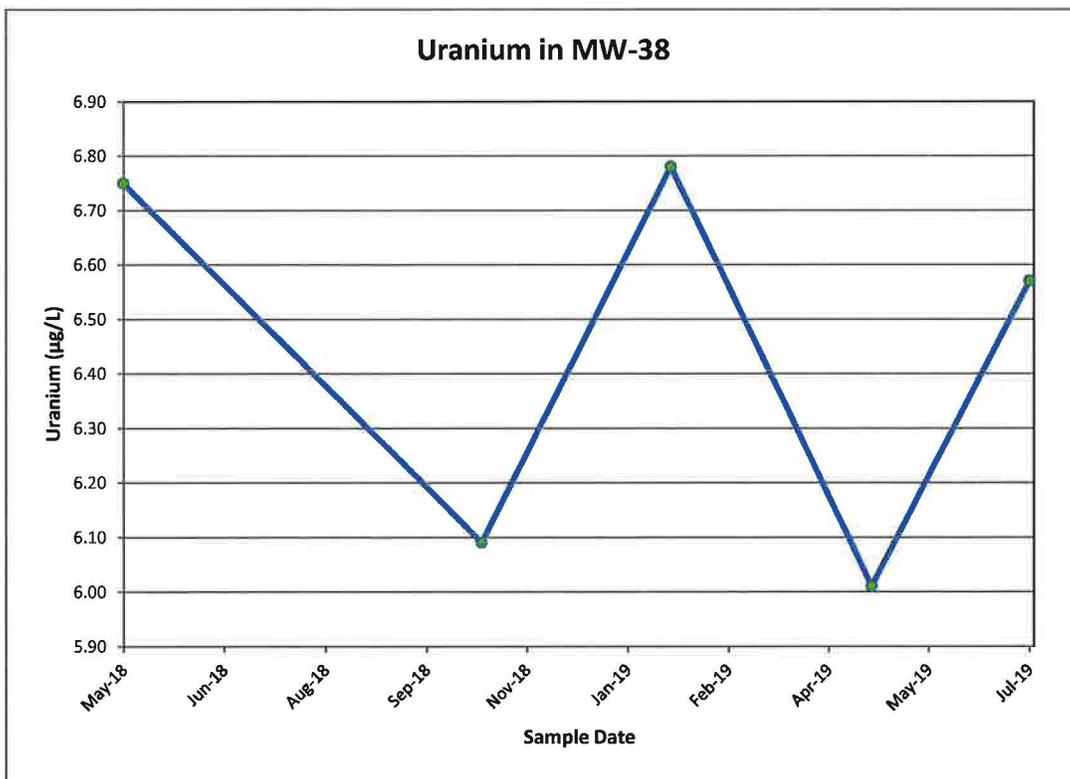
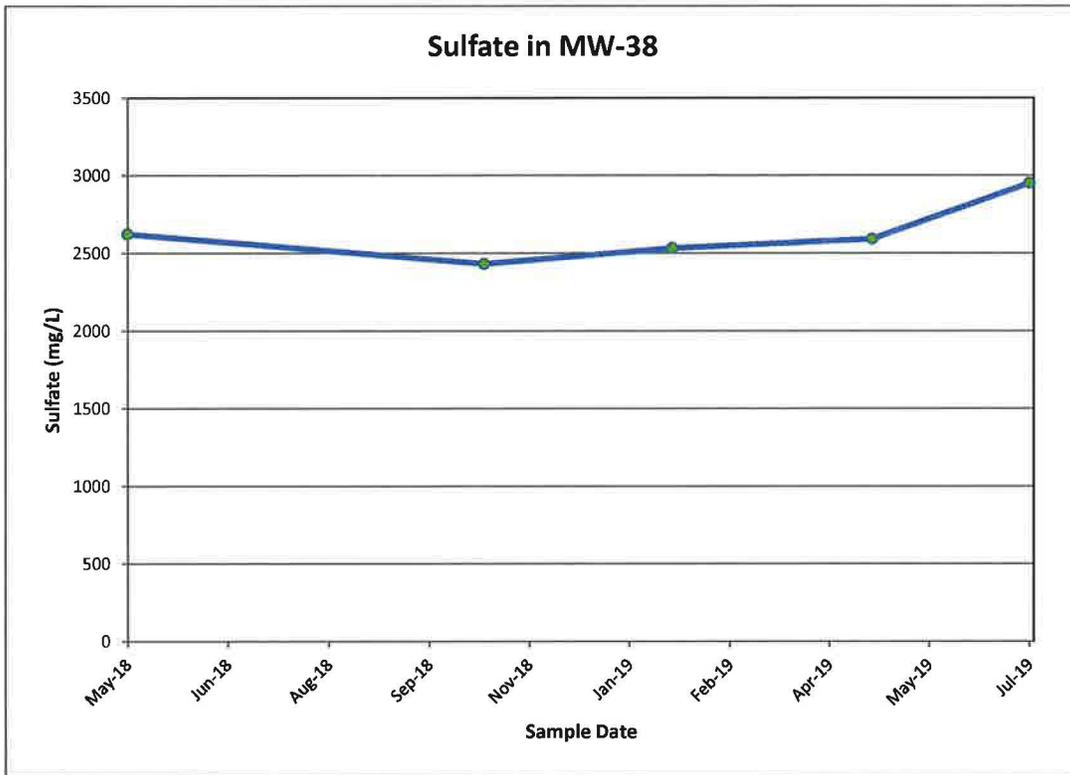
Time concentration plots for MW-37



