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**SITE CHRONOLOGY AND STATUS UPDATE**

**INEX PIT (AP-24)  
INCIDENT NO. NAUTOFAB000275  
UNIT G, SECTION 26, TOWNSHIP 18S, RANGE 26E  
EDDY COUNTY, NEW MEXICO  
32.723633, -104.348046  
RANGER REFERENCE NO. 5375**

Site Chronology and Status Update for Inex Pit is accepted for the record. A meeting with NMOCD is advised to be set up in the future for discussion and a path forward.

**PREPARED FOR:**

**EOG RESOURCES, INC.  
ARTESIA DIVISION  
105 S 4TH STREET  
ARTESIA, NEW MEXICO 88210**

**PREPARED BY:**

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**JULY 20, 2023**

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- Groundwater Dissolved Metals (Table 2 of 2)
- Groundwater TPH and VOC Data Summary
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### ATTACHMENTS

- Attachment 1 – Soil Boring Logs
- Attachment 2 – Current Site Photographs
- Attachment 3 – Laboratory Analytical Reports (2005 – 2022)



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## **1.0 SITE LOCATION AND BACKGROUND**

The Inex Pit (Site) is a historic oil and gas production pit formerly located at the Inex Battery facility, an oil and gas production facility located on private land, approximately 8.68 miles south-southwest of Artesia, within Eddy County, New Mexico. The facility is situated in Unit G, Section 26, T18S-R26E at GPS coordinates 32.723633, -104.348046. The Inex Battery is currently active and is being operated by Silverback Operating II (Silverback). Based on the site history and transaction history, EOG Resources, Inc. (EOG) maintains environmental responsibility for the impacts to native media at the Site.

The Inex Battery was historically operated by H&S Oil Company (H&S) and the associated unlined Inex Pit was formerly utilized by H&S as an oil and gas fluid storage/impoundment facility. In 1997, Yates Petroleum Corporation (Yates) acquired the Inex Battery and pit from H&S. While operated by Yates, the Inex Pit underwent closure and the assessment of the former pit location was initiated. The pit closure and assessment activities completed by Yates documented impacts to the native media. Due to the documented conditions at the Site, coordination with the New Mexico Oil and Gas Division (NMOCD) was initiated. In September 2016, EOG acquired Yates and its associated assets including the Inex Battery and subject Inex Pit.

Communication and coordination between the NMOCD and Yates continued until 2005 when a Stage I & II Abatement Plan was submitted to the NMOCD. Based on available information, no response was ever received from the NMOCD regarding this plan. During the 2005 to 2022 timeframe, a total of 13 groundwater monitoring events were conducted at the Site. In August 2020, additional soil investigation activities were completed at the Site which included the installation and sampling of 15 test excavations.

EOG has engaged Ranger Environmental Services, LLC (Ranger) to assist in the continuation of the assessment and remediation efforts at the Site as well as to re-establish communications with the NMOCD regarding the Site. In May 2023, Ranger personnel established communications with the NMOCD, and began discussion of the Site and the steps needed to bring the Site into compliance with the current regulatory criteria and New Mexico Administrative Code (NMAC).

Based on Ranger's communications with the NMOCD, the following *Site Chronology and Status Update* has been prepared to provide the NMOCD with a summary of the Site history and the cumulative soil and groundwater data so that a regulatory path forward can be established.

A *Topographic Map* and *Area Map* noting the location of the subject Site and surrounding areas are attached. A *Site Map* depicting the pertinent site features is also attached.

## 2.0 SITE CHRONOLOGY (1998 – 2005)

Below is a chronology of the activities undertaken at the Site during the timeframe of 1998 through 2005. The information presented below is derived from the proposals, work plans, and other correspondence available to Ranger. All information presented in this section is available via the NMOCD online imaging portal (<https://ocdimage.emnrd.nm.gov/imaging/>).

### 2.1 Yates Acquisition and Pit Closure (1997 – 2000)

As previously stated, Yates acquired the Inex Battery and subject Inex Pit from H&S in 1997. At the time of the acquisition, the subject pit remained open and was noted to have dimensions of approximately 40 feet by 40 feet and was noted to be of earthen construction with no liner present. Under Yates' direction, an undated "Pit Closure" proposal was submitted to the NMOCD. In June 1998, the NMOCD approved of the proposed closure activities, with conditions of approval that included the vertical delineation of the soil conditions at the Site and directives for sample analysis.

On May 20, 1998, Bioremediation Contractors & Consultants, Inc. (BCC) initiated closure of the pit. The activities completed by BCC included the removal of bird netting, debris, and fluids within the pit location. The pit was then ripped, tilled, sprayed with a BCC microbial product, treated with nutrients, and was then managed to assist in the bioremedial process. Soil samples were collected in September 1999 and January 2000 and the pit was subsequently backfilled.

In February 2000, a BCC closure report/request was submitted to the NMOCD. In August 2000, the NMOCD denied the closure request citing lack of pertinent closure details, inadequate soil sampling, and lack of soil chloride analyses.

### 2.2 Additional Assessment Activities and Stage I & II Abatement Plans (2000 – 2005)

In October 2000, Yates contracted Environmental Technology Group, Inc. (ETGI) to perform additional soil delineation activities at the Site. On October 19, 2000, ETGI and a drilling subcontractor installed three soil borings at the Site (SB's 1-3) and collected multiple soil samples and a groundwater sample (from boring SB-1) for laboratory analysis. Elevated total petroleum hydrocarbon (TPH) concentrations were documented to be present in the soil boring SB-1 soils. Elevated soil chloride concentrations were documented to be present in all three soil borings.

The soil boring SB-1 groundwater sample was noted to contain elevated benzene and chloride concentrations. However, since this was an open soil boring subject to sloughing effects from overlying soils, these results may or may not have been representative of the actual groundwater quality.

The findings of the October 2000 site assessment activities were documented in the ETGI-prepared *Preliminary Site Investigation Report* dated November 2000. In December 2000, Yates submitted the ETGI report and previous BCC report to the NMOCD and petitioned for closure of the Site. On March 7, 2001, the NMOCD denied site closure due to the fact that the groundwater underlying the site appeared to have been impacted by benzene and chloride in excess of the New Mexico Water Quality Commission (WQCC) standards. The NMOCD directed that an abatement plan for the site be prepared and submitted to the NMOCD.

In July 2001, a *Stage 1 Abatement Plan Proposal* prepared by Harding ESE (Harding) was submitted to the NMOCD. The proposal included provisions for the installation and sampling of

three soil borings and the conversion of the soil borings into permanent monitor wells to allow for the collection of representative groundwater samples for laboratory analysis. On September 25, 2001, the NMOCD responded to the proposal with the statement that the plans were “*administratively complete*” and that prior to the NMOCD review of the proposed activities public notification was to be completed.

On October 19, 2001, Yates submitted documentation of the required public notification to the NMOCD with the request that the Harding-prepared *Stage 1 Abatement Plan Proposal* be reviewed. On February 1, 2002, the NMOCD granted approval of the proposed activities with conditions of approval including the requirement that a Stage I Investigation report be submitted to the NMOCD by April 1, 2002. Due to various reasons, including the transfer of the project from Harding back to ETGI, multiple project timeline extension requests were submitted and approved by the NMOCD.

A June 2003 ETGI-prepared *Preliminary Site Investigation Report*, documenting the installation and sampling of four monitor wells, was subsequently submitted to the NMOCD. The information provided in the report confirmed that impacts to soil and groundwater were present at the Site. Elevated soil chloride concentrations were documented in the monitor well MW-1, MW-3 and MW-4 soils. Elevated soil TPH and BTEX concentrations were also documented in the MW-4 soils. Monitor well MW-4 had been installed within the footprint of the former pit location. Groundwater samples collected from the monitor wells documented the presence of elevated chloride, sulfate and total dissolved solids (TDS) concentrations at the Site.

Based on the information presented in the June 2003 ETGI report, the NMOCD issued a response dated October 6, 2004. The NMOCD response stated that the extent of the groundwater impacts at the Site had not been delineated, and requested that a groundwater delineation work plan be submitted by December 31, 2004. Prior to the submittal of the NMOCD-directed plan, ETGI was replaced by Safety & Environmental Solutions, Inc. (SESI) who had been retained by Yates to conduct the further site investigative activities. During the transfer of the project from ETGI to SESI, a 45-day extension request was submitted and approved by the NMOCD to allow for the project transition.

In February 2005, an SESI-prepared *Amended Stage 1 Abatement Plan Proposal*, dated February 15, 2005, was submitted to the NMOCD. The amended plan included SESI’s review of the previously collected Site data and conditions and proposed additional site investigation activities. The proposed site activities included the resurveying of the existing monitor wells and the installation of monitor wells both upgradient and downgradient of the historic pit location. The plan also proposed the plugging of monitor well MW-4 located within the footprint of the historic pit. SESI detailed the difference in water levels in MW-4 as compared to the other three monitor wells, and the concern that the well was acting as a pathway for the vertical migration of contaminants. SESI also raised the possibility of an outside source of contamination affecting monitor well MW-3. The cover letter submitted with the plan stated that while the plan was under review groundwater monitoring activities would be conducted on a quarterly basis.

On July 18, 2005, the NMOCD responded to SESI’s *Amended Stage 1 Abatement Plan Proposal* and denied the proposed activities. The NMOCD response cited a lack of adequate characterization of the impacts at the Site, and insufficient proposed delineation locations. The NMOCD did not concur with SESI’s speculation regarding a possible additional contaminant source at the site, and denied SESI’s request to plug monitor well MW-4. The NMOCD requested submittal of a revised Stage 1 Abatement Plan by August 19, 2005.



As requested by the NMOCD, an *Amended Stage 1 Abatement Plan Proposal*, prepared by SESI and dated August 19, 2005, was subsequently submitted to the NMOCD. The updated plan revisited the information presented in the February 15, 2005 version and proposed additional site activities to address the NMOCD concerns and requests. The plan proposed four soil borings, with the possibility for additional borings, to be installed within the former pit area to assist in the characterization/delineation of the soil impacts. The plan also included provisions for the installation of a minimum of two additional monitor wells. SESI revisited the possibility of an alternative source of contamination at the Site (other than the former pit) and included basic details of potential additional monitor wells which they believed might assist in further evaluating this possibility. Additional proposed activities included the determination of hydraulic conductivity and transmissivity via groundwater slug tests and the continued monitoring and sampling of the Site monitor wells.

Based on available information, it does not appear that the NMOCD ever replied to SESI's August 19, 2005 *Amended Stage 1 Abatement Plan Proposal*. The final correspondence available via the NMOCD online resources is noted to be a cover letter that appears to have been submitted with the August 19, 2005 amended plan. EOG also conducted an internal review of the project files transferred to them by Yates and an NMOCD response to the August 19, 2005 plan was not discovered.

### **3.0 GROUNDWATER MONITORING AND SITE ASSESSMENT (2005-PRESENT)**

#### **3.1 Groundwater Monitoring**

Between 2005 and 2022, a total of 13 groundwater monitoring events were conducted at the Site. The site monitoring wells were gauged and sampled during each event. Ranger has compiled and attached cumulative tables of the Site well gauging and groundwater analytical data. As presented in the attached tables, and as summarized below, no light nonaqueous phase liquid (LNAPL) has been detected in the site monitoring wells to date; however, exceedances of the New Mexico WQCC standards have been documented in the groundwater. The groundwater analytical data has primarily documented the presence of elevated chloride, sulfate and TDS concentrations, as well as less frequent detections of other elevated constituents of concern. Below is a brief summary of the groundwater monitoring results to date.

#### Well Gauging

As summarized above, no LNAPL has been documented to be present in the site monitoring wells. The depth to groundwater in the site monitoring wells has been documented to range from a minimum of approximately 40.59' below ground surface (bgs) in MW-4 to a maximum of approximately 51.41' bgs in MW-3. As illustrated on the attached groundwater gradient maps (which include the MW-4 well gauging data), the site groundwater gradient and flow direction has been documented to be variable with gradients ranging from approximately 0.001 – 0.03 ft/ft and groundwater flow directions primarily to the southeast, south and southwest, or in a radial direction away from monitor well MW-4. On approximately 25 percent of the gauging dates, the flow was documented to be in a general northwesterly direction.

Ranger notes that the elevated MW-4 groundwater levels (and the associated radial groundwater flow away from MW-4 as illustrated on a number of the attached groundwater gradient maps such as the 12-15-2004 map and the 03-06-2018 map), are anomalous compared to the groundwater levels in the other site monitoring wells. This issue was discussed in prior site reports including

the August 2005 *Amended Stage 1 Abatement Plan*. The cause of the anomalous water levels in MW-4 is unknown but could potentially be due to factors such as well completion, groundwater mounding beneath the pit area, survey error, etc. Due to the anomalous MW-4 water levels, Ranger also prepared and attached additional gradient maps for four of the gauging dates which do not incorporate the monitor well MW-4 gauging data. As illustrated on these maps, the site groundwater gradient and flow direction outside of the former pit area was documented to range from approximately 0.01 to 0.001 ft/ft predominantly to the south-southeast. However, one of the gradient maps (the 03-06-2018 map), illustrates groundwater flow to the northwest.

In summary, the site groundwater flow direction appears to be variable with the predominant flow direction toward the south-southeast and less common flow toward the northwest. The well top-of-casing elevations need to be resurveyed to ensure a survey error is not responsible for the anomalous MW-4 water levels.

### Groundwater Anions

Concentrations of chloride and sulfate above the NMAC 20.6.2.3103 criteria have been documented in all four site monitoring wells. Concentrations of fluoride above the NMAC 20.6.2.3103 criteria were documented on one sampling occasion in both MW-3 and MW-4. The sample collected from MW-3 on December 6, 2012 and the sample collected from MW-4 on March 21, 2019 were documented to contain fluoride concentrations in exceedance of the applicable 1.6 mg/L criteria. A potential exceedance of the 20.6.2.3103 criteria for nitrate was documented on one sampling occasion (April 19, 2018) in MW-3.

### Dissolved Metals

Based upon available information, groundwater dissolved metals analyses were initiated at the site during the March 2012 sampling event. Elevated dissolved metals were subsequently documented in monitor wells MW-3 and MW-4. Exceedances of the NMAC 20.6.2.3103 criteria for arsenic, beryllium, iron, manganese, selenium and/or silver were documented on at least one sampling occasion in either or both MW-3 and MW-4. Of all these metals, manganese in MW-3 was the most consistently detected metal that was found to exceed the NMAC 20.6.2.3103 criteria.

### TPH and VOCs

As summarized above, the October 19, 2000 soil boring SB-1 groundwater sample was noted to contain elevated benzene and chloride concentrations. However, since this was an open soil boring subject to sloughing effects from overlying soils, these results were questionable as to whether they were truly representative of the actual groundwater quality. The groundwater analytical results for the permanent site monitoring wells did not contain any exceedances of the NMAC 20.6.2.3103 criteria. These results are considered valid since the permanent monitor wells were properly completed, developed and sampled. In summary, there do not appear to be any exceedances of the NMAC target criteria for VOCs or TPH.

### Specific Conductance, pH, Alkalinity, and TDS

Elevated TDS concentrations were documented in all samples collected from the four monitor wells at the site.



### Isoconcentration Maps

Attached are isoconcentration maps for varying sampling dates between 2002 and 2022 for the primary groundwater constituents of concern (COCs) at the Site, including chloride, sulfate and TDS. As illustrated on these maps, the overall most affected site monitoring well is MW-3, located to the south of the former pit. In the August 2005 *Amended Stage 1 Abatement Plan*, it was noted that the source of the highly elevated chlorides in monitor well MW-3 was unknown and that it was unclear whether they derived from the subject pit.

Ranger is also of the opinion that, based upon the available data, it is presently unclear whether the former pit is the source of the site groundwater impacts or whether the groundwater in the pit area has been affected by an unrelated release source. If the former pit were the source of the groundwater impacts, then it would generally be anticipated that groundwater COC levels would decrease away from the pit rather than increase away from the pit. Further investigation is needed to evaluate this condition.

### **3.2 2020 SESI Soil Investigation**

In August 2020, additional soil investigation activities were completed at the Site by SESI. SESI installed a total of 15 test excavations and submitted a total of 21 soil samples to the laboratory for analysis. The test excavations were installed to depths ranging from 4' to 8' bgs. The attached "*Soil TPH, BTEX & Chloride Data Summary*" table provides a summary of the soil analytical results from this investigation. Also attached are a site map illustrating the soil sampling locations and copies of the laboratory analytical reports.

As presented in the attached soil analytical table, SESI's August 2020 soil investigation activities documented exceedances of the 19.15.29.12 NMAC *Table 1 Closure Criteria for Soils Impacted by a Release (GW  $\leq$  50')* for both TPH and chloride. Six soil samples (from sampling locations P-4, P-8 and P-11) were found to exceed the target TPH criteria. The extent of the TPH exceedances at these locations was not defined. Seven soil samples (from sampling locations P-4, P-5, P-8 and SP-2) were found to exceed the target chloride criteria. The extent of the chloride exceedances at sampling locations P-4, P-5 and SP-2 was not defined.

## **4.0 CURRENT SITE COMMUNICATIONS AND CORRESPONDENCE**

In 2023, EOG engaged Ranger to assist in the continuation of the assessment and remediation efforts at the Site, as well as to re-establish communications with the NMOCD regarding the Site. In May 2023, Ranger personnel participated in a conference call with Mr. Nelson Velez of the NMOCD regarding the subject site. The call included a review of the Site history, the presentation of data collected since 2005, review of the current status of the Site, and a discussion of the appropriate regulatory path forward. It was agreed this report would be prepared to assist the NMOCD in determining the appropriate path forward for the Site.

## **5.0 REGULATORY GUIDANCE REQUEST**

In a desire to properly address the documented impacts at the Site and bring the Site into compliance with current regulatory guidelines, EOG respectfully requests NMOCD guidance regarding the appropriate regulatory reporting/proposal format that will be required for the next phase of site activities. The obvious steps needed to move the project forward are to complete



the delineation of the soil and groundwater impacts, determine the appropriate COCs for future soil and groundwater analyses, continue groundwater monitoring, etc. Upon NMOCD determination of the appropriate regulatory mechanism and reporting format for the next phase of site work, Ranger will prepare a detailed work plan for NMOCD review.



## FIGURES

Topographic Map

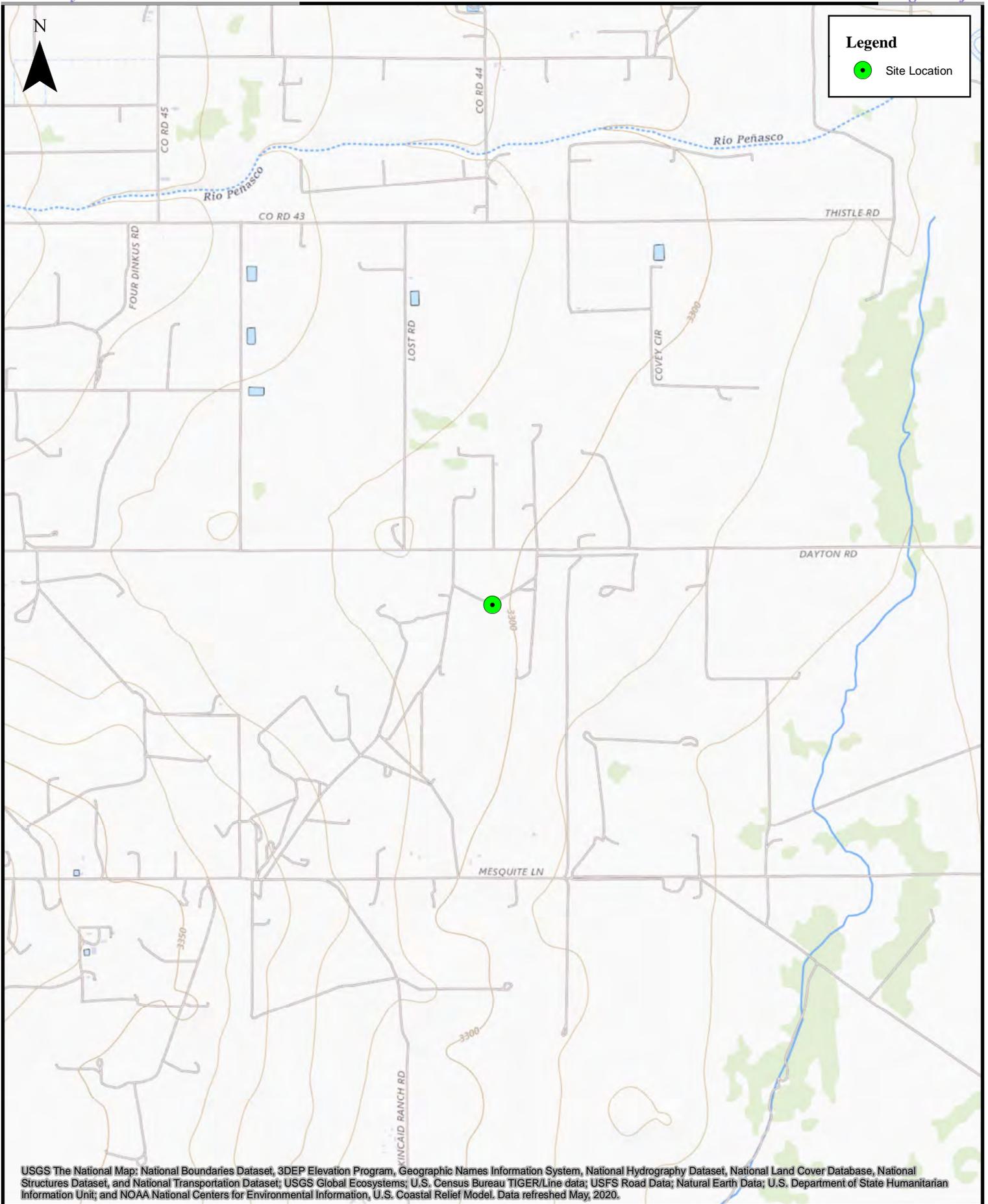
Area Map

Site Map

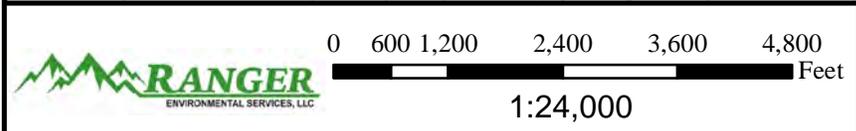
Groundwater Gradient Maps (2002 – 2021)