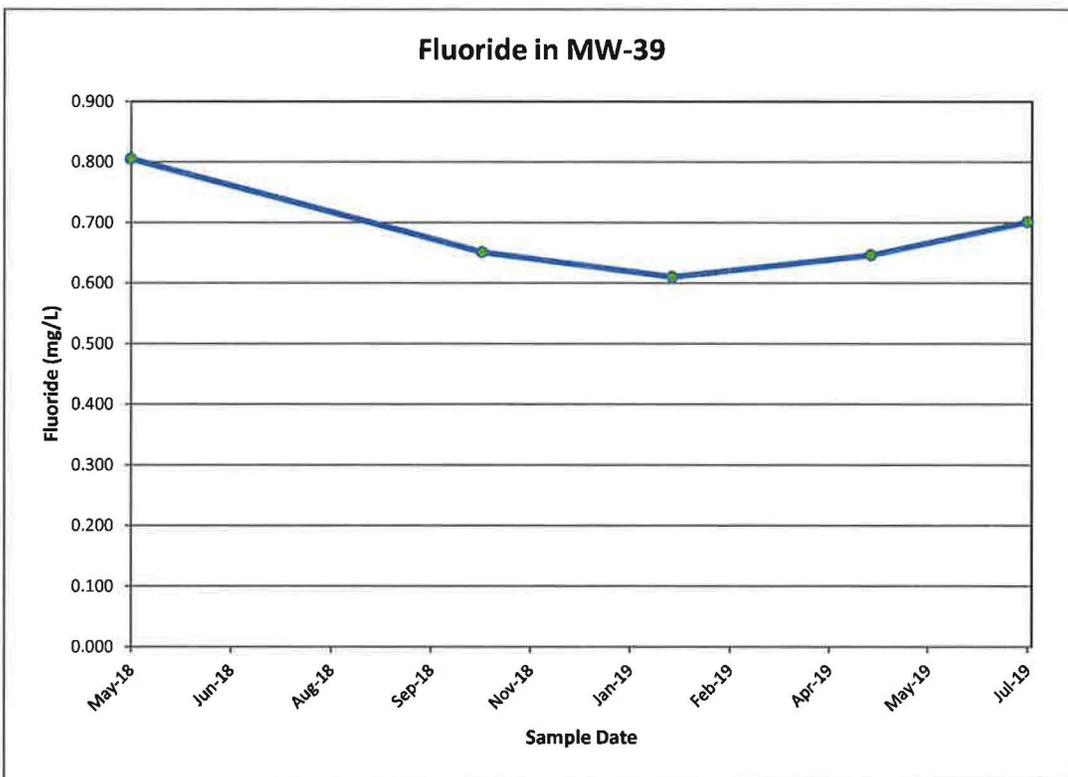
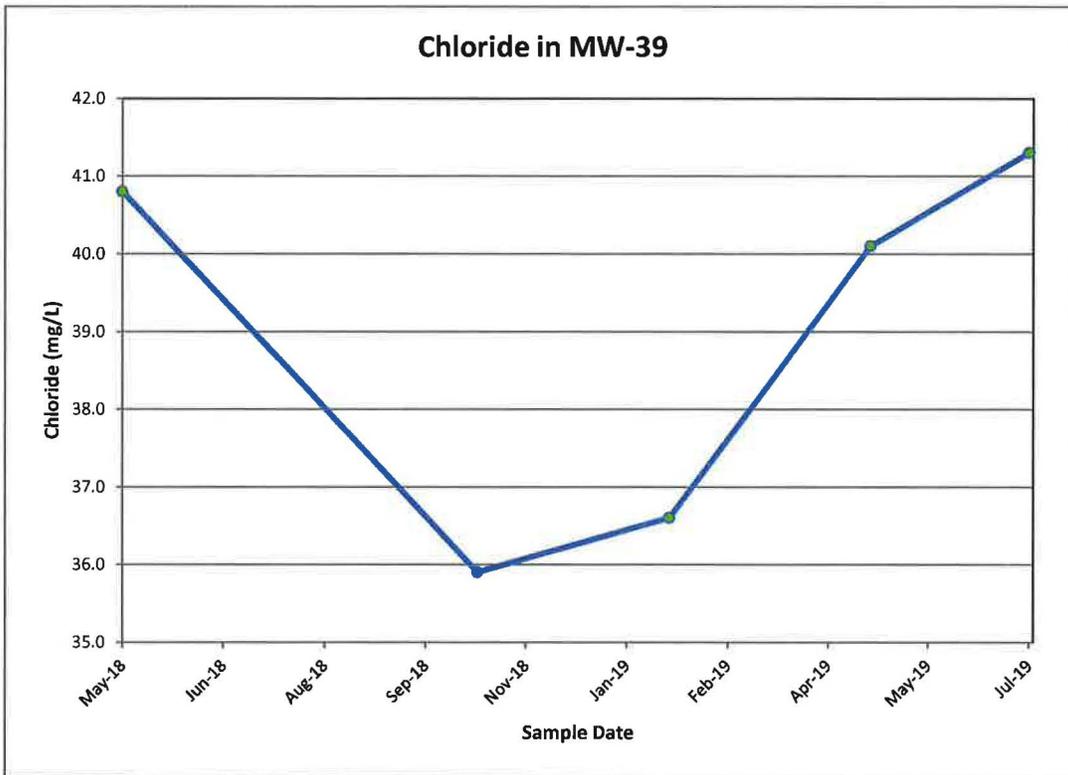
Time concentration plots for MW-38