Groundwater Isoconcentration Maps

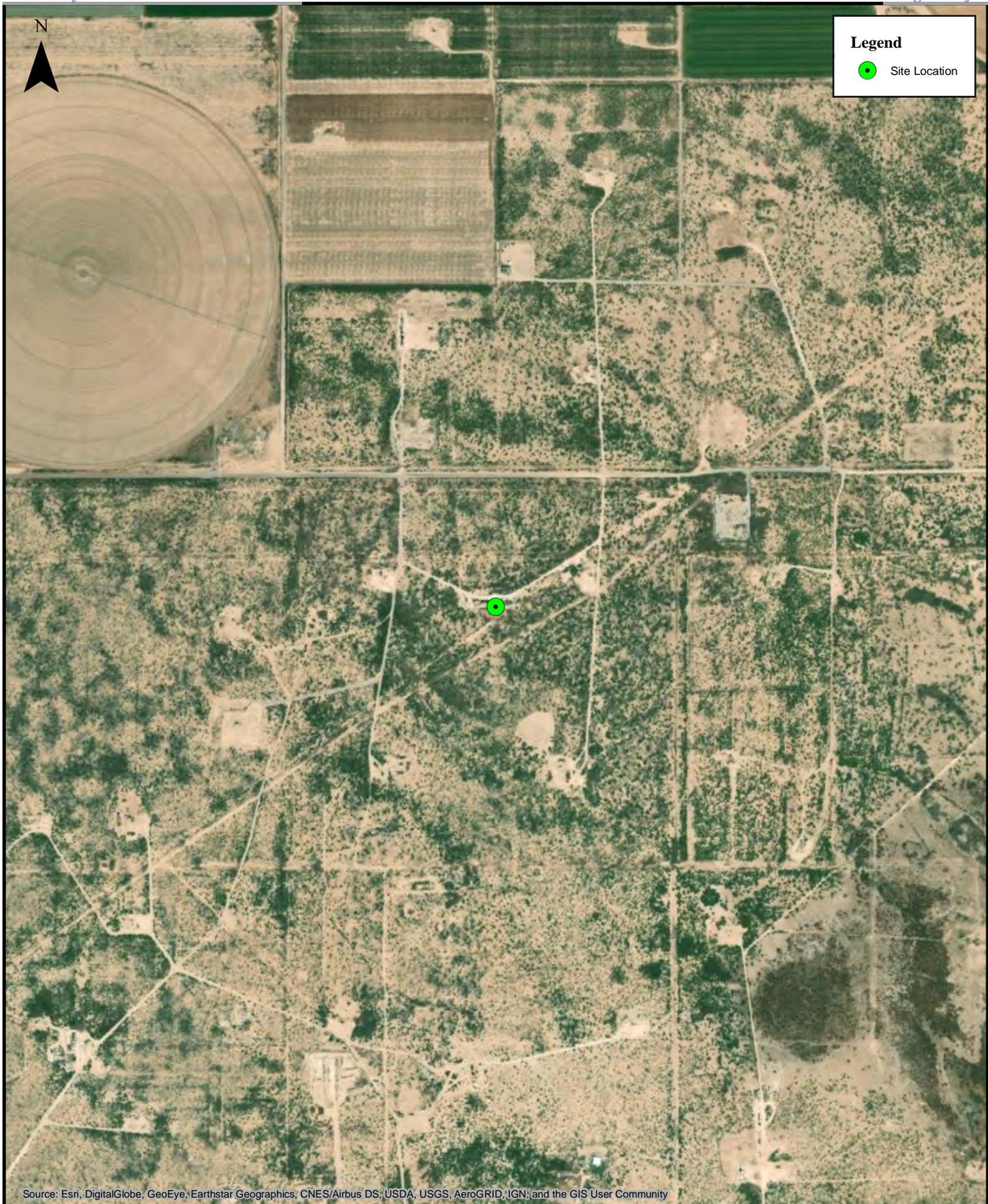
August 2020 Soil Sampling Locations



USGS The National Map: National Boundaries Dataset, 3DEP Elevation Program, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; USGS Global Ecosystems; U.S. Census Bureau TIGER/Line data; USFS Road Data; Natural Earth Data; U.S. Department of State Humanitarian Information Unit; and NOAA National Centers for Environmental Information, U.S. Coastal Relief Model. Data refreshed May, 2020.



**Topographic Map**  
 Inex Pit  
 EOG Resources, Inc.



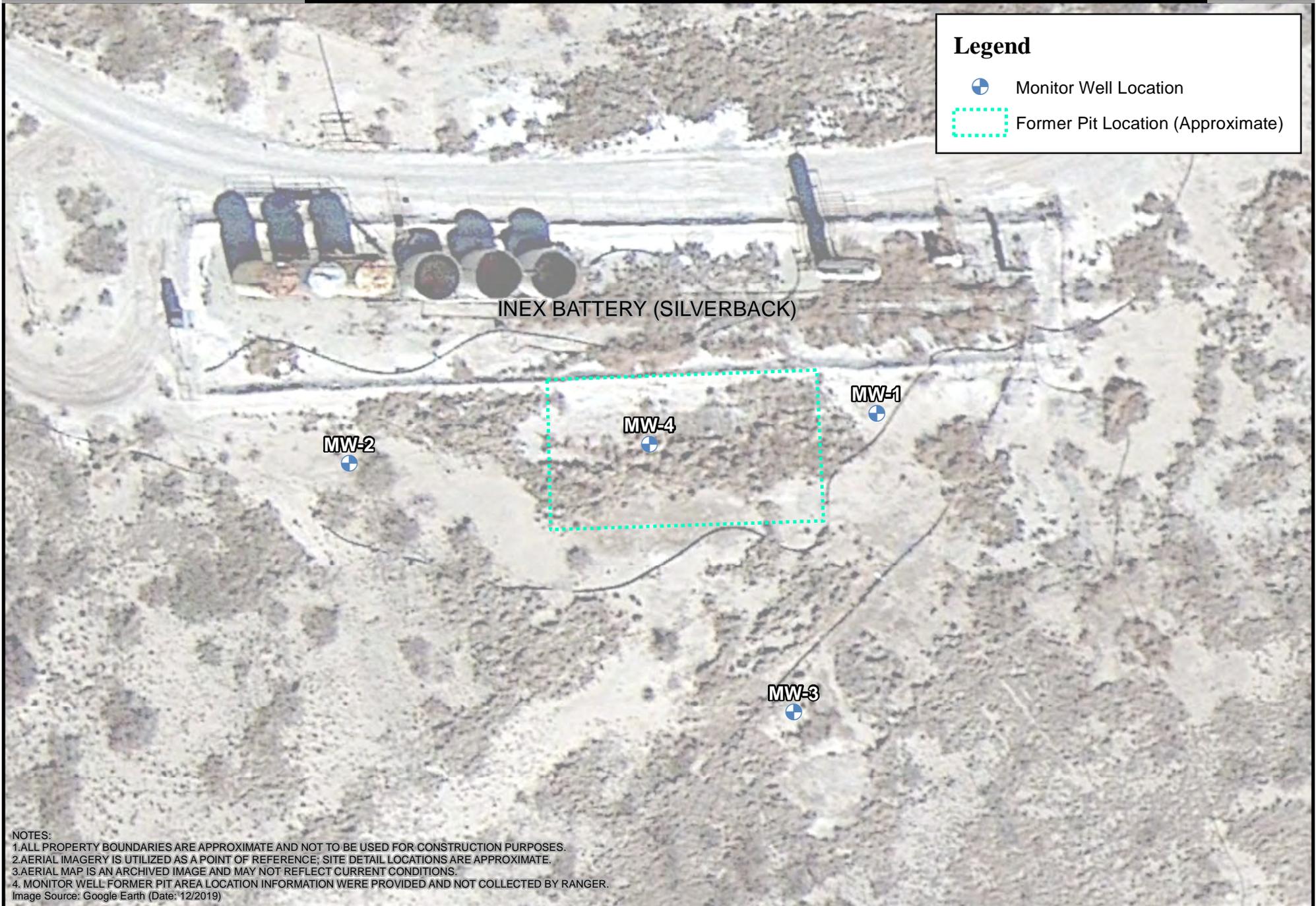
**Legend**

- Site Location

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

 0 250 500 1,000 1,500 2,000 Feet  
1:10,000

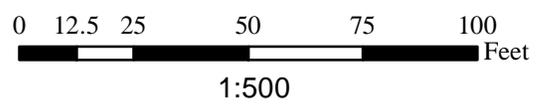
**Area Map**  
Inex Pit  
EOG Resources, Inc.



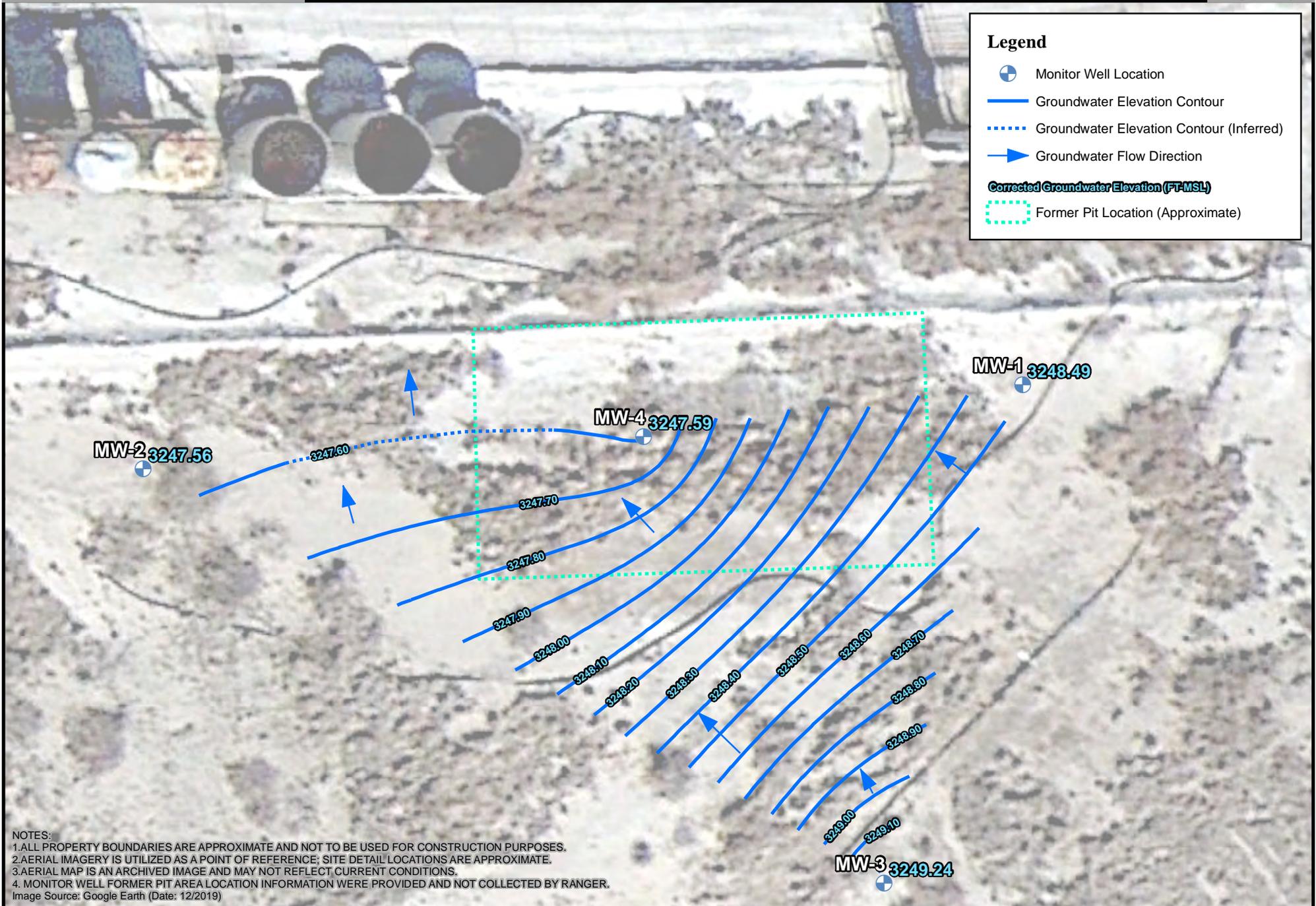
**Legend**

-  Monitor Well Location
-  Former Pit Location (Approximate)

NOTES:  
 1. ALL PROPERTY BOUNDARIES ARE APPROXIMATE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.  
 2. AERIAL IMAGERY IS UTILIZED AS A POINT OF REFERENCE; SITE DETAIL LOCATIONS ARE APPROXIMATE.  
 3. AERIAL MAP IS AN ARCHIVED IMAGE AND MAY NOT REFLECT CURRENT CONDITIONS.  
 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)



**Site Map**  
 Inex Pit  
 EOG Resources, Inc.

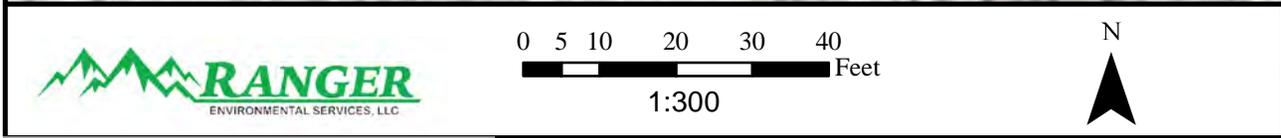
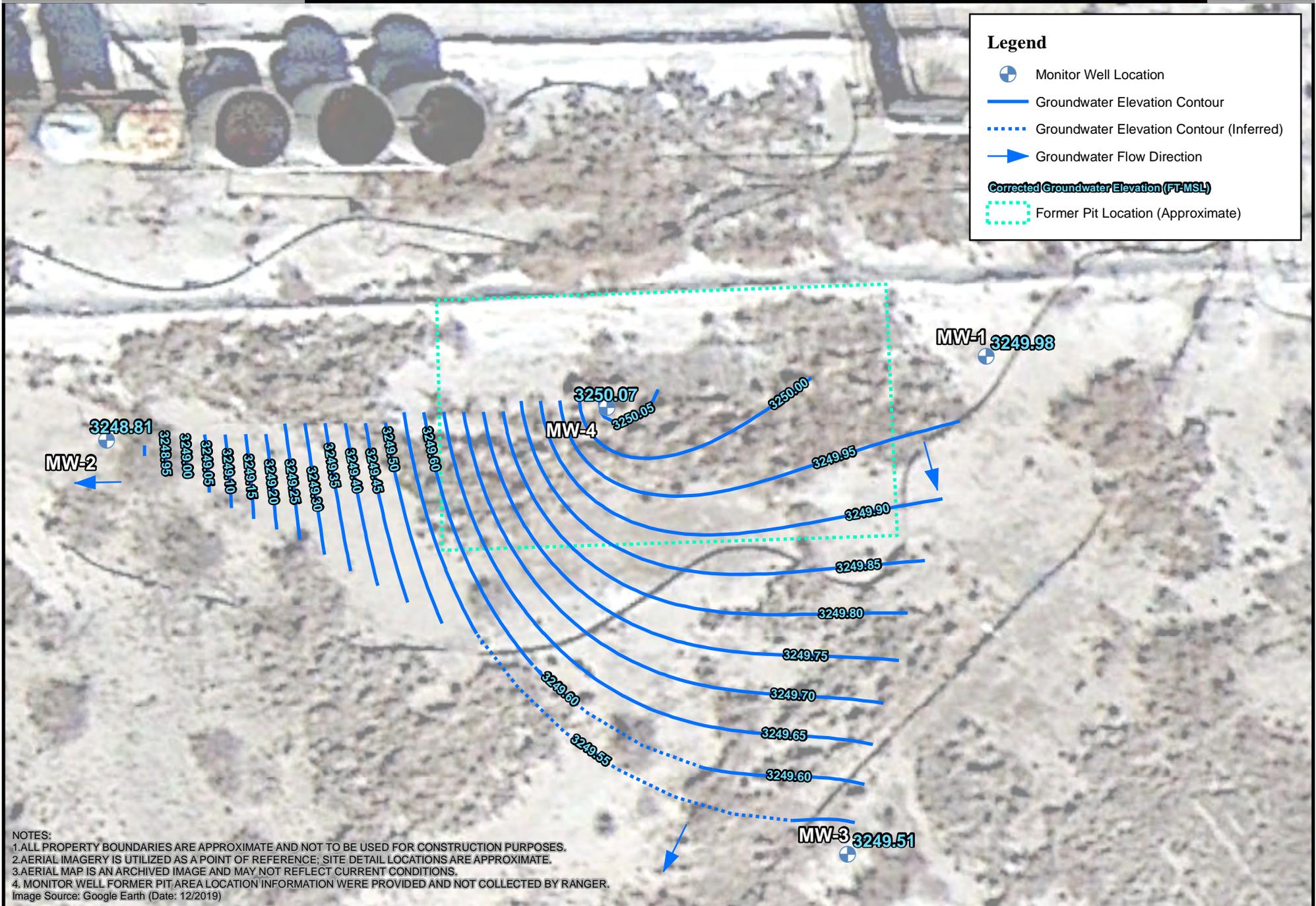


**Legend**

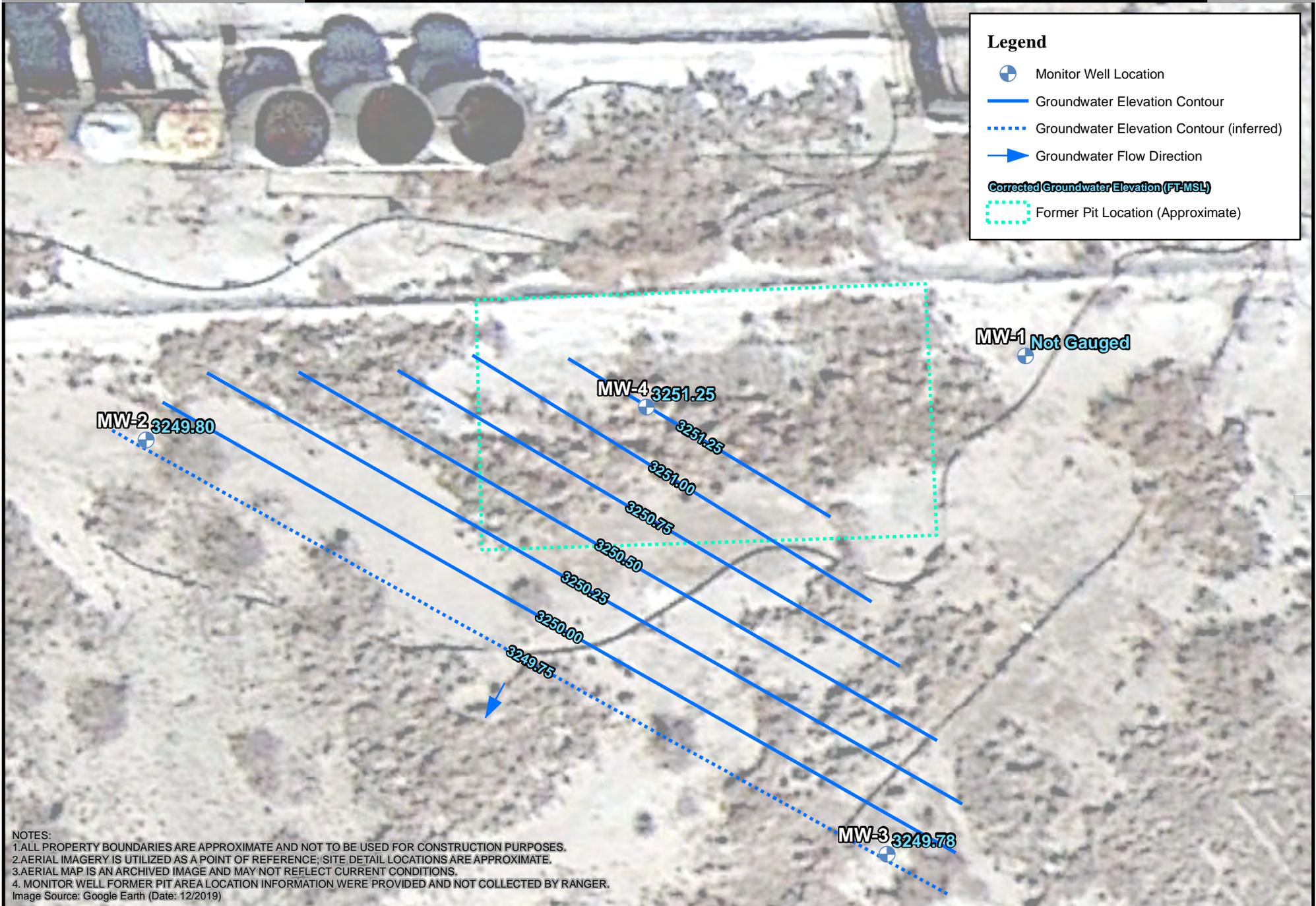
- Monitor Well Location
- Groundwater Elevation Contour
- Groundwater Elevation Contour (Inferred)
- Groundwater Flow Direction
- Corrected Groundwater Elevation (FT-MSL)**
- Former Pit Location (Approximate)

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 Image Source: Google Earth (Date: 12/2019)

	<p>0 5 10 20 30 40   Feet        1:300</p>	<p>N  </p>	<p><b>Groundwater Gradient Map (09/19/2002)</b>        Inex Pit        EOG Resources, Inc.</p>
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**Groundwater Gradient Map (11/03/2004)**  
Inex Pit  
EOG Resources, Inc.