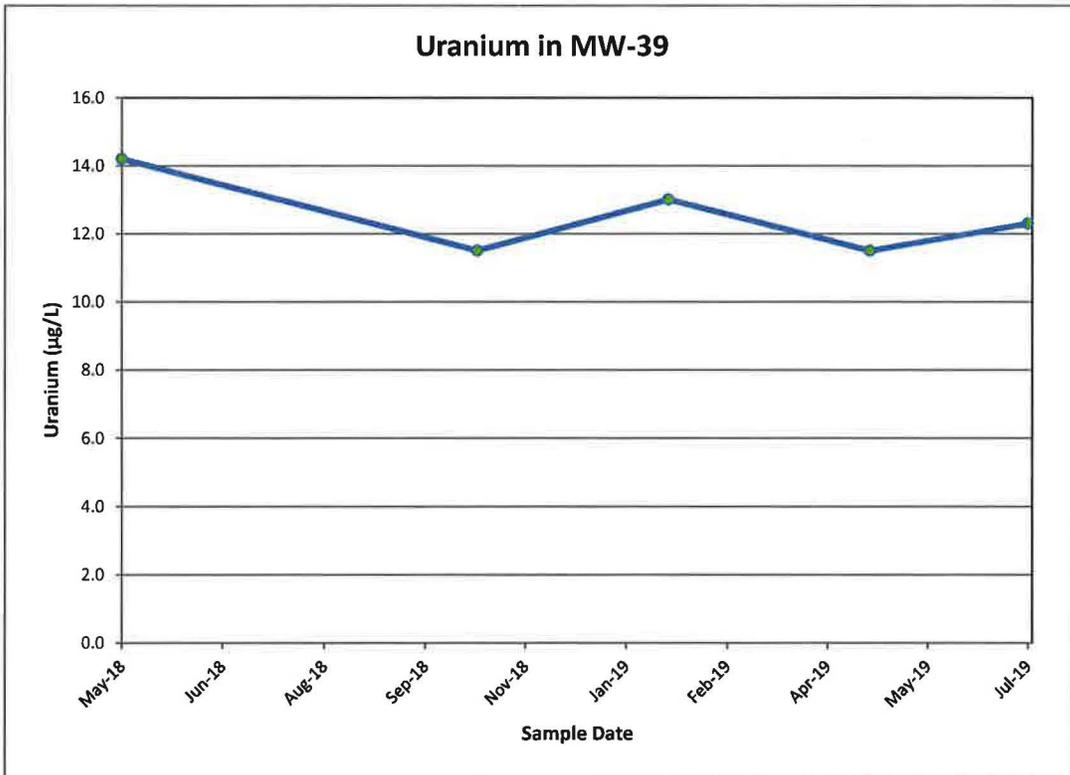
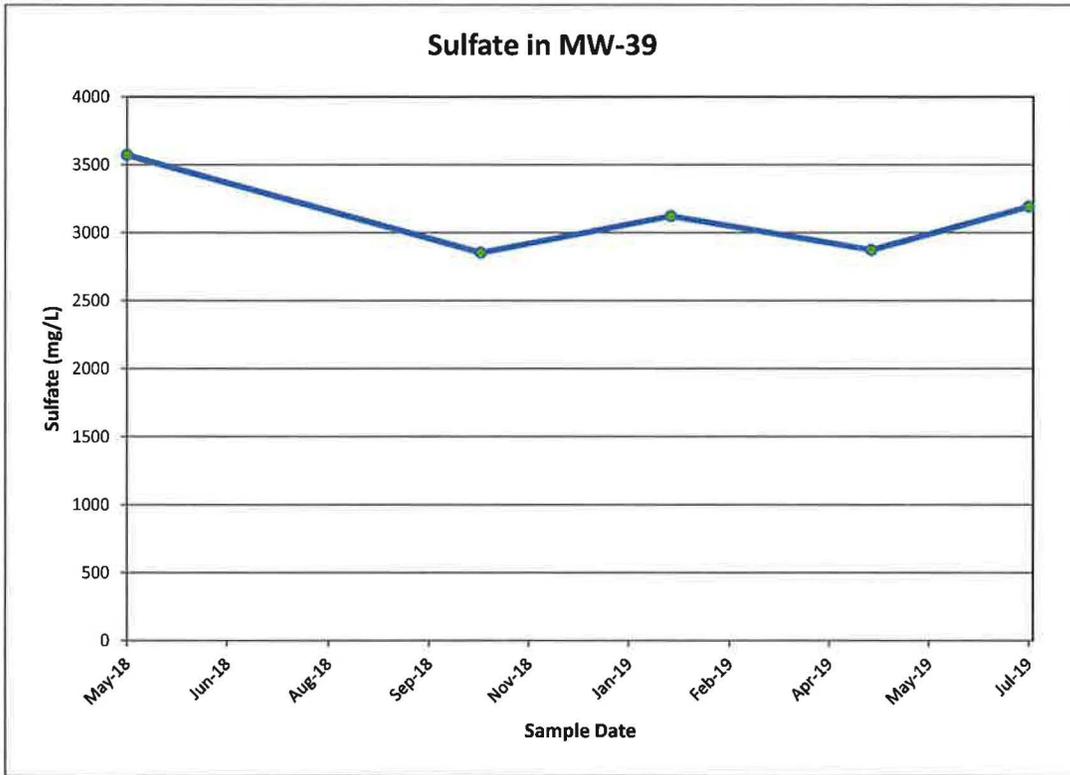
Time concentration plots for MW-38