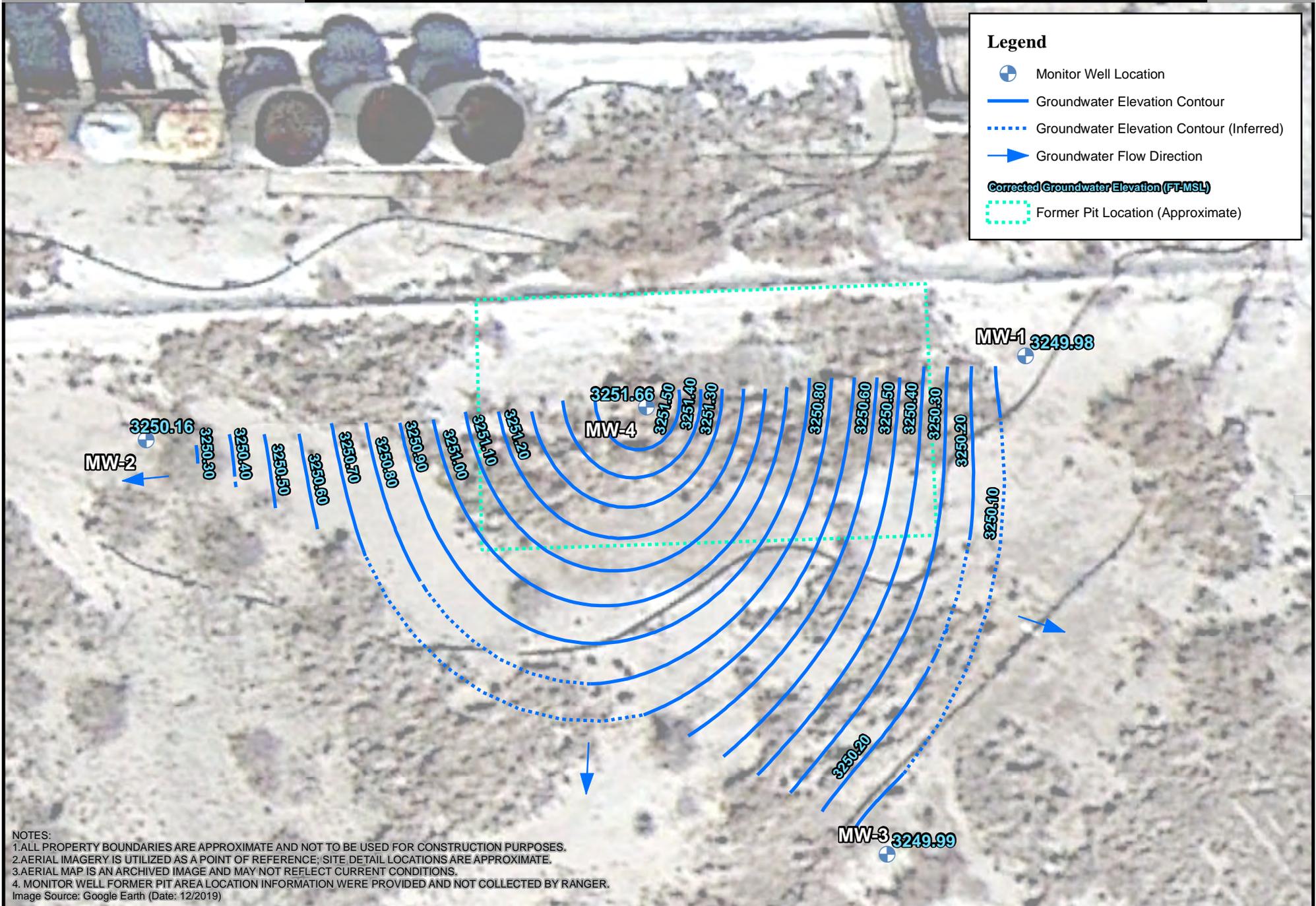


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 Image Source: Google Earth (Date: 12/2019)

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**Groundwater Gradient Map (12/01/2004)**  
 Inex Pit  
 EOG Resources, Inc.

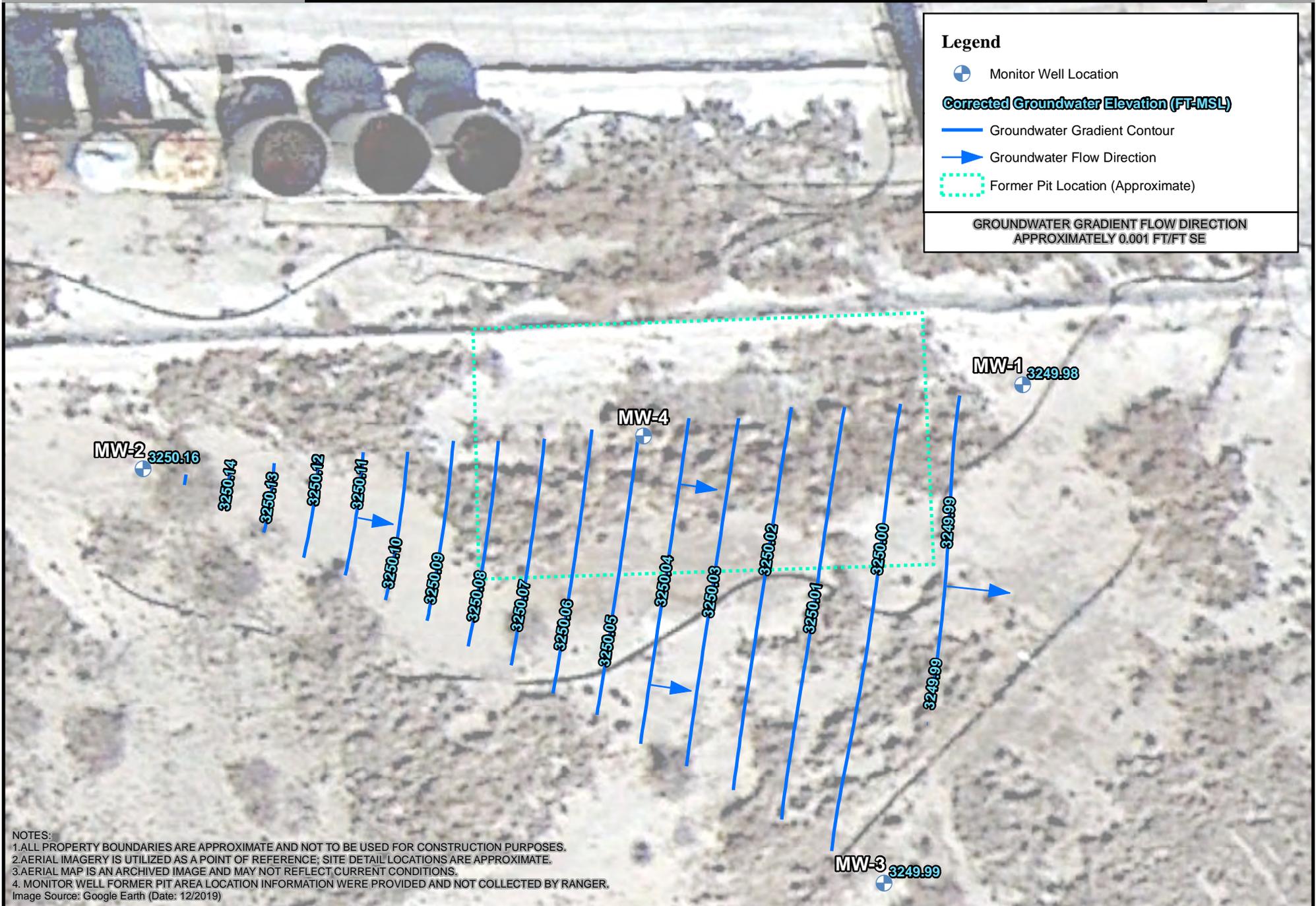


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 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
 1:300

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**Groundwater Gradient Map (12/15/2004)**  
 Inex Pit  
 EOG Resources, Inc.

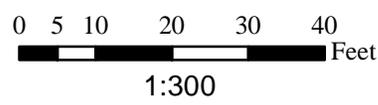


**Legend**

- Monitor Well Location
- Corrected Groundwater Elevation (FT-MSL)**
- Groundwater Gradient Contour
- ➔ Groundwater Flow Direction
- Former Pit Location (Approximate)

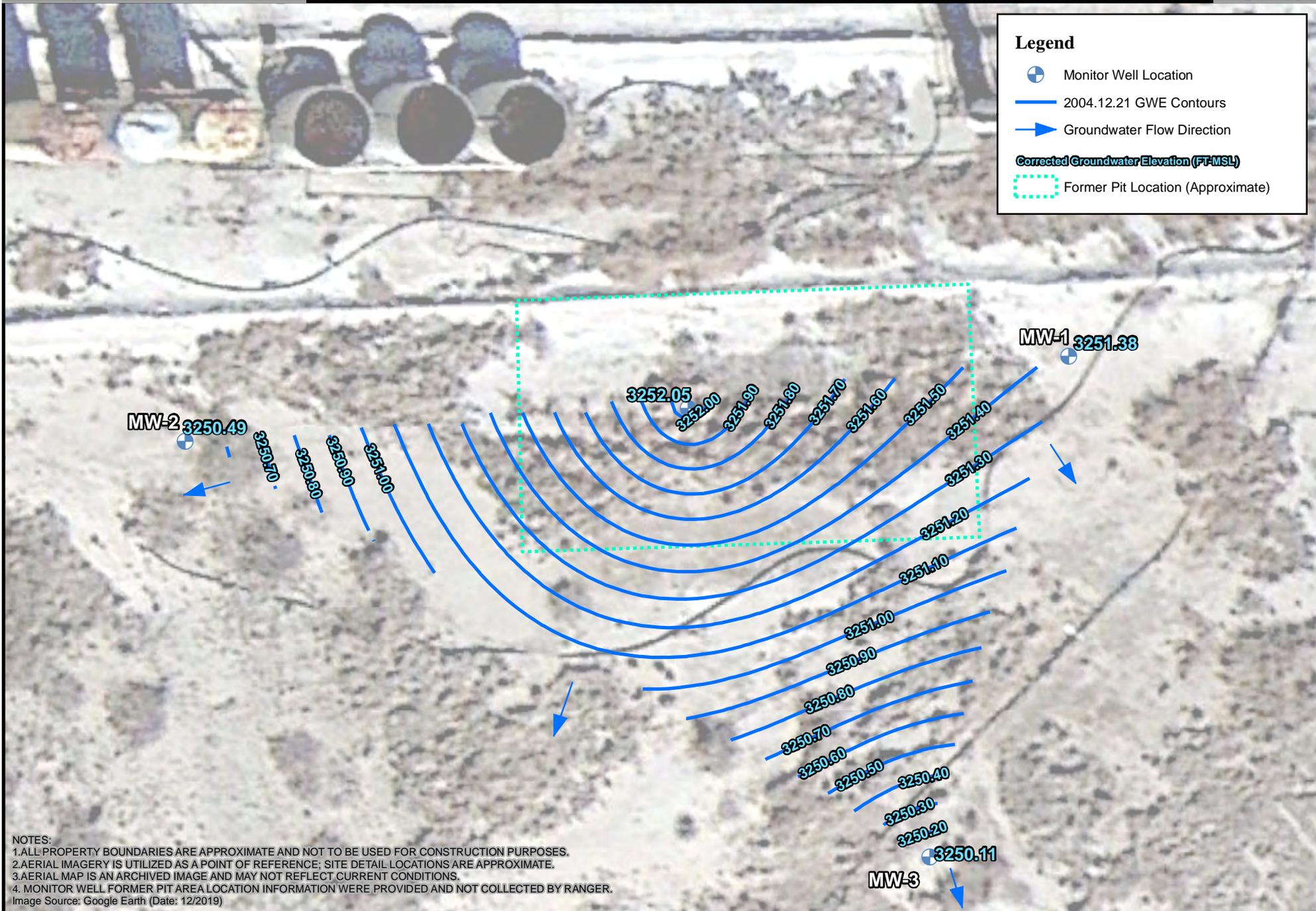
GROUNDWATER GRADIENT FLOW DIRECTION  
APPROXIMATELY 0.001 FT/FT SE

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 Image Source: Google Earth (Date: 12/2019)



**Groundwater Elevation Map (Date: 12/15/2004)**  
 (Without MW-4 Data)  
 Inex Pit  
 EOG Resources, Inc.



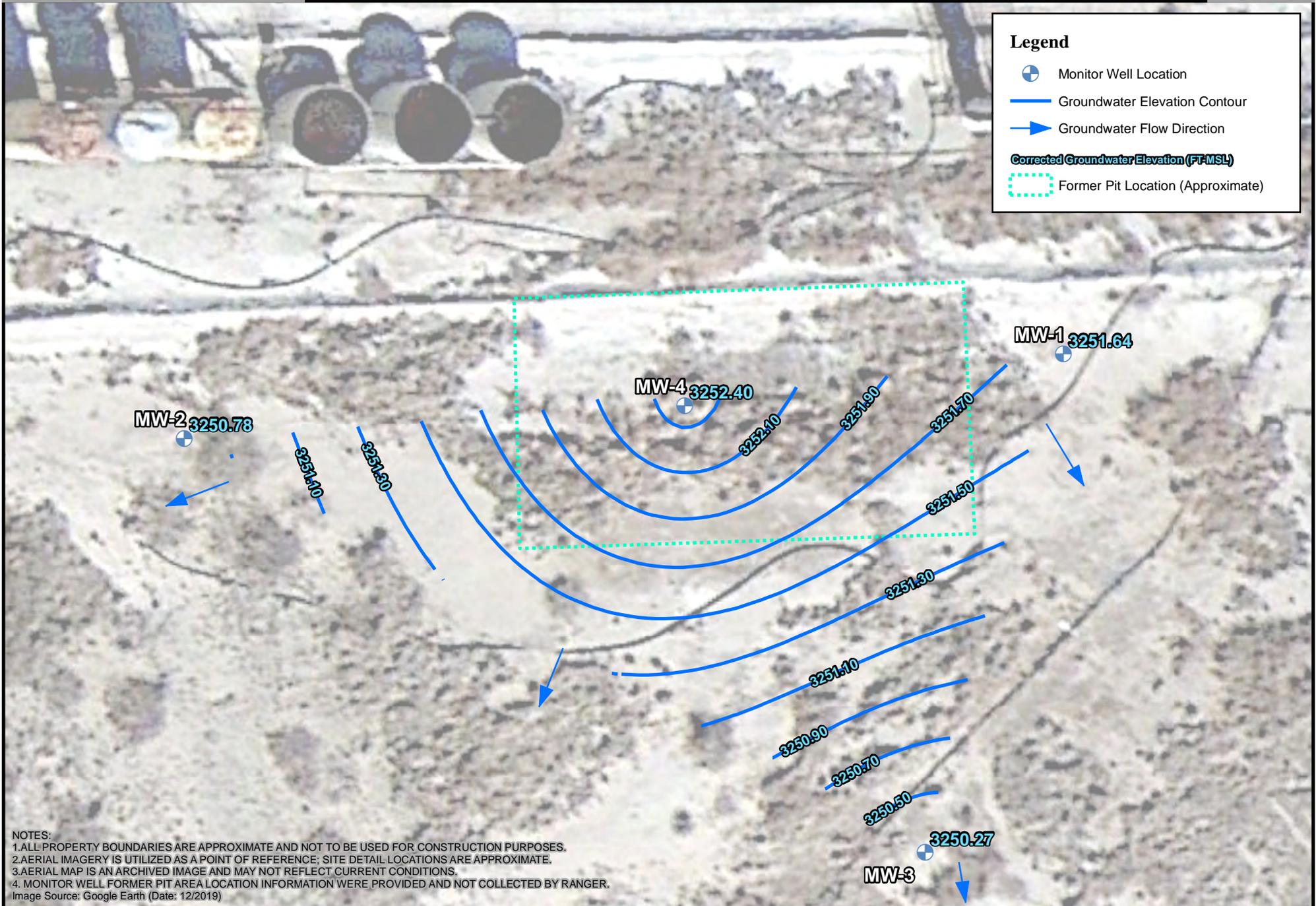


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0 5 10 20 30 40 Feet  
 1:300

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**Groundwater Gradient Map (12/21/2004)**  
 Inex Pit  
 EOG Resources, Inc.



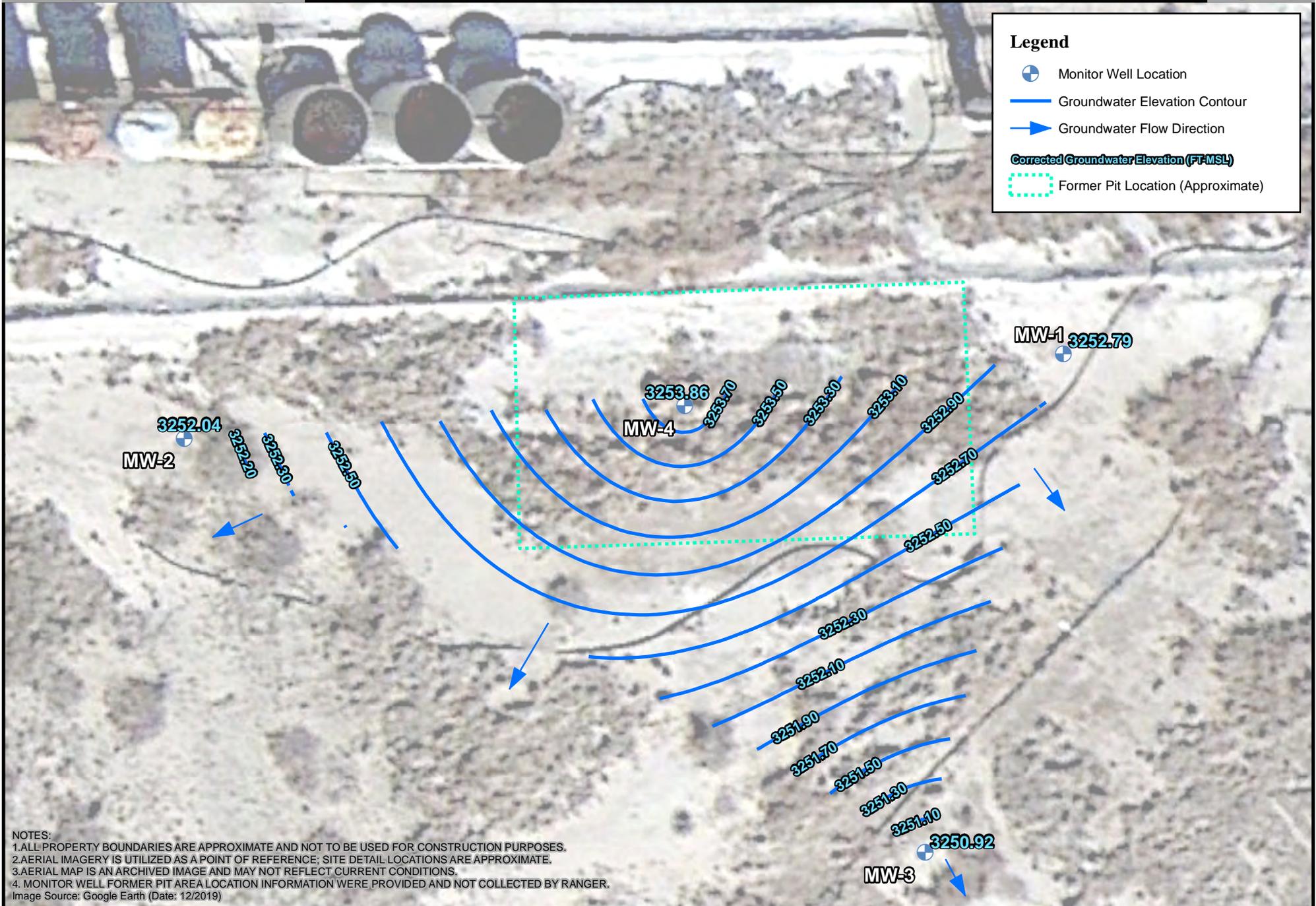
NOTES:  
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 3. AERIAL MAP IS AN ARCHIVED IMAGE AND MAY NOT REFLECT CURRENT CONDITIONS.  
 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)

**RANGER**  
ENVIRONMENTAL SERVICES, LLC

0 5 10 20 30 40 Feet  
1:300

N

**Groundwater Gradient Map (12/30/2004)**  
 Inex Pit  
 EOG Resources, Inc.



**Legend**

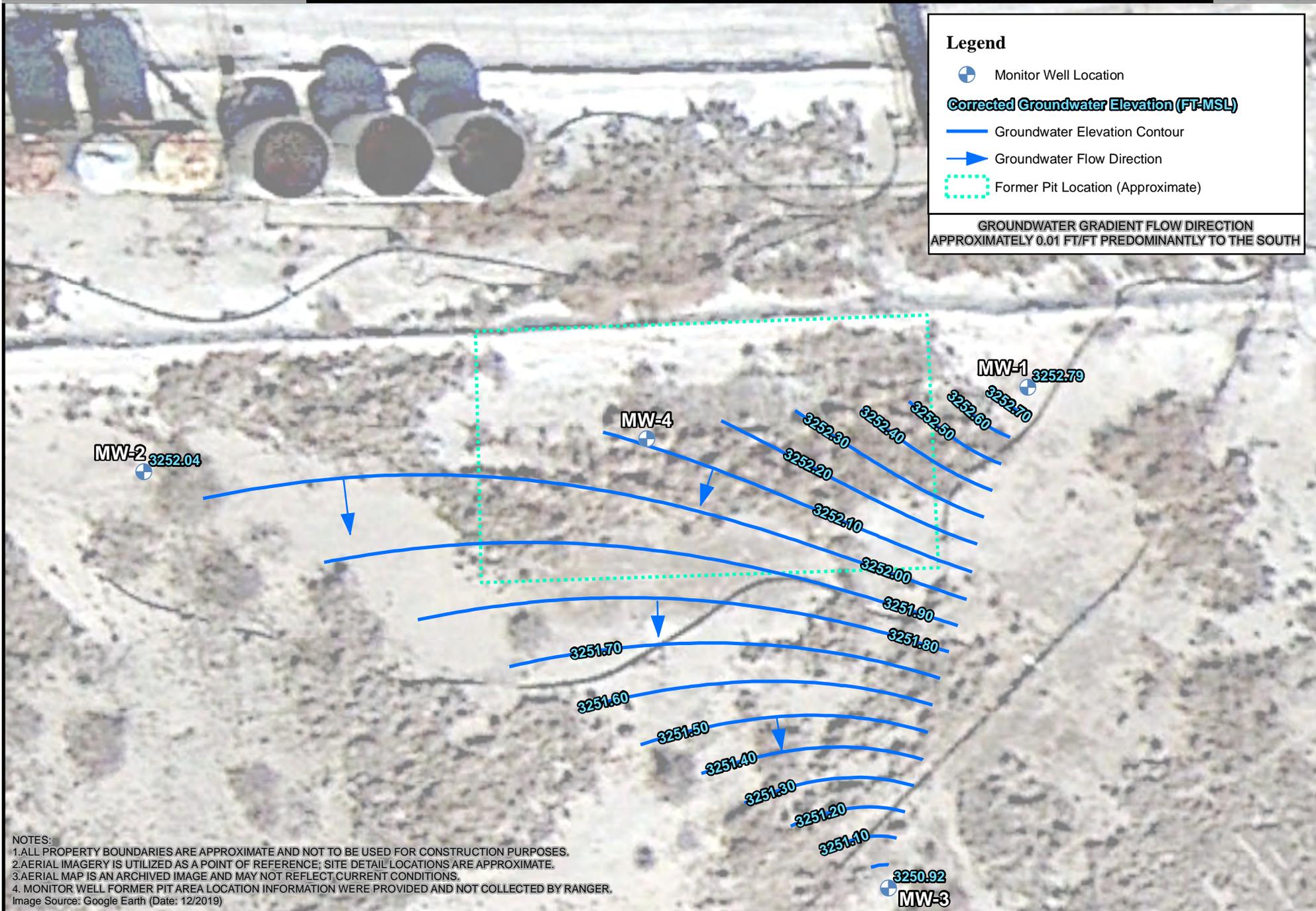
- Monitor Well Location
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Corrected Groundwater Elevation (FT-MSL)
- Former Pit Location (Approximate)