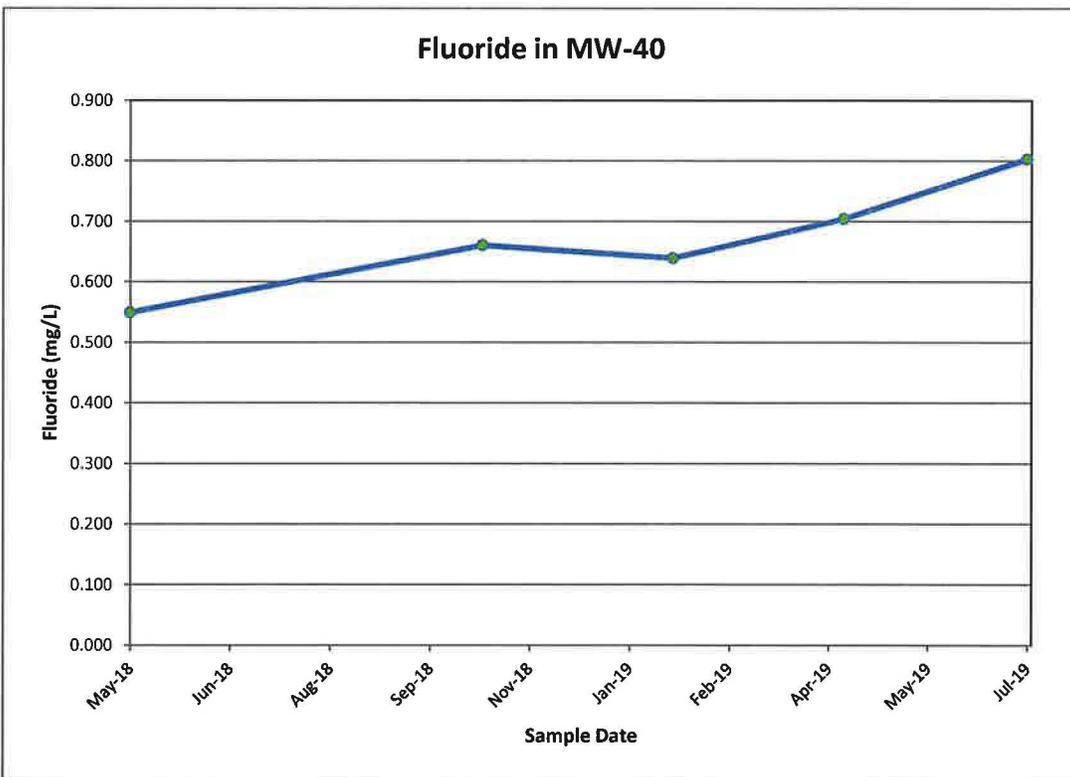
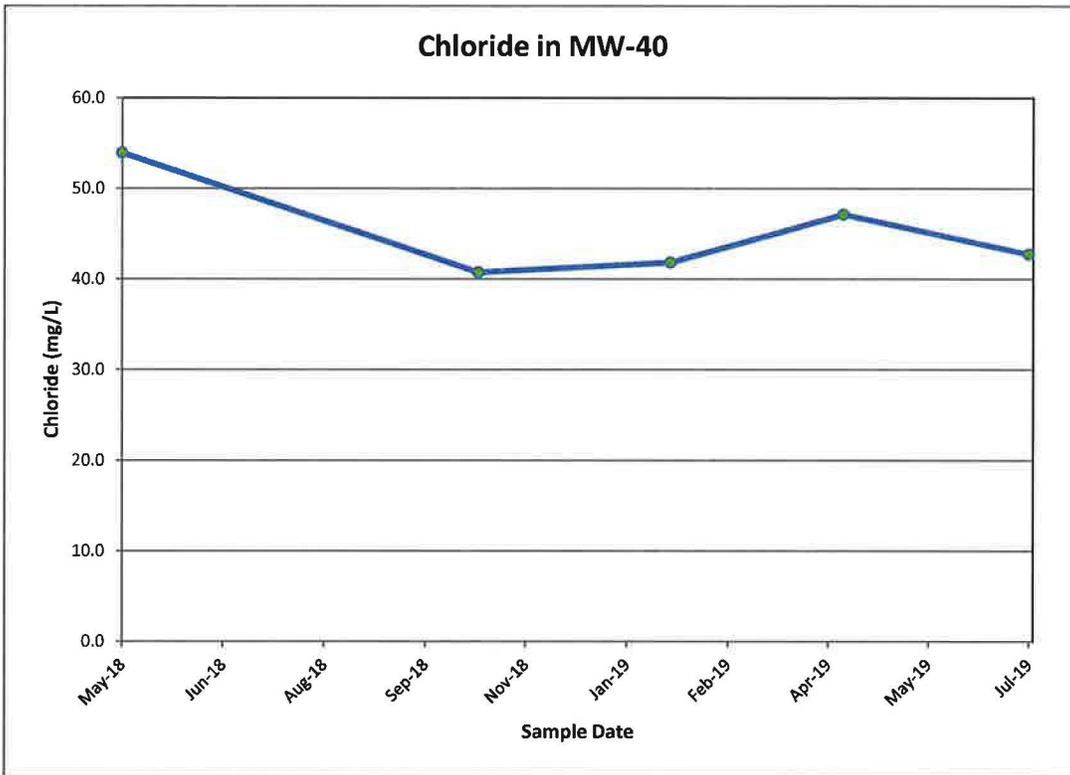
Time concentration plots for MW-39



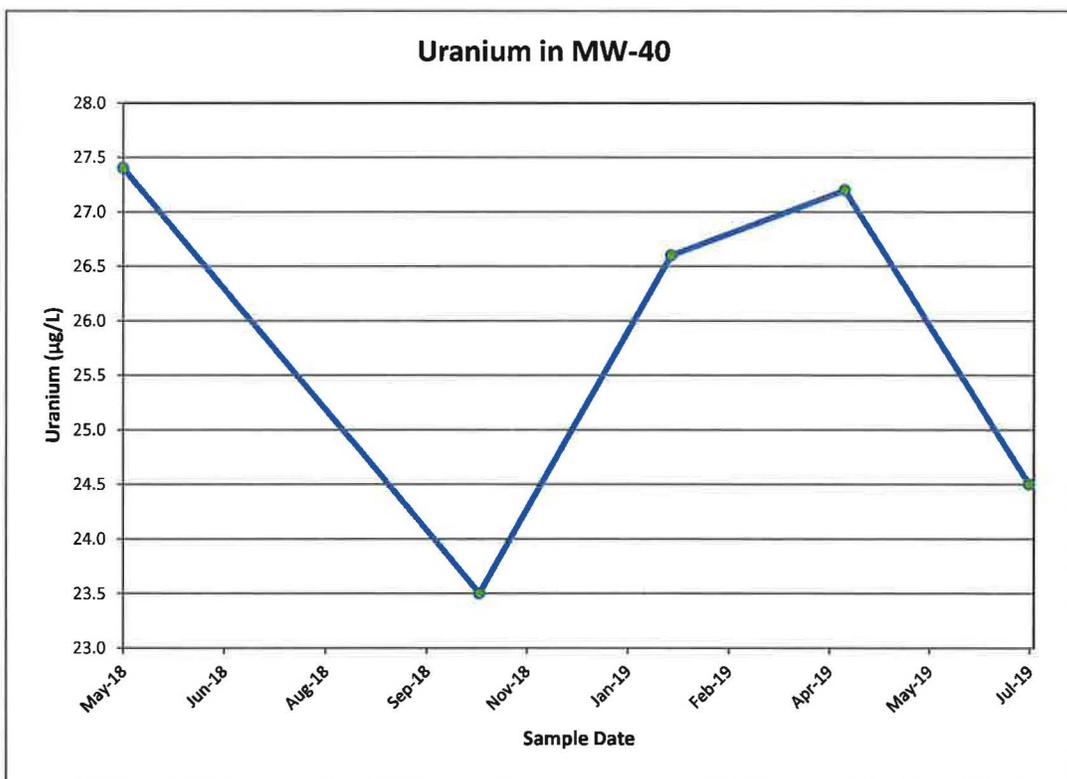
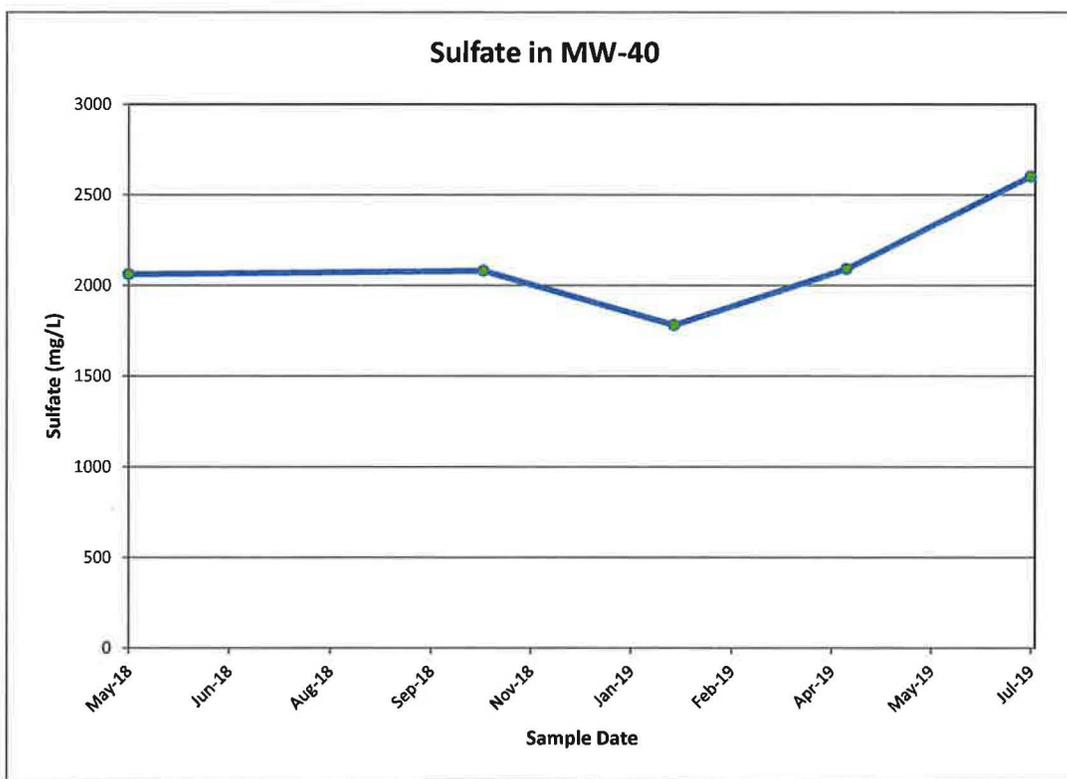
Time concentration plots for MW-39