NOTES:  
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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40  
 Feet  
 1:300

N

**Groundwater Gradient Map (02/10/2005)**  
 Inex Pit  
 EOG Resources, Inc.



**Legend**

- Monitor Well Location
- Corrected Groundwater Elevation (FT-MSL)**
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Pit Location (Approximate)

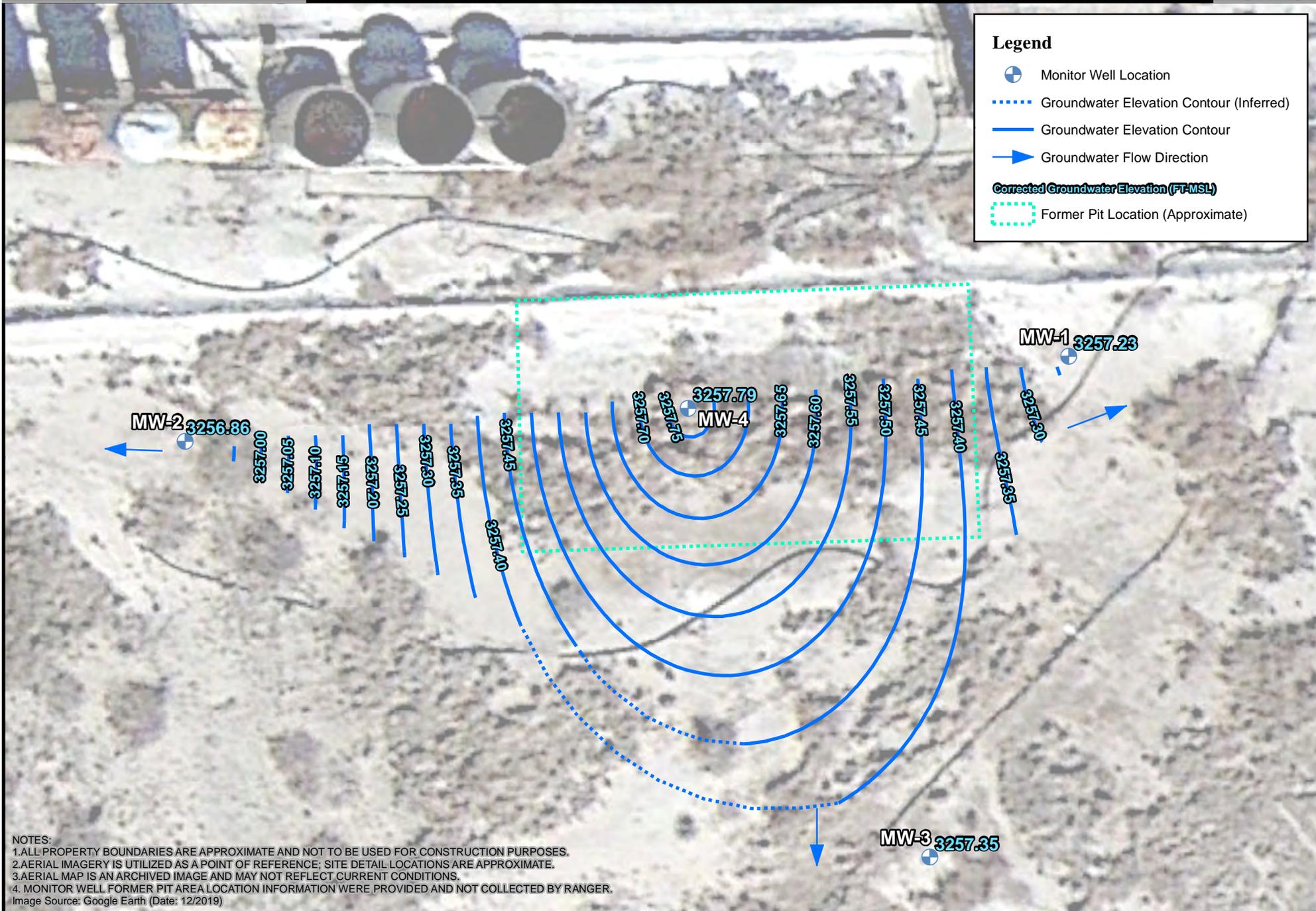
GROUNDWATER GRADIENT FLOW DIRECTION  
APPROXIMATELY 0.01 FT/FT PREDOMINANTLY TO THE SOUTH

NOTES:  
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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
1:300

N

**Groundwater Elevation Map (Date:02/10/2005)**  
 (Without MW-4 Data)  
 Inex Pit  
 EOG Resources, Inc.

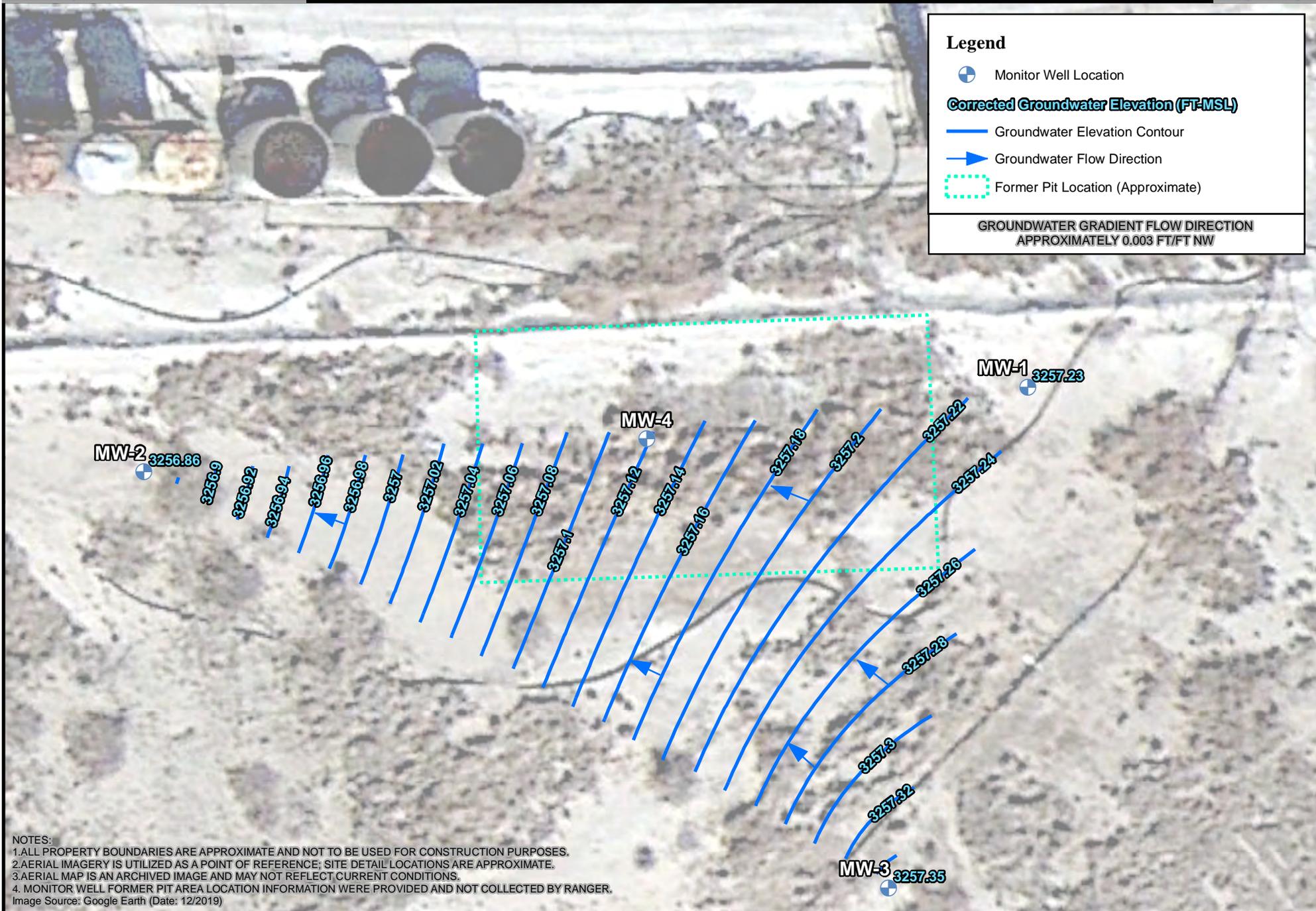


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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
 1:300

N

**Groundwater Gradient Map (03/06/2018)**  
 Inex Pit  
 EOG Resources, Inc.



**Legend**

- Monitor Well Location
- Corrected Groundwater Elevation (FT-MSL)**
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Pit Location (Approximate)

**GROUNDWATER GRADIENT FLOW DIRECTION  
APPROXIMATELY 0.003 FT/FT NW**

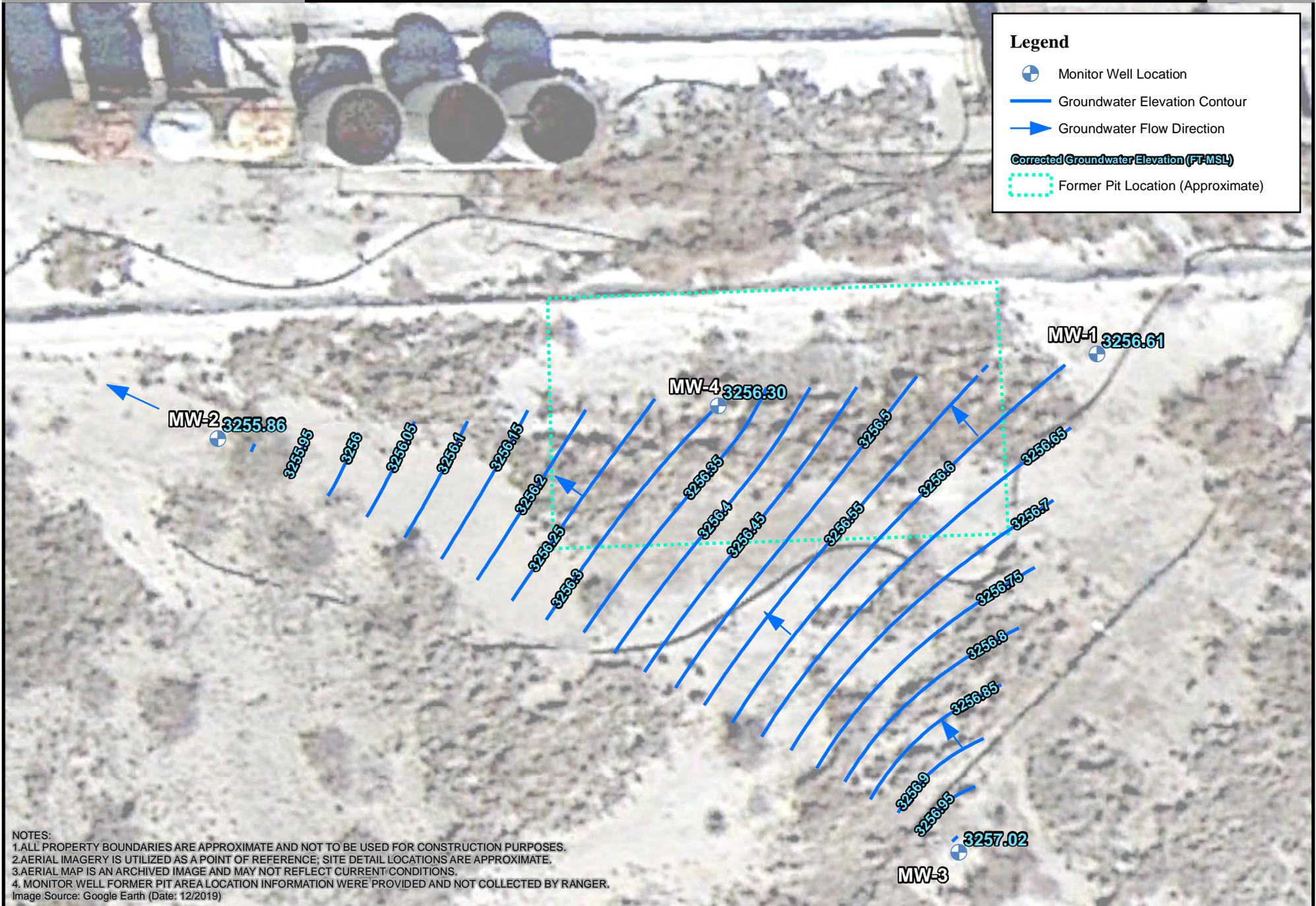
NOTES:  
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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)



0 5 10 20 30 40 Feet  
 1:300

N

**Groundwater Elevation Map (Date:03/06/2018)**  
 (Without MW-4 Data)  
 Inex Pit  
 EOG Resources, Inc.



**Legend**

- Monitor Well Location
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Corrected Groundwater Elevation (FT-MSL)
- Former Pit Location (Approximate)

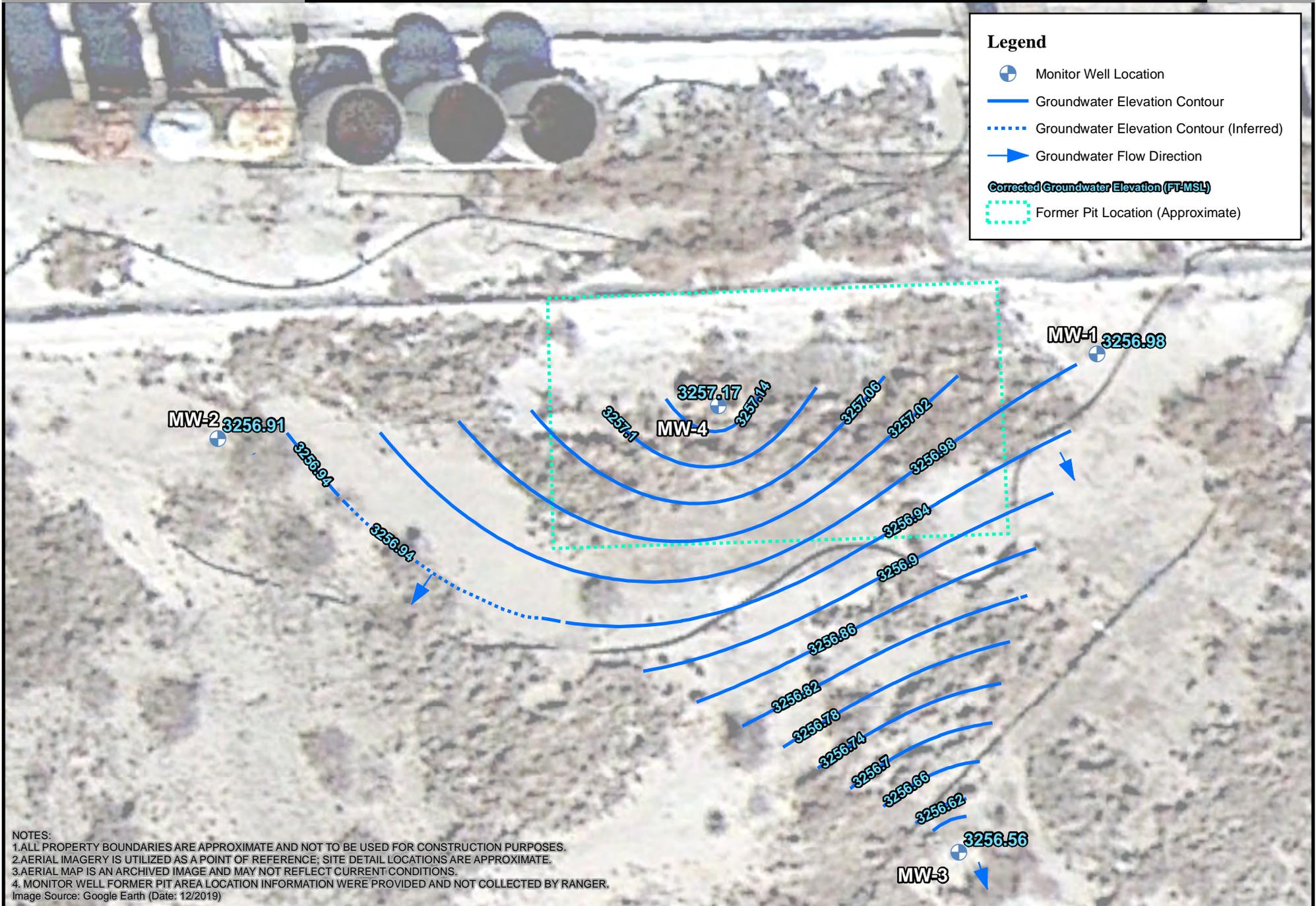
NOTES:  
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 Image Source: Google Earth (Date: 12/2019)



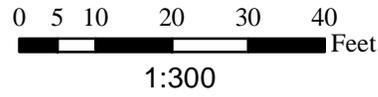
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 1:300



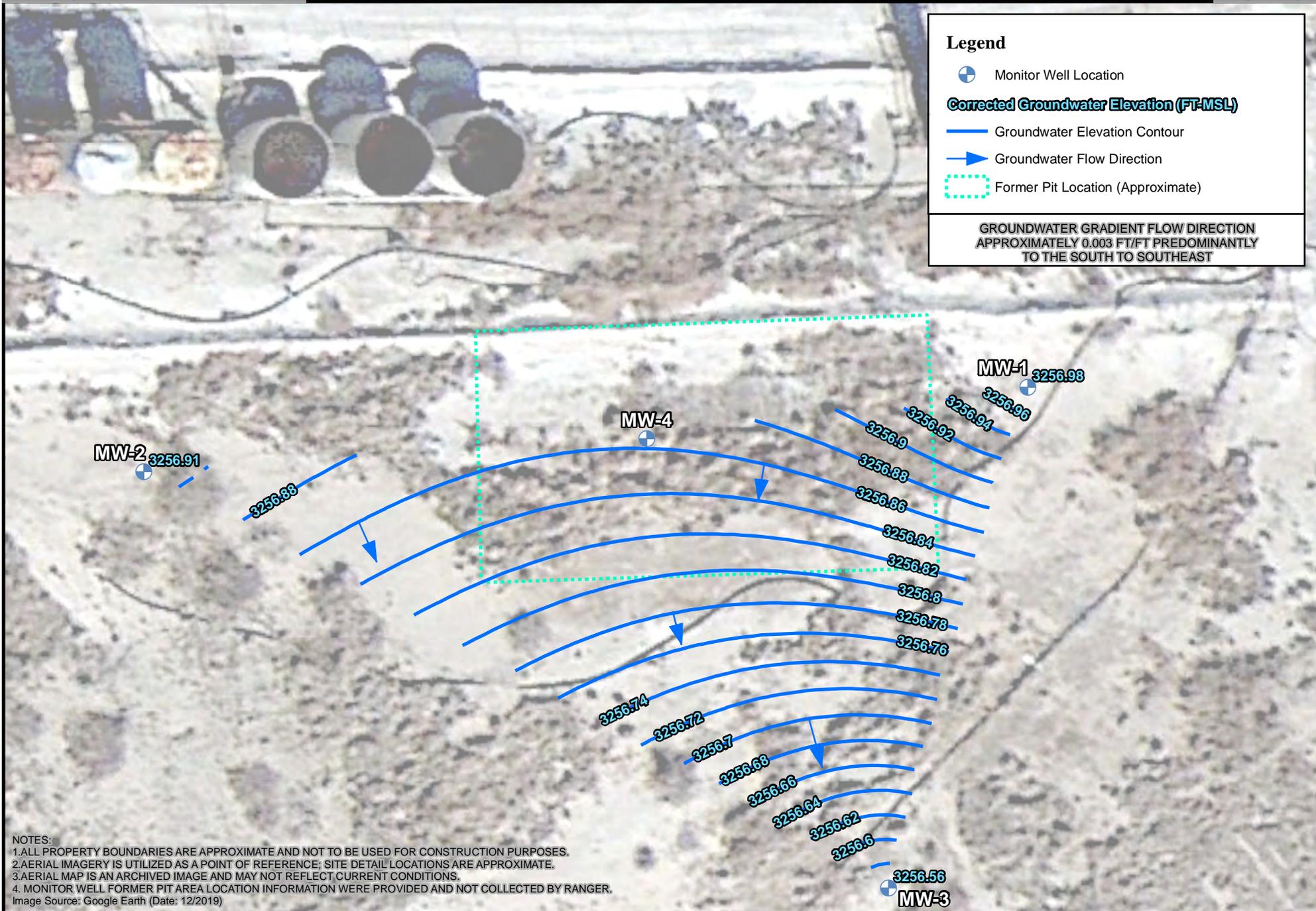
**Groundwater Gradient Map (04/19/2018)**  
 Inex Pit  
 EOG Resources, Inc.



NOTES:  
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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)



**Groundwater Gradient Map (04/21/2019)**  
 Inex Pit  
 EOG Resources, Inc.



**Legend**

- Monitor Well Location
- Corrected Groundwater Elevation (FT-MSL)**
- Groundwater Elevation Contour
- Groundwater Flow Direction
- Former Pit Location (Approximate)

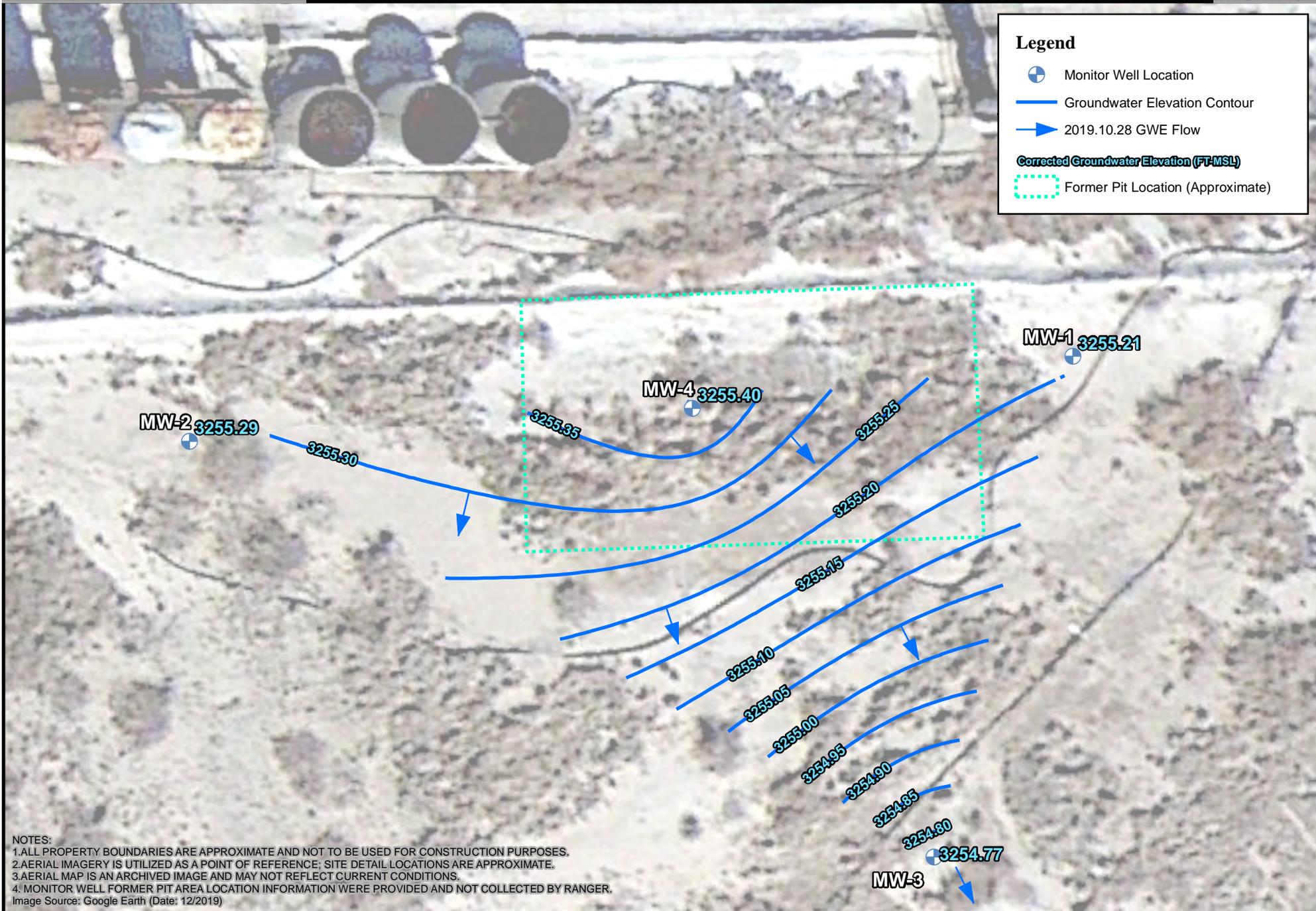
**GROUNDWATER GRADIENT FLOW DIRECTION  
APPROXIMATELY 0.003 FT/FT PREDOMINANTLY  
TO THE SOUTH TO SOUTHEAST**

NOTES:  
 1. ALL PROPERTY BOUNDARIES ARE APPROXIMATE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.  
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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
1:300

N

**Groundwater Elevation Map (Date:04/21/2019)**  
 (Without MW-4 Data)  
 Inex Pit  
 EOG Resources, Inc.



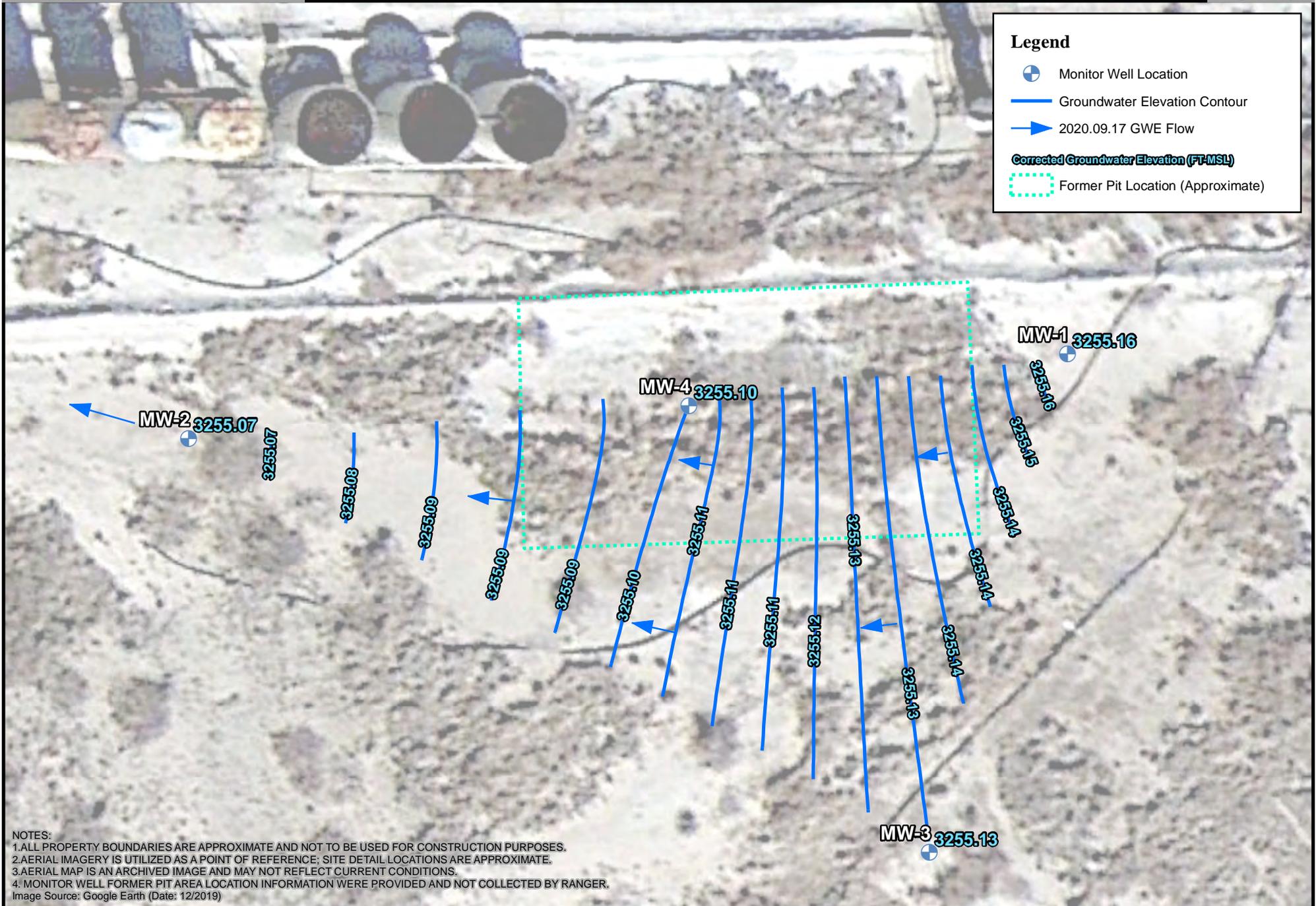
NOTES:  
 1. ALL PROPERTY BOUNDARIES ARE APPROXIMATE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.  
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 Image Source: Google Earth (Date: 12/2019)

**RANGER**  
 ENVIRONMENTAL SERVICES, LLC

0 5 10 20 30 40 Feet  
 1:300

N

**Groundwater Gradient Map (10/28/2019)**  
 Inex Pit  
 EOG Resources, Inc.

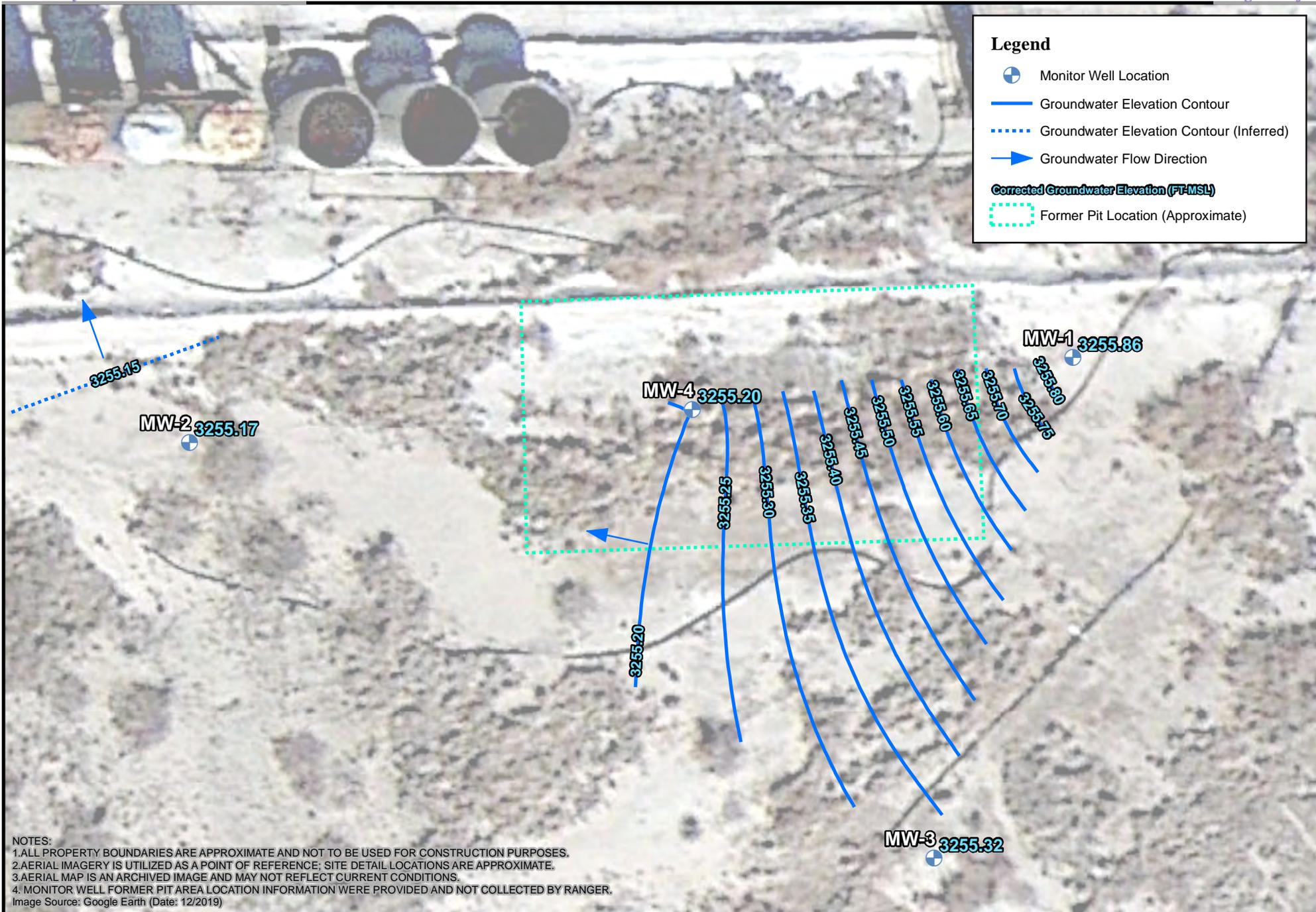


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 2. AERIAL IMAGERY IS UTILIZED AS A POINT OF REFERENCE; SITE DETAIL LOCATIONS ARE APPROXIMATE.  
 3. AERIAL MAP IS AN ARCHIVED IMAGE AND MAY NOT REFLECT CURRENT CONDITIONS.  
 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
 1:300

N

**Groundwater Gradient Map (09/17/2020)**  
 Inex Pit  
 EOG Resources, Inc.



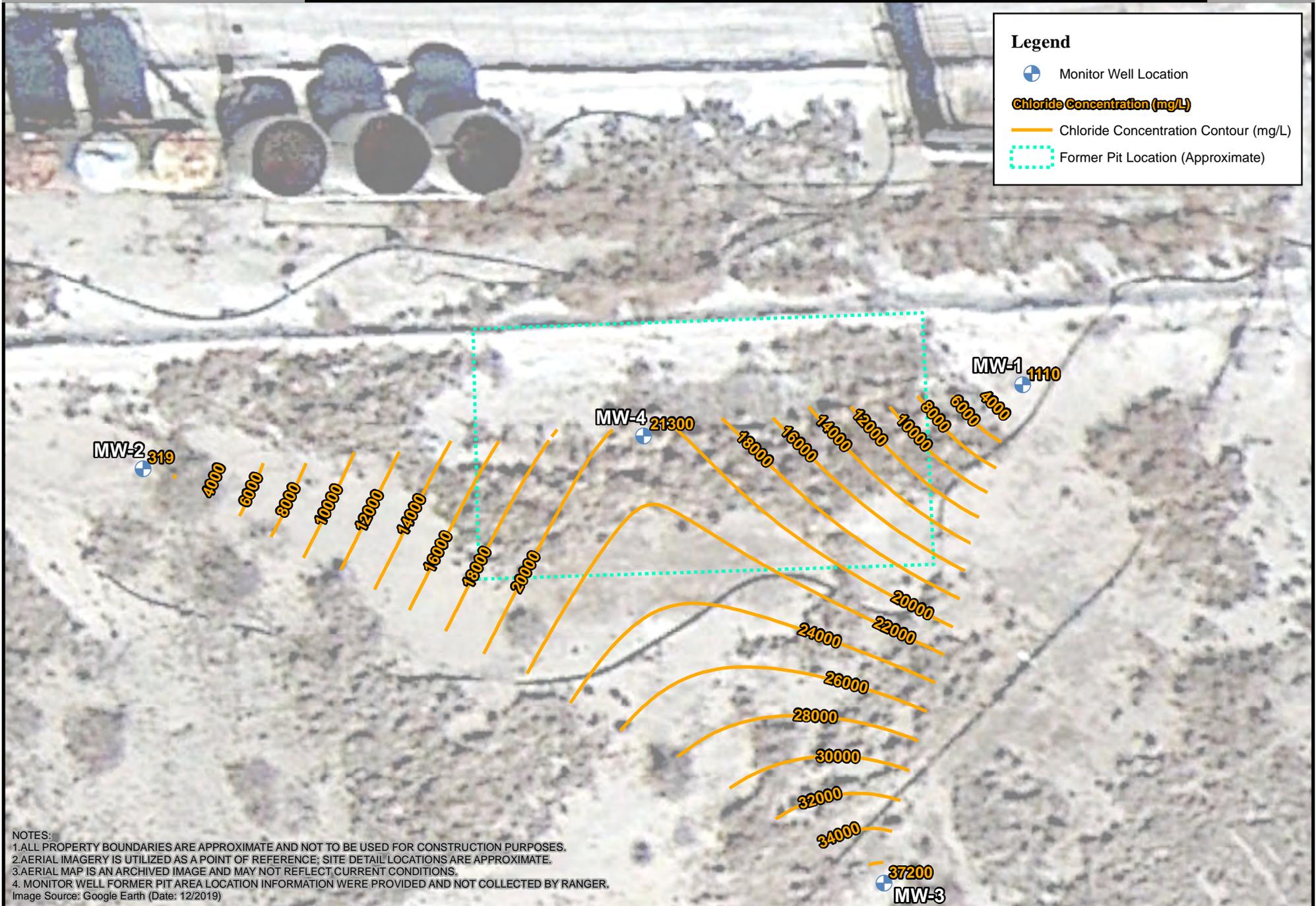
NOTES:  
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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)



0 5 10 20 30 40 Feet  
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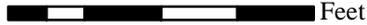
**Groundwater Gradient Map (08/23/2021)**  
 Inex Pit  
 EOG Resources, Inc.

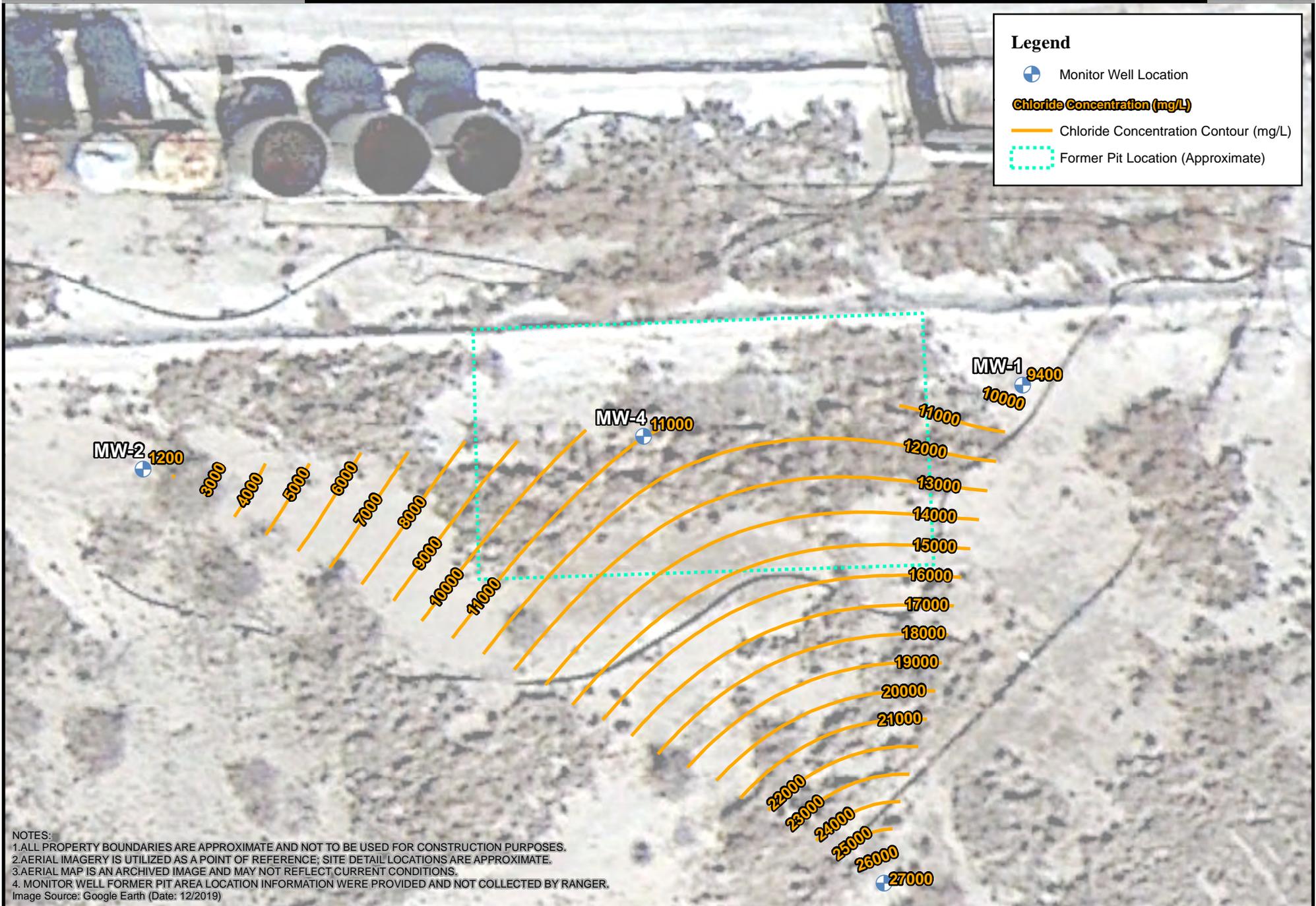


**Legend**

- Monitor Well Location
- Chloride Concentration (mg/L)**
- Chloride Concentration Contour (mg/L)
- Former Pit Location (Approximate)

NOTES:  
 1. ALL PROPERTY BOUNDARIES ARE APPROXIMATE AND NOT TO BE USED FOR CONSTRUCTION PURPOSES.  
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 Image Source: Google Earth (Date: 12/2019)

	<p>0 5 10 20 30 40          Feet        1:300</p>	<p>N  </p>	<p><b>Chloride Isoconcentration Map</b>        (Sample Date: 09/19/2002)        Inex Pit        EOG Resources, Inc.</p>
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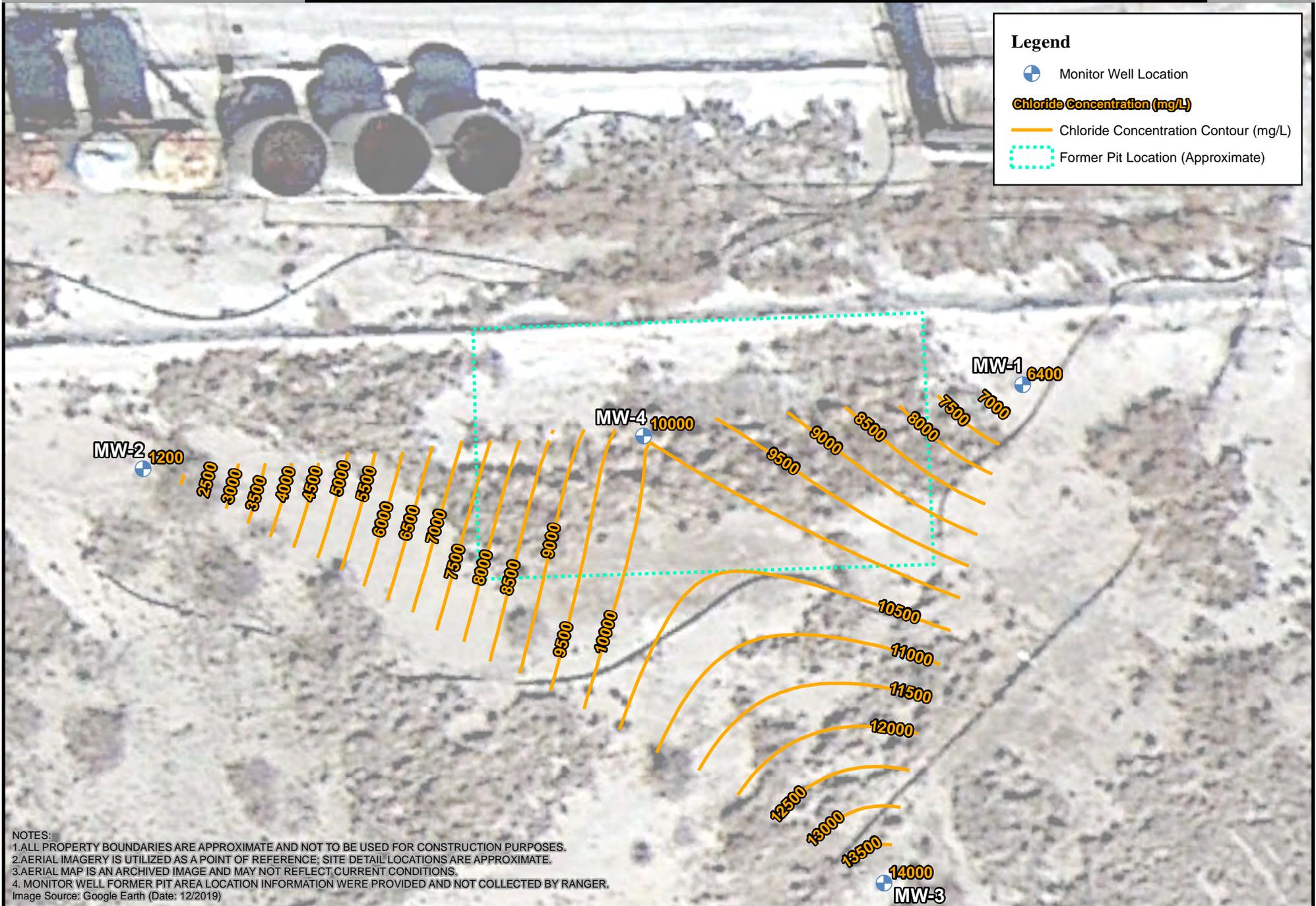