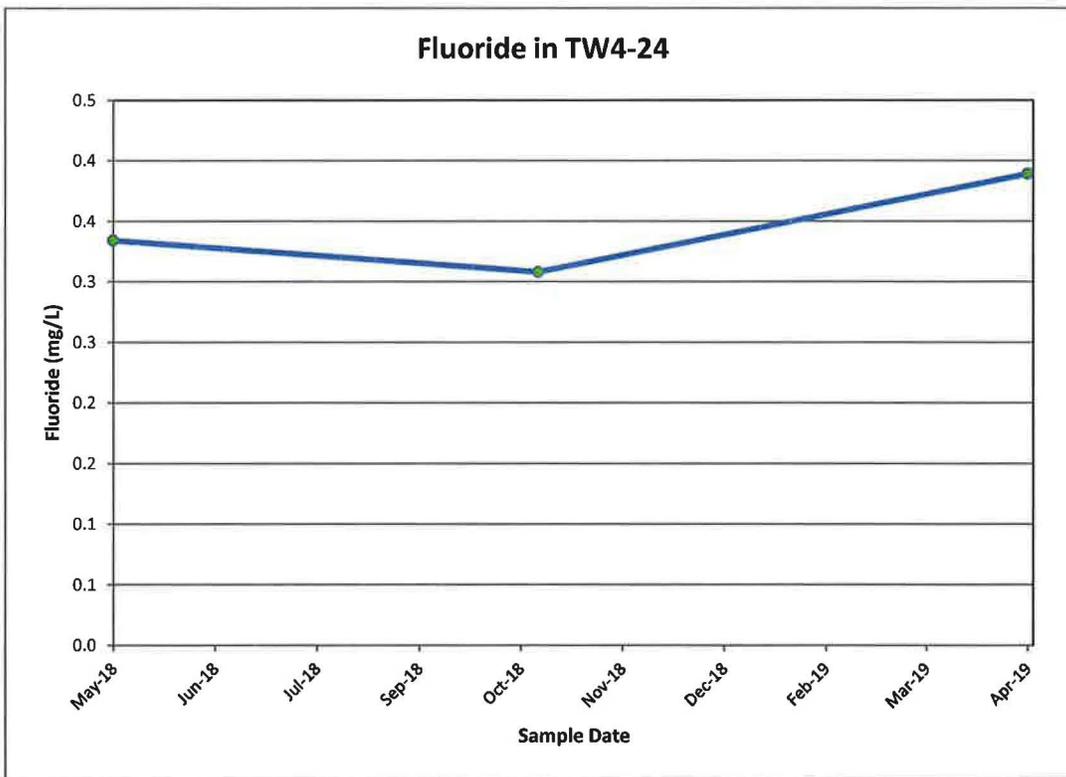
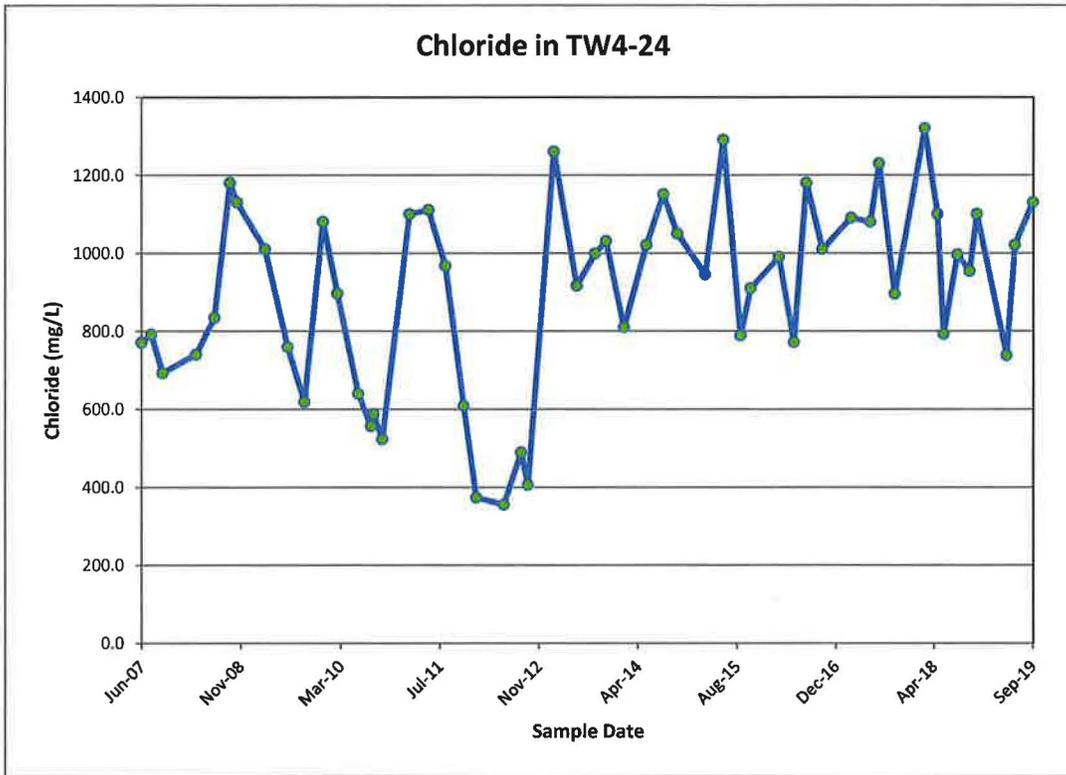
Time concentration plots for MW-40