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 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
 1:300

N

**Chloride Isoconcentration Map**  
 (Sample Date: 03/17/2012)  
 Inex Pit  
 EOG Resources, Inc.

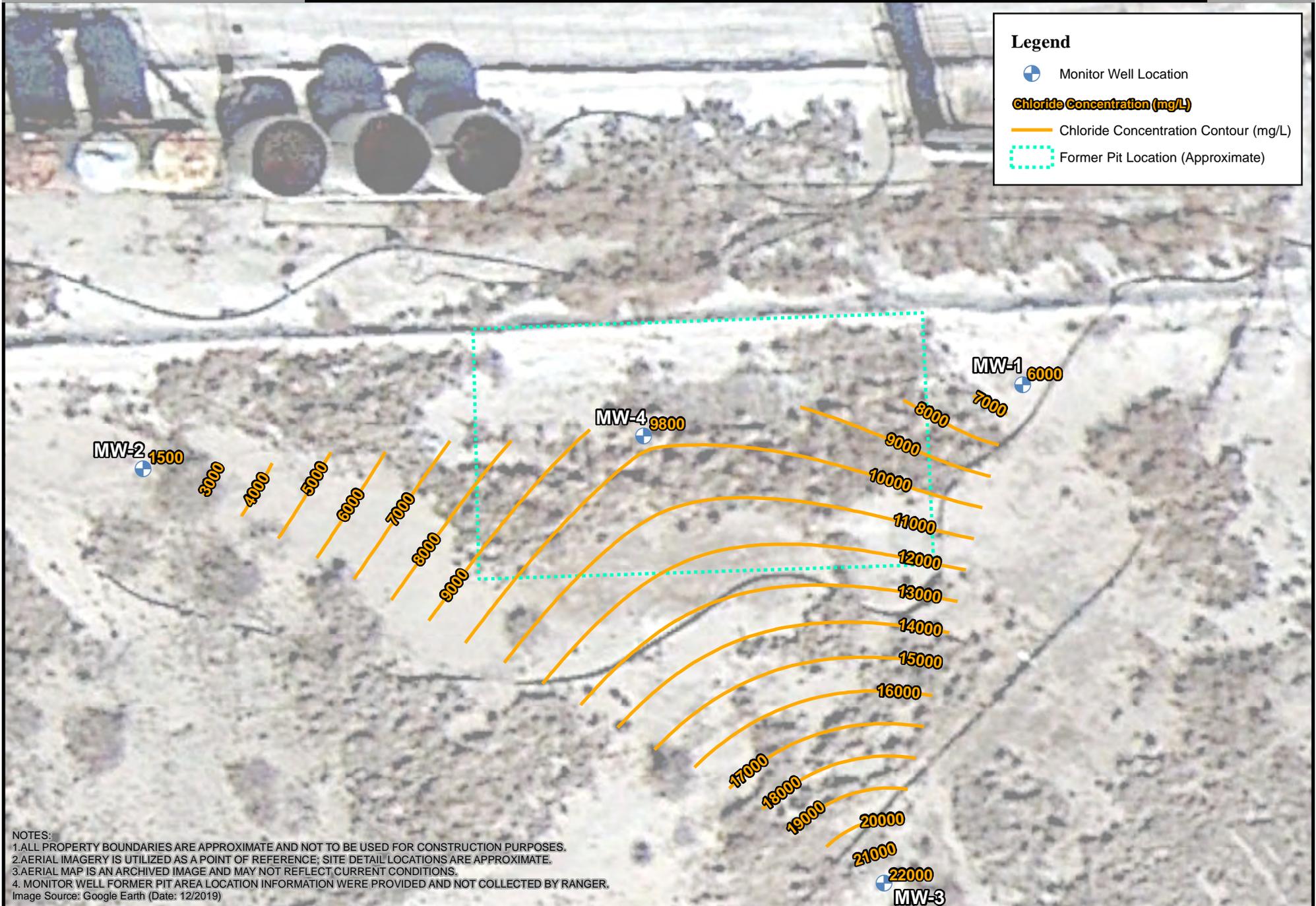


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 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
 1:300

N

**Chloride Isoconcentration Map**  
 (Sample Date: 04/19/2018)  
 Inex Pit  
 EOG Resources, Inc.

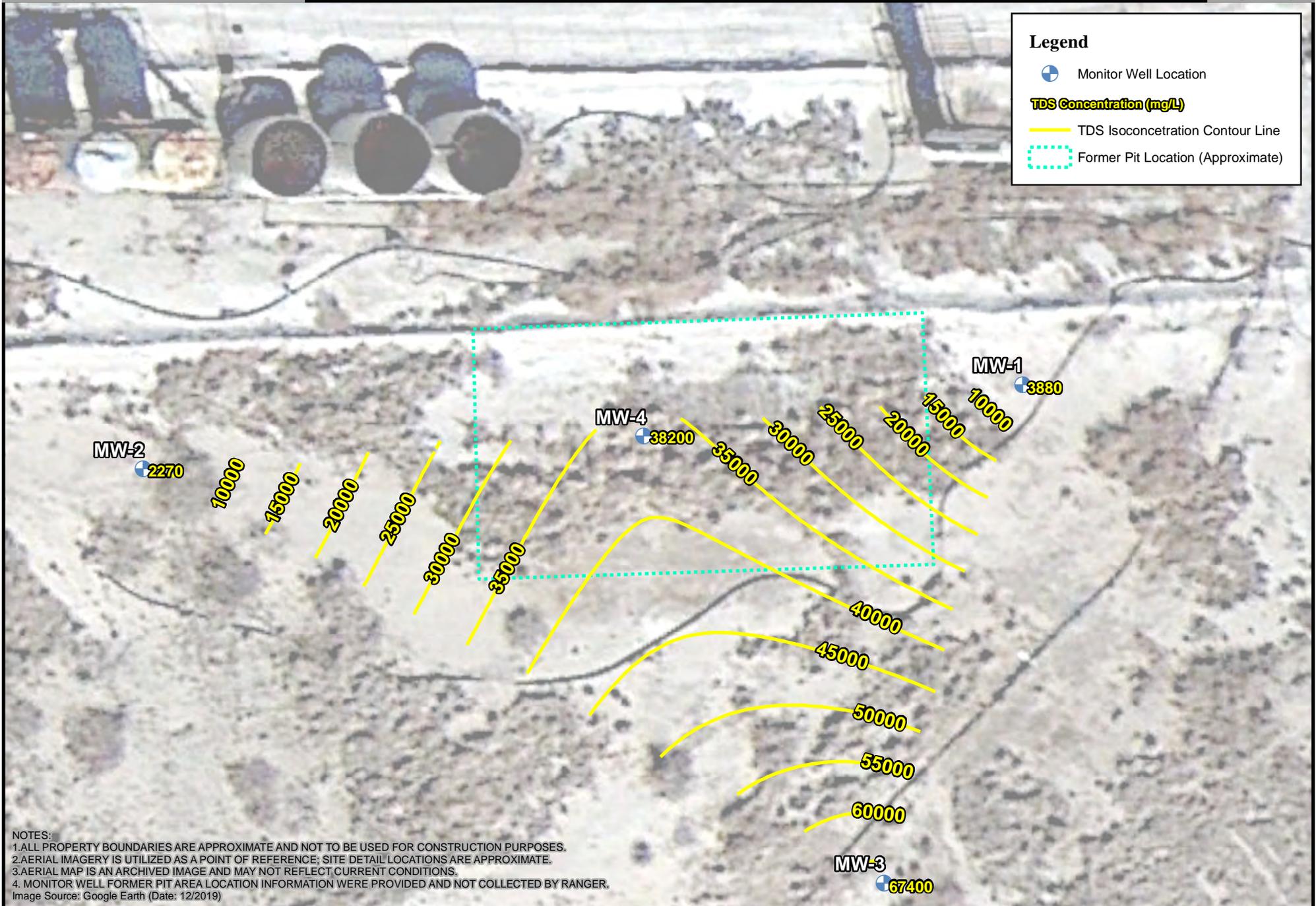


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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
 1:300

N

**Chloride Isoconcentration Map**  
 (Sample Date: 08/04/2022)  
 Inex Pit  
 EOG Resources, Inc.

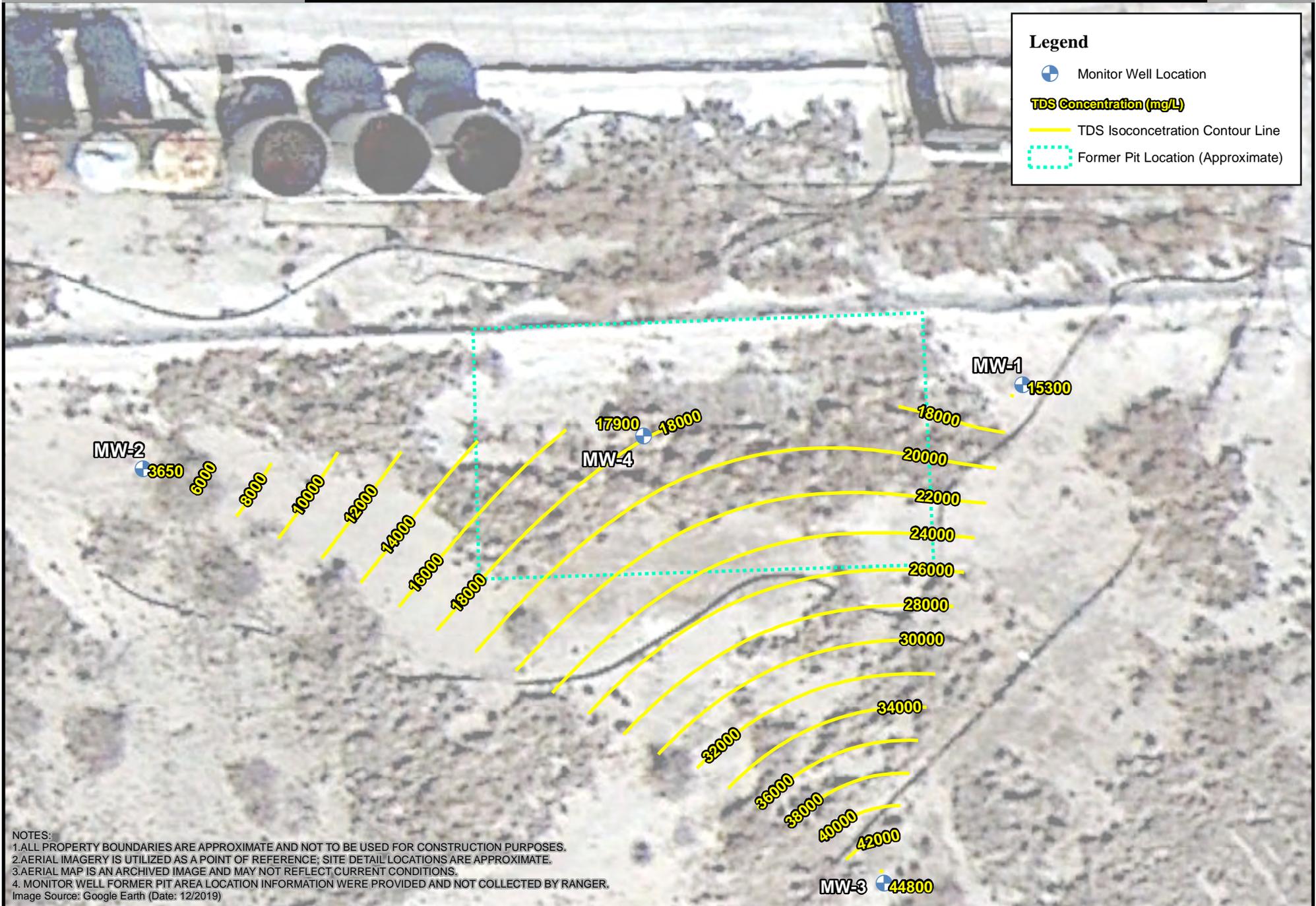


0 5 10 20 30 40 Feet

1:300

N

**Total Dissolved Solids Isoconcentration Map**  
 (Sample Date:09/19/2002)  
 Inex Pit  
 EOG Resources, Inc.

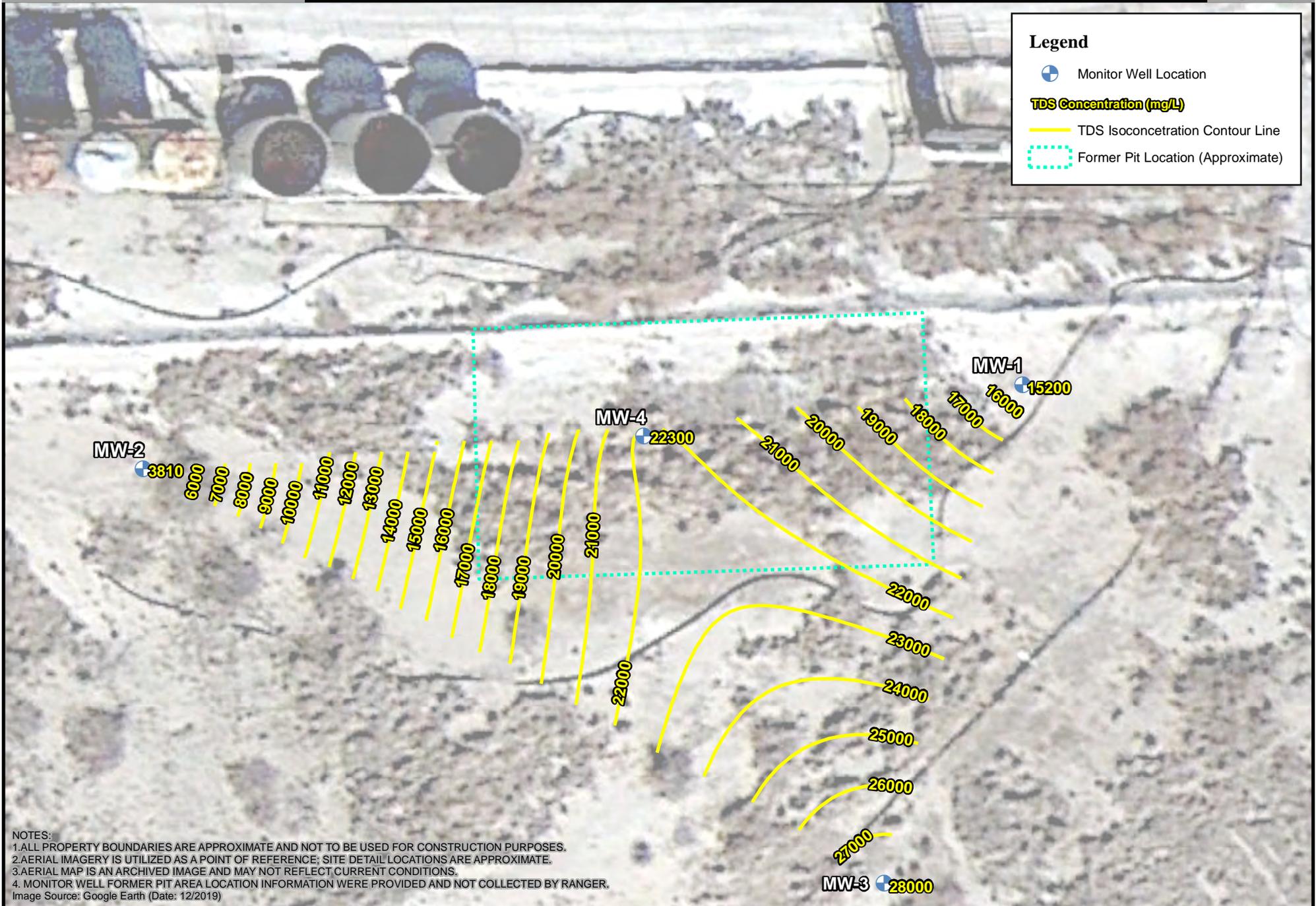


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 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40 Feet  
 1:300

N

**Total Dissolved Solids Isoconcentration Map**  
 (Sample Date: 03/17/2012)  
 Inex Pit  
 EOG Resources, Inc.

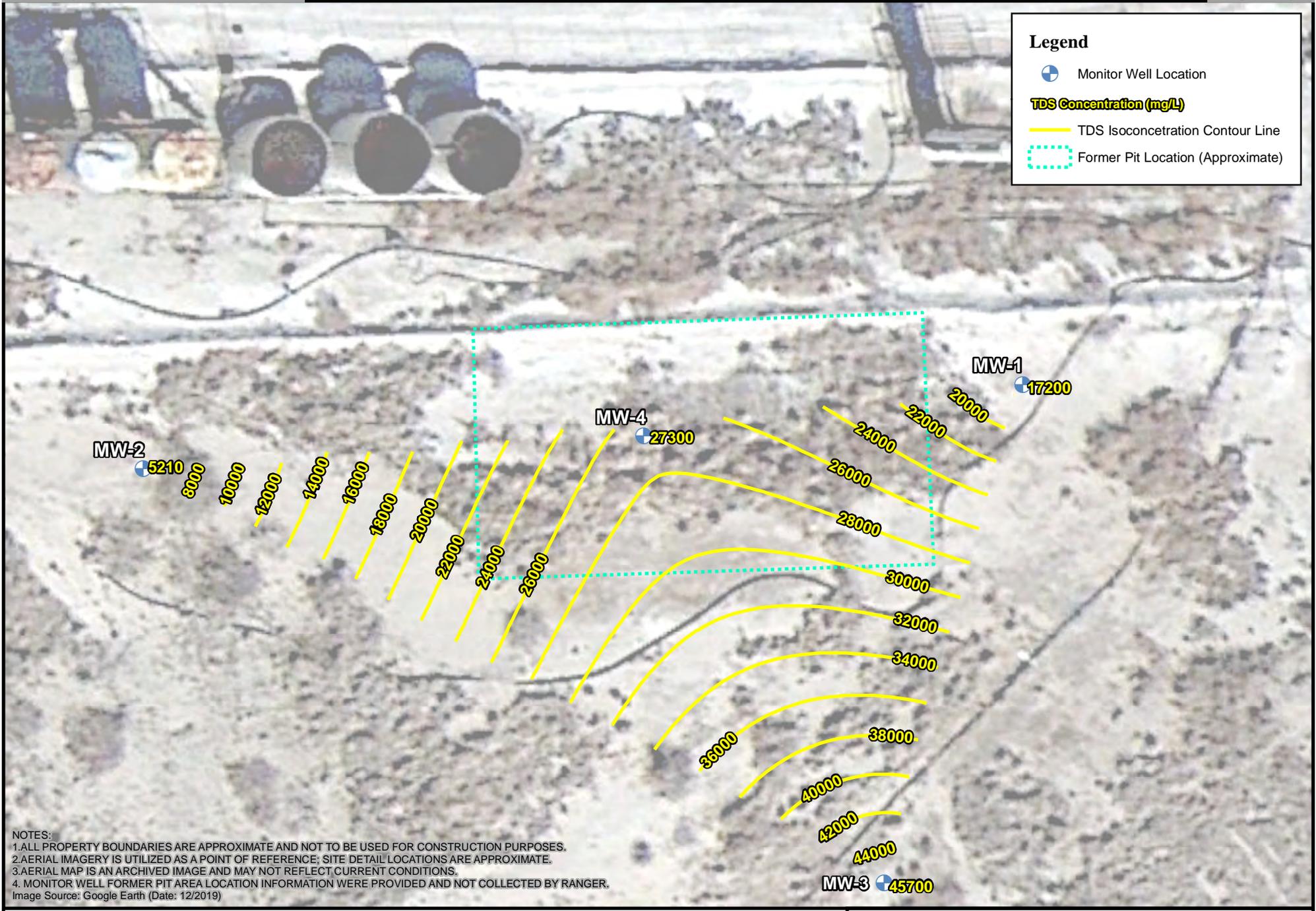


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 Image Source: Google Earth (Date: 12/2019)

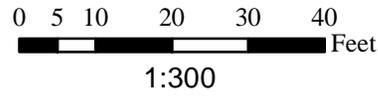
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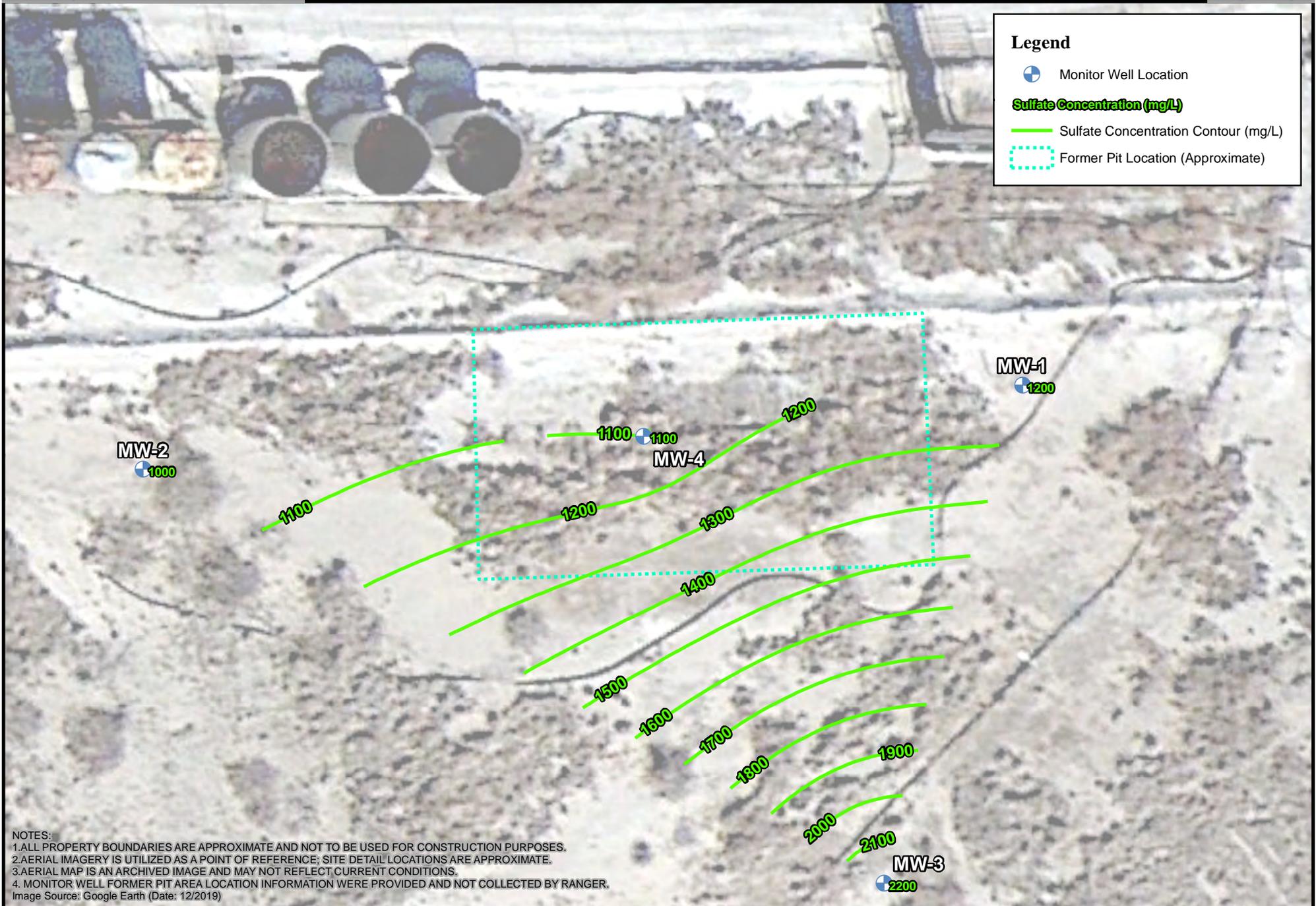
**Total Dissolved Solids Isoconcentration Map**  
 (Sample Date: 04/19/2018)  
 Inex Pit  
 EOG Resources, Inc.



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 Image Source: Google Earth (Date: 12/2019)



**Total Dissolved Solids Isoconcentration Map**  
 (Sample Date: 08/04/2022)  
 Inex Pit  
 EOG Resources, Inc.



**Legend**

- Monitor Well Location
- Sulfate Concentration (mg/L)**
- Sulfate Concentration Contour (mg/L)
- Former Pit Location (Approximate)

NOTES:  
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 Image Source: Google Earth (Date: 12/2019)

0 5 10 20 30 40  
 Feet  
 1:300

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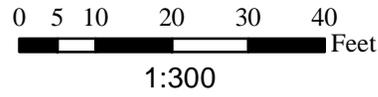
**Sulfate Isoconcentration Map**  
 (Sample Date: 03/17/2012)  
 Inex Pit  
 EOG Resources, Inc.



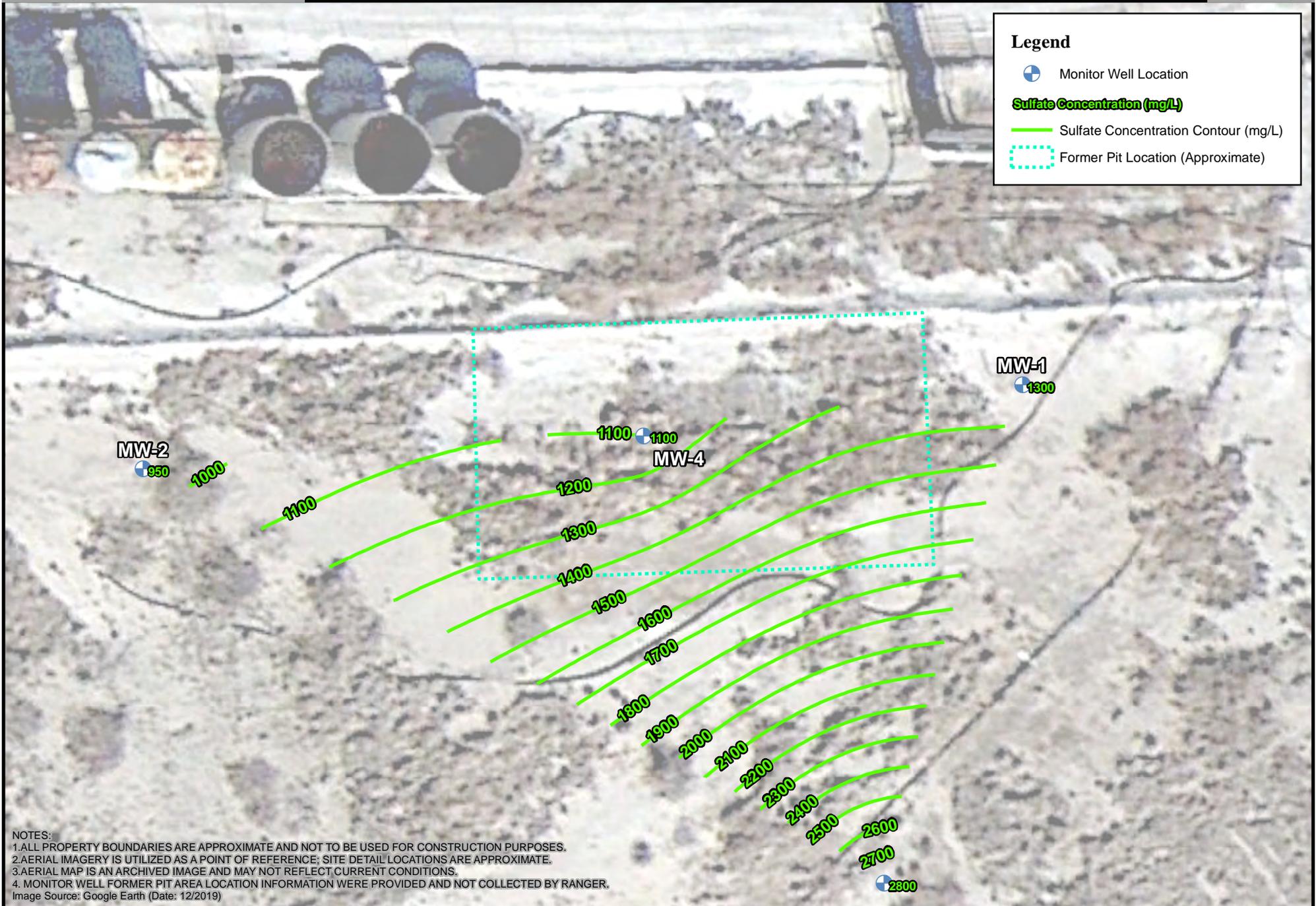
**Legend**

- Monitor Well Location
- Sulfate Concentration (mg/L)**
- Sulfate Concentration Contour (mg/L)
- Former Pit Location (Approximate)

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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 Image Source: Google Earth (Date: 12/2019)



**Sulfate Isoconcentration Map**  
 (Sample Date: 04/19/2018)  
 Inex Pit  
 EOG Resources, Inc.

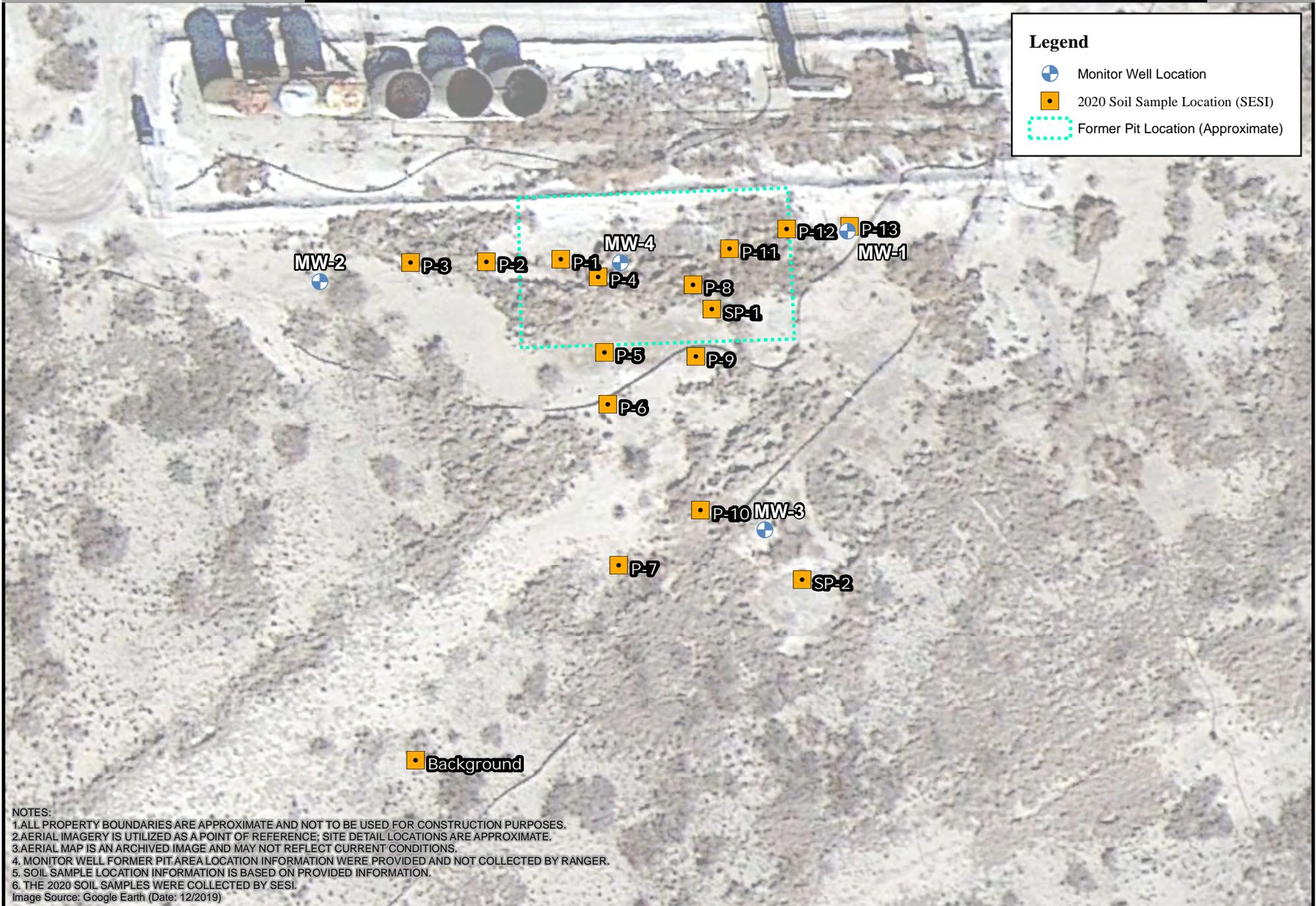


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 Image Source: Google Earth (Date: 12/2019)

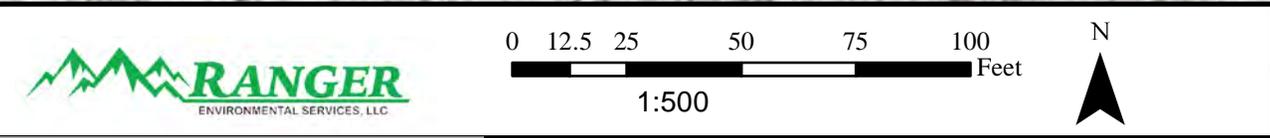
0 5 10 20 30 40 Feet  
 1:300

N

**Sulfate Isoconcentration Map**  
 (Sample Date: 08/04/2022)  
 Inex Pit  
 EOG Resources, Inc.



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 4. MONITOR WELL FORMER PIT AREA LOCATION INFORMATION WERE PROVIDED AND NOT COLLECTED BY RANGER.  
 5. SOIL SAMPLE LOCATION INFORMATION IS BASED ON PROVIDED INFORMATION.  
 6. THE 2020 SOIL SAMPLES WERE COLLECTED BY SESI.  
 Image Source: Google Earth (Date: 12/2019)



**August 2020 Soil Sample Location Map**  
 Inex Pit  
 EOG Resources, Inc.



## TABLES

Well Gauging Data

Groundwater EPA Method 300.0: Anions

Groundwater Dissolved Metals (Table 1 of 2)

Groundwater Dissolved Metals (Table 2 of 2)

Groundwater TPH and VOC Data Summary

Groundwater Specific Conductance, pH, Alkalinity, and TDS

Soil TPH, BTEX & Chloride Data Summary

**WELL GAUGING DATA  
INEX PIT  
EDDY COUNTY, NEW MEXICO  
AP-24**

WELL NUMBER	DATE	CASING ELEV. (FT)	DEPTH TO WATER (FT-BTOC)	LNAPL THICKNESS (FT)	GW ELEVATION (FT)	SCREENED INTERVAL (FT-BGS)
MW-1	9/18/2002	3301.73	53.23	0.00	3248.50	40-70
MW-1	9/19/2002	3301.73	53.24	0.00	3248.49	40-70
MW-1	11/3/2004	3301.73	51.75	0.00	3249.98	40-70
MW-1	12/1/2004	3301.73	---	0.00	---	40-70
MW-1	12/15/2004	3301.73	51.75	0.00	3249.98	40-70
MW-1	12/21/2004	3301.73	50.35	0.00	3251.38	40-70
MW-1	12/30/2004	3301.73	50.09	0.00	3251.64	40-70
MW-1	2/10/2005	3301.73	48.94	0.00	3252.79	40-70
MW-1	3/6/2018	3301.73	44.50	0.00	3257.23	40-70
MW-1	4/19/2018	3301.73	45.12	0.00	3256.61	40-70
MW-1	4/21/2019	3302.91	45.93	0.00	3256.98	40-70
MW-1	10/28/2019	3302.91	47.70	0.00	3255.21	40-70
MW-1	9/17/2020	3302.91	47.75	0.00	3255.16	40-70
MW-1	8/23/2021	3302.91	47.05	0.00	3255.86	40-70
MW-2	9/18/2002	3301.67	52.82	0.00	3248.85	35-65
MW-2	9/19/2002	3301.67	54.11	0.00	3247.56	35-65
MW-2	11/3/2004	3301.67	52.86	0.00	3248.81	35-65
MW-2	12/1/2004	3301.67	51.87	0.00	3249.80	35-65
MW-2	12/15/2004	3301.67	51.51	0.00	3250.16	35-65
MW-2	12/21/2004	3301.67	51.18	0.00	3250.49	35-65
MW-2	12/30/2004	3301.67	50.89	0.00	3250.78	35-65
MW-2	2/10/2005	3301.67	49.63	0.00	3252.04	35-65
MW-2	3/6/2018	3301.67	44.81	0.00	3256.86	35-65
MW-2	4/19/2018	3301.67	45.81	0.00	3255.86	35-65
MW-2	4/21/2019	3303.37	46.46	0.00	3256.91	35-65
MW-2	10/28/2019	3303.37	48.08	0.00	3255.29	35-65
MW-2	9/17/2020	3303.37	48.30	0.00	3255.07	35-65
MW-2	8/23/2021	3303.37	48.20	0.00	3255.17	35-65
MW-3	9/18/2002	3302.19	54.14	0.00	3248.05	30-60
MW-3	9/19/2002	3302.19	52.95	0.00	3249.24	30-60
MW-3	11/3/2004	3302.19	52.68	0.00	3249.51	30-60
MW-3	12/1/2004	3302.19	52.41	0.00	3249.78	30-60
MW-3	12/15/2004	3302.19	52.20	0.00	3249.99	30-60
MW-3	12/21/2004	3302.19	52.08	0.00	3250.11	30-60
MW-3	12/30/2004	3302.19	51.92	0.00	3250.27	30-60
MW-3	2/10/2005	3302.19	51.27	0.00	3250.92	30-60
MW-3	3/6/2018	3302.19	44.84	0.00	3257.35	30-60

**WELL GAUGING DATA  
INEX PIT  
EDDY COUNTY, NEW MEXICO  
AP-24**

<b>WELL NUMBER</b>	<b>DATE</b>	<b>CASING ELEV. (FT)</b>	<b>DEPTH TO WATER (FT-BTOC)</b>	<b>LNAPL THICKNESS (FT)</b>	<b>GW ELEVATION (FT)</b>	<b>SCREENED INTERVAL (FT-BGS)</b>
MW-3	4/19/2018	3302.19	45.17	0.00	3257.02	30-60
MW-3	4/21/2019	3302.89	46.33	0.00	3256.56	30-60
MW-3	10/28/2019	3302.89	48.12	0.00	3254.77	30-60
MW-3	9/17/2020	3302.89	47.76	0.00	3255.13	30-60
MW-3	8/23/2021	3302.89	47.57	0.00	3255.32	30-60
MW-4	9/18/2002	3301.02	53.11	0.00	3247.91	35-60
MW-4	9/19/2002	3301.02	53.43	0.00	3247.59	35-60
MW-4	11/3/2004	3301.02	50.95	0.00	3250.07	35-60
MW-4	12/1/2004	3301.02	49.77	0.00	3251.25	35-60
MW-4	12/15/2004	3301.02	49.36	0.00	3251.66	35-60
MW-4	12/21/2004	3301.02	48.97	0.00	3252.05	35-60
MW-4	12/30/2004	3301.02	48.62	0.00	3252.40	35-60
MW-4	2/10/2005	3301.02	47.16	0.00	3253.86	35-60
MW-4	3/6/2018	3301.02	43.23	0.00	3257.79	35-60
MW-4	4/19/2018	3301.02	44.72	0.00	3256.30	35-60
MW-4	4/21/2019	3302.22	45.05	0.00	3257.17	35-60
MW-4	10/28/2019	3302.22	46.82	0.00	3255.40	35-60
MW-4	9/17/2020	3302.22	47.12	0.00	3255.10	35-60
MW-4	8/23/2021	3302.22	47.02	0.00	3255.20	35-60

## Notes:

1. Elevations referenced to a temporary on-site benchmark.
2. BTOC = below top of casing

GROUNDWATER EPA METHOD 300.0: ANIONS INEX PIT EDDY COUNTY, NEW MEXICO AP-24							
All Values Presented in Parts Per Million (mg/L) unless otherwise noted							
SAMPLE ID	DATE	Fluoride	Chloride	Bromide	Phosphorus, Orthophosphate (As P)	Sulfate	Nitrate+Nitrite as N
SB-1	10/19/2000	---	17,725	---	---	---	---
MW-1	9/19/2002	---	1,110	---	---	---	---
MW-1	11/3/2004	---	3,099	---	---	---	---
MW-1	3/17/2012	< 2.0	9,400	2.8	< 5.0	1,200	< 40
MW-1	6/18/2012	< 2.0	8,100	7.1	<0.50	1,200	< 4.0
MW-1	9/12/2012	< 2.0	5,600	< 2.0	< 25	1,100	< 10
MW-1	12/6/2012	< 2.0	4,400	< 5.0	< 10	1,000	< 10
MW-1	3/12/2013	< 2.0	7,000	2.7	< 10	1,100	< 4.0
MW-1	6/27/2013	< 1.0	5,100	2.5	< 0.50	980	< 4.0
MW-1	4/19/2018	< 2.0	6,400	3.4	< 10	1,300	< 10
MW-1	3/21/2019	< 0.50	8,400	2.7	< 2.5	1,400	< 10
MW-1	10/28/2019	< 0.50	6,200	1.8	< 2.5	1,300	0.51
MW-1	9/17/2020	< 0.50	7,900	3.8	< 2.5	1,200	< 10
MW-1	8/23/2021	< 0.50	8,400	2	< 2.5	1,200	< 10
MW-1	3/21/2022	< 2.0	7,500	< 2.0	< 10	1,100	< 10
MW-1	8/4/2022	< 2.0	6,000	3.8	< 10	1,300	< 10
MW-2	9/19/2002	---	319	---	---	---	---
MW-2	11/3/2004	---	636	---	---	---	---
MW-2	3/17/2012	0.68	1,200	0.59	< 5.0	1000	< 1.0
MW-2	6/18/2012	0.96	1,000	0.98	< 0.50	940	< 1.0
MW-2	9/12/2012	< 2.0	900	0.49	< 10	910	< 2.0
MW-2	12/6/2012	0.64	850	< 2.0	< 10	790	< 2.0
MW-2	3/12/2013	0.56	1,100	0.63	< 0.50	940	< 1.0
MW-2	6/27/2013	1.1	840	0.6	< 0.50	990	< 1.0
MW-2	4/19/2018	1.1	1,200	0.63	< 0.50	990	1.3
MW-2	3/21/2019	< 0.50	1,600	0.6	< 2.5	990	< 1.0
MW-2	10/28/2019	< 0.50	1,300	0.64	< 2.5	970	0.62
MW-2	9/17/2020	0.64	1,300	0.86	< 2.5	840	< 1.0
MW-2	8/23/2021	< 0.50	1,500	0.92	< 2.5	880	< 2.0
MW-2	3/21/2022	< 2.0	1,600	< 2.0	< 0.50	870	< 2.0
MW-2	8/4/2022	< 2.0	1,500	0.94	< 10	950	< 1.0
MW-3	9/19/2002	---	37,200	---	---	---	---
MW-3	11/3/2004	---	38,988	---	---	---	---
MW-3	3/17/2012	< 2.0	27,000	8.6	< 5.0	2,200	< 100
MW-3	6/18/2012	< 5.0	28,000	17	< 10	2,400	< 20
MW-3	9/12/2012	< 10	29,000	8.8	< 50	2,300	< 20
MW-3	12/6/2012	2.5	26,000	< 20	< 2.5	2,200	< 40
MW-3	3/12/2013	< 2.0	28,000	10	< 10	2,200	< 20
MW-3	6/27/2013	< 1.0	23,000	11	< 10	2,000	< 20
MW-3	4/19/2018	< 2.0	14,000	6.2	< 10	2,000	11
MW-3	3/21/2019	< 2.0	18,000	4.5	< 2.5	2,500	< 20
MW-3	10/28/2019	< 2.0	25,000	8.8	< 10	2,200	< 20
MW-3	9/17/2020	< 2.0	13,000	5.9	< 2.5	2,100	< 10
MW-3	8/23/2021	< 0.50	13,000	4	< 2.5	2,300	< 10
MW-3	3/21/2022	< 0.50	11,000	5.2	< 2.5	2,200	< 10
MW-3	8/4/2022	< 2.0	22,000	11	< 10	2,800	< 20
MW-4	9/19/2002	---	21,300	---	---	---	---
MW-4	11/3/2004	---	4,599	---	---	---	---
MW-4	3/17/2012	< 2.0	11,000	3.2	< 5.0	1,100	< 10
MW-4	6/18/2012	< 2.0	9,000	6.6	< 0.50	1,000	< 4.0
MW-4	9/12/2012	< 2.0	7,700	2.8	< 10	970	< 10
MW-4	12/6/2012	< 2.0	7,300	8.2	< 10	930	< 10
MW-4	3/12/2013	< 2.0	7,200	3.2	< 10	990	< 4.0
MW-4	6/27/2013	< 1.0	6,600	3.4	< 0.50	940	< 4.0
MW-4	4/19/2018	< 2.0	10,000	5	< 10	960	< 10

GROUNDWATER EPA METHOD 300.0: ANIONS INEX PIT EDDY COUNTY, NEW MEXICO AP-24							
All Values Presented in Parts Per Million (mg/L) unless otherwise noted							
SAMPLE ID	DATE	Fluoride	Chloride	Bromide	Phosphorus, Orthophosphate (As P)	Sulfate	Nitrate+Nitrite as N
MW-4	3/21/2019	<b>1.9</b>	<b>12,000</b>	3.3	< 2.5	<b>1,100</b>	< 10
MW-4	10/28/2019	< 0.50	<b>11,000</b>	3.2	< 2.5	<b>1,000</b>	< 10
MW-4	9/17/2020	< 0.50	<b>10,000</b>	4.6	< 2.5	<b>1,000</b>	< 10
MW-4	8/23/2021	< 0.50	<b>10,000</b>	2.2	< 2.5	<b>1,000</b>	< 10
MW-4	3/21/2022	<2.0	<b>9,600</b>	<2.0	<10	<b>950</b>	<10
MW-4	8/4/2022	<2.0	<b>9,800</b>	6.8	<10	<b>1,100</b>	<10
<b>20.6.2.3103 NMAC GW STANDARDS</b> (<10,000 mg/L)							
				---	---		
<b>A. Human Health Standards</b>		<b>1.6</b>					<b>10<sup>1</sup></b>
<b>B. Other Standards for Domestic Water Supply</b>			<b>250</b>			<b>600</b>	
<b>C. Standards for Irrigation Use</b>							
Notes:							
1. This standard is for nitrate. The nitrite standard is 1.0 mg/L.							
2. Exceedances of the listed closure criteria highlighted in bold, red type.							