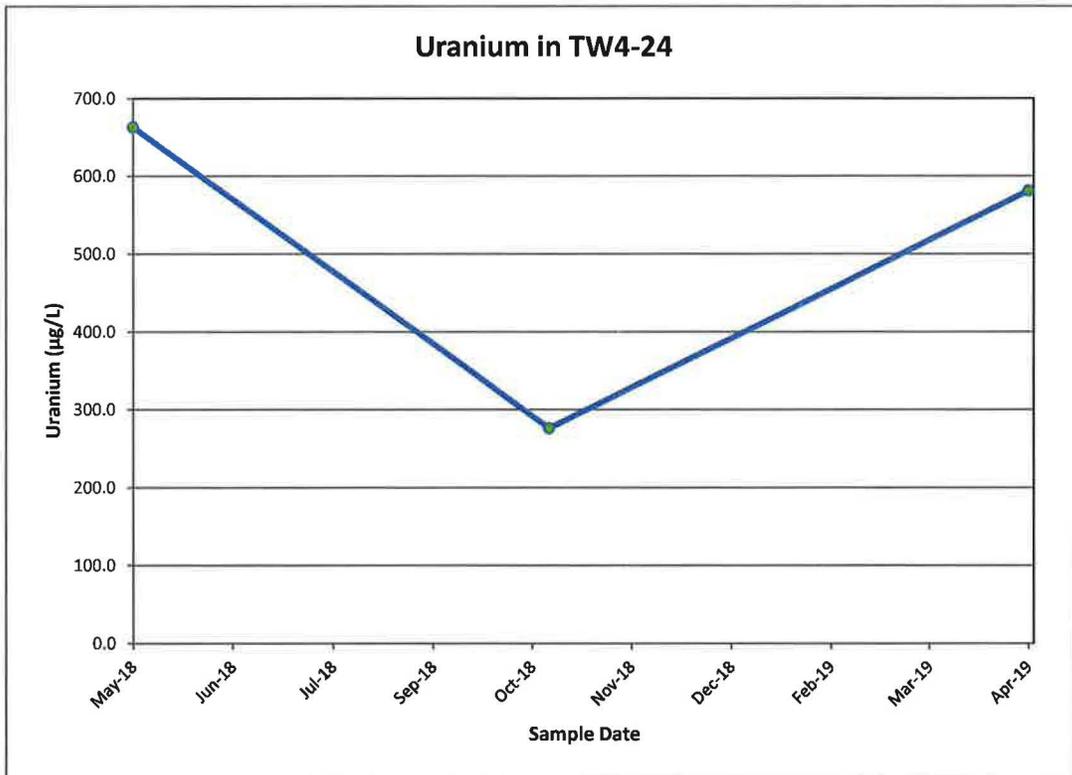
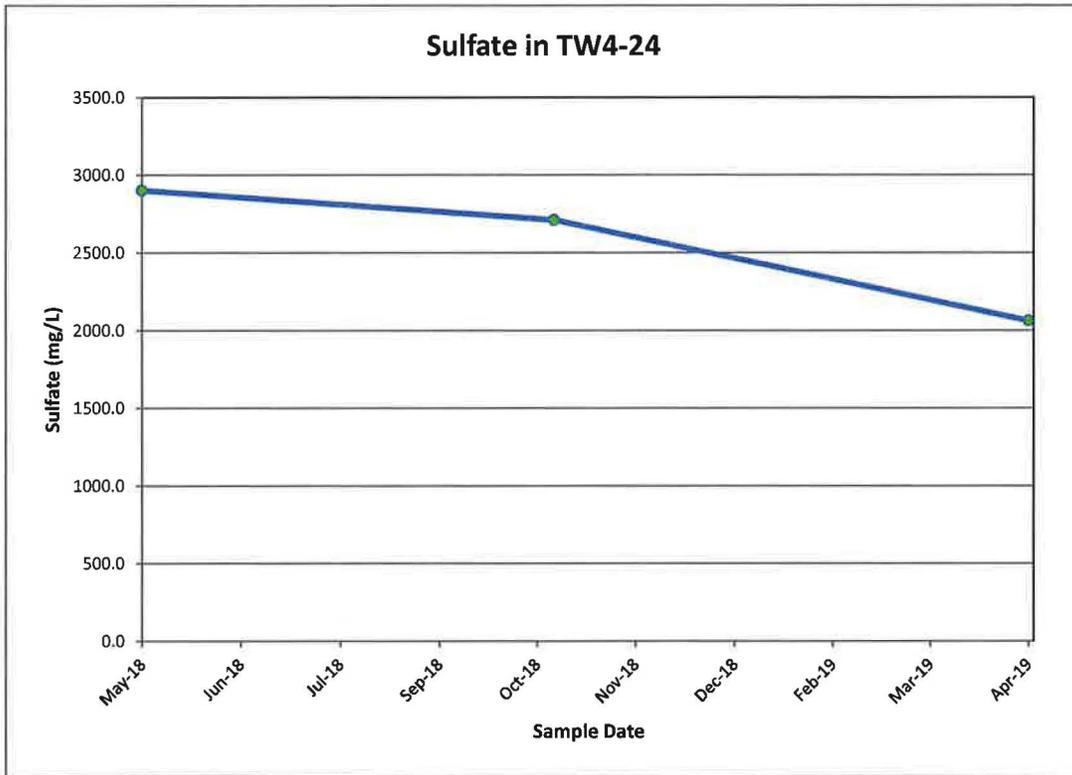
Time concentration plots for MW-40



Time concentration plots for TW4-24



Time concentration plots for TW4-24



Tab J

CSV Transmittal Letter

Kathy Weinel

From: Kathy Weinel
Sent: Wednesday, November 13, 2019 1:31 PM
To: Phillip Goble
Cc: 'Thomas Rushing'; David Frydenlund; Logan Shumway; Scott Bakken; Terry Slade; Paul Goranson
Subject: Transmittal of CSV Files White Mesa Mill 2019 Q3 Groundwater Monitoring
Attachments: DTWS - EIM All Programs.csv; Q3 2019 Analytical.csv; Q3 2019 GW Field Data.csv

Dear Mr. Goble,

Attached to this e-mail is an electronic copy of laboratory results for groundwater monitoring conducted at the White Mesa Mill during the third quarter of 2019, in Comma Separated Value (CSV) format.

Please contact me at 303-389-4134 if you have any questions on this transmittal.

Yours Truly

Kathy Weinel



Energy Fuels Resources (USA) Inc.

Kathy Weinel
Quality Assurance Manager

t: 303.389.4134 | f: 303.389.4125
225 Union Blvd., Suite 600
Lakewood, CO 80228

<http://www.energyfuels.com>

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