**GROUNDWATER DISSOLVED METALS (TABLE 1 OF 2)**  
**INEX PIT**  
**EDDY COUNTY, NEW MEXICO**  
**AP-24**

All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	Aluminum	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Iron	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Silver	Sodium	Zinc
MW-1	3/17/2012	---	0.033	---	---	< 0.0020	1,500	< 0.0060	---	0.028	540	0.004	---	---	8.8	< 0.0050	3,300	0.012
MW-1	6/18/2012	---	0.041	---	---	< 0.0020	1,800	< 0.0060	---	0.026	480	0.0036	---	---	7.9	< 0.0050	3,500	0.013
MW-1	9/12/2012	---	0.027	---	---	< 0.0020	1,100	< 0.0060	---	0.071	390	0.0086	---	---	6.2	< 0.0050	2,100	0.01
MW-1	12/6/2012	---	0.029	---	---	< 0.0020	930	< 0.0060	---	0.039	360	0.0044	---	---	6.2	< 0.0050	1,900	0.011
MW-1	3/12/2013	---	0.032	---	---	< 0.0020	1,200	< 0.0060	---	0.026	420	0.0043	---	---	7.9	< 0.0050	2,500	< 0.010
MW-1	6/27/2013	---	0.031	---	---	< 0.0020	1,200	< 0.0060	---	< 0.020	370	0.0034	---	---	7.3	< 0.25	1,900	0.014
MW-1	4/19/2018	< 0.020	0.022	< 0.0020	---	< 0.0020	1,100	< 0.0060	< 0.0060	0.02	440	< 0.0020	< 0.0080	< 0.010	6	0.023	3,200	0.026
MW-1	3/21/2019	< 0.020	0.028	< 0.0020	0.13	< 0.0020	1,300	< 0.0060	< 0.0060	0.073	510	0.0077	< 0.0080	< 0.010	6.4	0.019	4,000	0.02
MW-1	10/28/2019	< 0.020	0.026	0.0025	0.13	< 0.0020	1,300	< 0.0060	< 0.0060	< 0.020	430	0.0026	< 0.0080	< 0.010	9.3	0.031	3,100	0.02
MW-1	9/17/2020	< 0.10	0.034	< 0.010	< 0.20	< 0.010	1,400	< 0.030	< 0.030	< 0.10	530	< 0.010	< 0.040	< 0.050	7.3	< 0.025	3,600	< 0.050
MW-1	8/23/2021	< 0.10	0.028	< 0.010	< 0.20	< 0.010	1,400	< 0.030	< 0.030	0.031	490	< 0.010	< 0.040	< 0.050	9.3	< 0.025	3,800	< 0.050
MW-1	3/21/2022	< 0.10	0.031	< 0.010	< 0.20	< 0.010	1,600	< 0.030	< 0.030	0.029	570	0.011	< 0.040	< 0.050	9.3	< 0.025	4,200	< 0.050
MW-1	8/4/2022	< 0.20	0.026	< 0.020	< 0.40	< 0.020	1,200	< 0.060	< 0.060	< 0.20	450	< 0.02	< 0.08	< 0.10	< 10	< 0.050	2,700	< 0.10
MW-2	3/17/2012	---	0.017	---	---	< 0.0020	580	< 0.0060	---	0.038	230	0.0037	---	---	2.8	< 0.0050	240	< 0.010
MW-2	6/18/2012	---	0.017	---	---	< 0.0020	520	< 0.0060	---	0.041	190	0.0036	---	---	2.3	< 0.0050	210	0.01
MW-2	9/12/2012	---	0.015	---	---	< 0.0020	480	< 0.0060	---	0.032	180	0.0024	---	---	2.3	< 0.0050	170	< 0.010
MW-2	12/6/2012	---	0.018	---	---	< 0.0020	470	< 0.0060	---	0.028	180	0.0026	---	---	2.7	< 0.0050	180	0.024
MW-2	3/12/2013	---	0.017	---	---	< 0.0020	510	< 0.0060	---	0.03	190	0.0027	---	---	2.6	< 0.0050	210	< 0.010
MW-2	6/27/2013	---	0.016	---	---	< 0.0020	470	< 0.0060	---	< 0.020	160	< 0.0020	---	---	2.6	< 0.025	170	0.015
MW-2	4/19/2018	< 0.020	0.014	< 0.0020	---	< 0.0020	580	< 0.0060	< 0.0060	< 0.020	210	< 0.0020	< 0.0080	< 0.010	2.5	0.012	270	0.063
MW-2	3/21/2019	< 0.020	0.016	< 0.0020	0.076	< 0.0020	630	< 0.0060	< 0.0060	< 0.020	220	< 0.0020	< 0.0080	< 0.010	2.5	0.0082	340	0.021
MW-2	10/28/2019	< 0.020	0.017	< 0.0020	0.083	< 0.0020	580	< 0.0060	< 0.0060	< 0.020	190	0.0024	< 0.0080	< 0.010	2.9	0.015	260	0.02
MW-2	9/17/2020	< 0.10	0.016	< 0.010	< 0.20	< 0.010	590	< 0.030	< 0.030	< 0.10	230	< 0.010	< 0.040	< 0.050	< 5.0	< 0.025	320	< 0.050
MW-2	8/23/2021	< 0.020	0.019	< 0.0020	0.09	< 0.0020	620	< 0.0060	< 0.0060	0.025	230	0.0047	< 0.0080	< 0.010	3.1	< 0.0050	360	0.058
MW-2	3/21/2022	< 0.020	0.020	< 0.0020	0.093	< 0.0020	660	< 0.0060	< 0.0060	0.026	260	0.004	< 0.0080	< 0.010	3.3	< 0.0050	430	0.012
MW-2	8/4/2022	< 0.20	< 0.020	< 0.020	< 0.40	< 0.020	650	< 0.060	< 0.060	< 0.20	240	< 0.02	< 0.08	< 0.10	< 10	< 0.050	350	< 0.10
MW-3	3/17/2012	---	0.076	---	---	< 0.010	2,200	< 0.030	---	0.15	880	0.24	---	---	48	< 0.025	15,000	< 0.050
MW-3	6/18/2012	---	0.069	---	---	< 0.010	2,200	< 0.030	---	0.8	770	0.2	---	---	29	< 0.025	14,000	0.15
MW-3	9/12/2012	---	0.21	---	---	< 0.010	2,300	< 0.030	---	2.1	830	1.1	---	---	29	< 0.025	13,000	0.053
MW-3	12/6/2012	---	0.074	---	---	< 0.010	2,100	< 0.030	---	0.18	730	0.2	---	---	47	< 0.025	15,000	< 0.050
MW-3	3/12/2013	---	0.1	---	---	< 0.010	2,000	< 0.060	---	3.3	720	0.4	---	---	40	< 0.025	14,000	< 0.10
MW-3	6/27/2013	---	0.061	---	---	< 0.010	2,300	< 0.030	---	0.13	840	0.31	---	---	35	< 0.25	12,000	0.1
MW-3	4/19/2018	< 0.020	0.024	< 0.0020	---	< 0.0020	1,400	< 0.0060	< 0.0060	0.022	530	0.24	< 0.0080	< 0.010	19	0.027	8,500	0.07
MW-3	3/21/2019	< 0.020	0.033	< 0.0020	0.43	< 0.0020	1,300	< 0.0060	< 0.0060	0.022	540	0.22	< 0.0080	< 0.010	21	0.02	9,000	0.033
MW-3	10/28/2019	0.03	0.038	0.0036	0.37	< 0.0020	1,700	< 0.0060	< 0.0060	0.046	620	0.24	< 0.0080	< 0.010	45	0.039	9,400	0.045
MW-3	9/17/2020	< 0.10	0.032	< 0.010	0.39	< 0.010	1,400	< 0.030	< 0.030	< 0.10	540	0.23	< 0.040	< 0.050	20	< 0.025	6,800	< 0.050
MW-3	8/23/2021	< 0.10	0.026	< 0.010	0.46	< 0.010	1,200	< 0.030	< 0.030	0.047	460	0.14	< 0.040	< 0.050	26	< 0.025	7,600	0.11
MW-3	3/21/2022	< 0.10	0.023	< 0.010	0.51	< 0.010	1,200	< 0.030	< 0.030	< 0.020	480	0.12	< 0.040	< 0.050	25	< 0.025	7,900	< 0.050
MW-3	8/4/2022	< 0.20	0.038	< 0.020	0.56	< 0.020	1,800	< 0.060	< 0.060	< 0.20	650	0.28	< 0.08	< 0.10	25	< 0.050	13,000	< 0.10
MW-4	3/17/2012	---	0.043	---	---	< 0.0020	2,100	< 0.0060	---	< 0.10	700	0.0052	---	---	7.7	< 0.0050	2,600	0.011
MW-4	6/18/2012	---	0.046	---	---	< 0.0020	2,000	< 0.0060	---	0.03	660	0.009	---	---	7.1	< 0.0050	2,700	0.017

GROUNDWATER DISSOLVED METALS (TABLE 1 OF 2)  
 INEX PIT  
 EDDY COUNTY, NEW MEXICO  
 AP-24

All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	Aluminum	Barium	Beryllium	Boron	Cadmium	Calcium	Chromium	Cobalt	Iron	Magnesium	Manganese	Molybdenum	Nickel	Potassium	Silver	Sodium	Zinc
MW-4	9/12/2012	---	0.039	---	---	< 0.0020	1,700	< 0.0060	---	0.026	600	0.013	---	---	6.8	< 0.0050	2,100	0.011
MW-4	12/6/2012	---	0.043	---	---	< 0.0020	1,800	< 0.0060	---	0.031	550	0.016	---	---	7.6	< 0.0050	2,100	< 0.010
MW-4	3/12/2013	---	0.04	---	---	< 0.0020	1,900	< 0.0060	---	< 0.020	640	0.017	---	---	10	< 0.0050	2,800	< 0.010
MW-4	6/27/2013	---	0.039	---	---	< 0.0020	1,700	< 0.0060	---	< 0.020	580	0.027	---	---	8	< 0.25	2,000	< 0.010
MW-4	4/19/2018	< 0.020	0.034	< 0.0020	---	< 0.0020	2,300	< 0.0060	< 0.0060	< 0.020	790	0.012	< 0.0080	0.011	11	0.041	4,100	0.056
MW-4	3/21/2019	< 0.020	0.041	< 0.0020	0.22	< 0.0020	2,100	< 0.0060	< 0.0060	0.025	770	0.013	< 0.0080	< 0.010	10	0.03	3,800	0.018
MW-4	10/28/2019	< 0.020	0.042	<b>0.0041</b>	0.18	< 0.0020	2,300	< 0.0060	< 0.0060	< 0.020	770	0.01	< 0.0080	< 0.010	9	<b>0.051</b>	3,300	0.025
MW-4	9/17/2020	< 0.10	0.046	< 0.010	0.21	< 0.010	2,300	< 0.030	< 0.030	< 0.10	780	0.013	< 0.040	< 0.050	9.7	< 0.025	3,300	< 0.050
MW-4	8/23/2021	< 0.10	0.04	< 0.010	< 0.20	< 0.010	2,200	< 0.030	< 0.030	0.035	720	0.011	< 0.040	< 0.050	11	< 0.025	3,300	0.051
MW-4	3/21/2022	< 0.10	0.043	< 0.010	< 0.20	< 0.010	2,400	< 0.030	< 0.030	0.02	810	< 0.010	< 0.040	< 0.050	11	< 0.025	3,600	< 0.050
MW-4	8/4/2022	< 0.20	0.043	< 0.020	< 0.40	< 0.020	2,300	< 0.060	< 0.060	< 0.20	790	0.05	< 0.08	< 0.10	< 10	< 0.050	3,300	< 0.10

<b>20.6.2.3103 NMAC GW STANDARDS</b> (<10,000 mg/L)	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
<b>A. Human Health Standards</b>		<b>2</b>	<b>0.004</b>			<b>0.005</b>		<b>0.05</b>								<b>0.05</b>		
<b>B. Other Standards for Domestic Water Supply</b>										<b>1.0</b>		<b>0.2</b>						<b>10</b>
<b>C. Standards for Irrigation Use</b>		<b>5.0</b>			<b>0.75</b>				<b>0.05</b>				<b>1.0</b>	<b>0.2</b>				

Notes:

1. Exceedances of the listed closure criteria highlighted in bold, red type.

**GROUNDWATER DISSOLVED METALS (TABLE 2 OF 2)**  
**INEX PIT**  
**EDDY COUNTY, NEW MEXICO**  
**AP-24**

All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	Antimony	Arsenic	Copper	Lead	Mercury	Selenium	Thallium	Uranium
MW-1	3/17/2012	---	< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.013	---	0.012
MW-1	6/18/2012	---	< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.016	---	0.013
MW-1	9/12/2012	---	< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.013	---	0.011
MW-1	12/6/2012	---	< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.0083	---	0.011
MW-1	3/12/2013	---	< 0.0050	< 0.0060	0.0052	< 0.00020	0.0086	---	0.012
MW-1	6/27/2013	---	< 0.010	< 0.0060	< 0.0050	< 0.00020	0.05	---	0.012
MW-1	4/19/2018	---	0.0087	< 0.0050	< 0.0050	< 0.00020	0.0084	---	0.01
MW-1	3/21/2019	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.00020	< 0.0010	< 0.0050	0.0099
MW-1	10/28/2019	< 0.010	< 0.010	< 0.010	< 0.0050	---	< 0.010	< 0.0050	0.011
MW-1	9/17/2020	< 0.010	< 0.010	< 0.030	< 0.0050	---	< 0.010	< 0.0050	0.01
MW-1	8/23/2021	< 0.010	< 0.010	< 0.030	< 0.0050	---	< 0.010	< 0.0025	0.011
MW-1	3/21/2022	<0.020	<0.020	<0.020	<0.010	---	<0.020	<0.0050	<0.010
MW-1	8/4/2022	<0.010	<0.010	<0.010	<0.0050	---	<0.010	<0.0025	0.0091
MW-2	3/17/2012	---	0.0011	< 0.0060	< 0.0050	< 0.00020	0.0067	---	0.0072
MW-2	6/18/2012	---	0.0014	< 0.0060	< 0.0050	< 0.00020	0.0075	---	0.0076
MW-2	9/12/2012	---	0.0013	< 0.0060	< 0.0010	< 0.00020	0.0069	---	0.0075
MW-2	12/6/2012	---	< 0.0010	< 0.0060	< 0.0010	< 0.00020	0.0067	---	0.0089
MW-2	3/12/2013	---	< 0.0010	< 0.0060	< 0.0050	< 0.00020	0.0073	---	0.0081
MW-2	6/27/2013	---	0.0023	< 0.0060	< 0.0050	< 0.00020	0.013	---	0.0077
MW-2	4/19/2018	---	< 0.0050	< 0.0010	< 0.0025	< 0.00020	0.0061	---	0.0066
MW-2	3/21/2019	< 0.0010	< 0.0010	< 0.0010	< 0.0025	< 0.00020	0.0054	< 0.0025	0.0073
MW-2	10/28/2019	< 0.0050	< 0.0050	< 0.0050	< 0.0025	---	0.0053	< 0.0025	0.0073
MW-2	9/17/2020	< 0.010	< 0.010	< 0.030	< 0.0050	---	< 0.010	< 0.0050	0.0064
MW-2	8/23/2021	< 0.010	< 0.010	< 0.0060	< 0.0050	---	< 0.010	< 0.0025	0.0072
MW-2	3/21/2022	<0.010	<0.010	<0.010	<0.0050	---	<0.010	<0.0025	0.0064
MW-2	8/4/2022	<0.010	<0.010	<0.010	<0.0050	---	<0.010	<0.0025	0.0064
MW-3	3/17/2012	---	0.0065	< 0.030	< 0.025	0.00056	0.034	---	0.015
MW-3	6/18/2012	---	< 0.020	< 0.030	< 0.025	0.00021	0.049	---	< 0.020
MW-3	9/12/2012	---	<b>0.016</b>	< 0.030	< 0.010	0.00027	<b>0.052</b>	---	0.018
MW-3	12/6/2012	---	< 0.010	< 0.030	< 0.0050	< 0.0010	0.033	---	0.02
MW-3	3/12/2013	---	< 0.010	< 0.030	< 0.025	0.00033	0.028	---	0.016
MW-3	6/27/2013	---	<b>0.035</b>	< 0.030	< 0.25	0.00045	<b>0.21</b>	---	< 0.020
MW-3	4/19/2018	---	<b>0.011</b>	< 0.0050	< 0.010	< 0.0010	0.011	---	0.012
MW-3	3/21/2019	< 0.020	< 0.0010	< 0.010	< 0.010	< 0.00020	0.016	< 0.010	0.011

GROUNDWATER DISSOLVED METALS (TABLE 2 OF 2)									
INEX PIT									
EDDY COUNTY, NEW MEXICO									
AP-24									
All Values Presented in Parts Per Million (mg/L)									
SAMPLE ID	DATE	Antimony	Arsenic	Copper	Lead	Mercury	Selenium	Thallium	Uranium
MW-3	10/28/2019	< 0.010	< 0.010	< 0.010	< 0.0050	---	0.018	< 0.0050	0.012
MW-3	9/17/2020	< 0.010	< 0.010	< 0.030	< 0.0050	---	0.015	< 0.0050	0.012
MW-3	8/23/2021	< 0.010	< 0.010	< 0.030	< 0.0050	---	0.019	< 0.0025	0.012
MW-3	3/21/2022	<0.020	<0.020	<0.020	<0.010	---	<0.020	<0.0050	0.011
MW-3	8/4/2022	<0.020	<0.020	<0.020	<0.010	---	<0.020	<0.0050	0.014
MW-4	3/17/2012	---	< 0.0050	< 0.030	< 0.0050	< 0.00020	0.011	---	0.017
MW-4	6/18/2012	---	< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.016	---	0.018
MW-4	9/12/2012	---	< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.017	---	0.016
MW-4	12/6/2012	---	< 0.0050	< 0.0060	< 0.0050	< 0.00020	0.01	---	0.016
MW-4	3/12/2013	---	< 0.010	< 0.0060	< 0.0050	< 0.00020	< 0.010	---	0.015
MW-4	6/27/2013	---	<b>0.012</b>	< 0.0060	< 0.0050	< 0.00020	<b>0.066</b>	---	0.017
MW-4	4/19/2018	---	<b>0.014</b>	< 0.0050	< 0.010	< 0.00020	< 0.010	---	0.014
MW-4	3/21/2019	< 0.0050	< 0.0050	< 0.0050	< 0.0025	< 0.00020	< 0.0050	< 0.0025	0.015
MW-4	10/28/2019	< 0.010	< 0.010	< 0.010	< 0.0050	---	< 0.010	< 0.0050	0.014
MW-4	9/17/2020	< 0.010	< 0.010	< 0.030	< 0.0050	---	< 0.010	< 0.0050	0.014
MW-4	8/23/2021	< 0.010	< 0.010	< 0.030	< 0.0050	---	< 0.010	< 0.0025	0.015
MW-4	3/21/2022	<0.010	<0.010	<0.010	<0.0050	---	<0.010	<0.0025	0.015
MW-4	8/4/2022	<0.020	<0.020	<0.020	<0.010	---	<0.020	<0.0050	0.013
<b>20.6.2.3103 NMAC GW STANDARDS</b> <b>(&lt;10,000 mg/L)</b>									
<b>A. Human Health Standards</b>		<b>0.006</b>	<b>0.01</b>		<b>0.015</b>	<b>0.002</b>	<b>0.05</b>	<b>0.002</b>	<b>0.03</b>
<b>B. Other Standards for Domestic Water Supply</b>				<b>1.0</b>					
<b>C. Standards for Irrigation Use</b>									
Notes:									
1. Exceedances of the listed closure criteria highlighted in bold, red type.									

**GROUNDWATER TPH AND VOC DATA SUMMARY**  
**INEX PIT**  
**EDDY COUNTY, NEW MEXICO**  
**AP-24**

All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	TPH TOTAL	TPH GRO	TPH DRO	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalene
SB-1	10/19/2000	<1.00	<0.50	<0.50	---	0.088	0.007	0.056	0.082	---	---	---	---	---
MW-1	9/19/2002	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	---	---	---	---	---
MW-1	11/3/2004	---	---	---	---	< 0.0020	< 0.0020	< 0.0020	<0.0060	---	---	---	---	---
MW-1	3/17/2012	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010	< 0.0020	<0.0040	<0.0040
MW-1	6/18/2012	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-1	9/12/2012	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-1	12/6/2012	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-1	3/12/2013	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-1	6/27/2013	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-1	4/19/2018	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-1	3/21/2019	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	---	---
MW-1	10/28/2019	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-1	9/17/2020	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-1	8/23/2021	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-1	3/21/2022	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-1	8/4/2022	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-2	9/19/2002	---	---	---	---	<0.0010	< 0.0010	< 0.0010	< 0.0010	---	---	---	---	---
MW-2	11/3/2004	---	---	---	---	<0.0020	<0.0020	<0.0020	<0.0060	---	---	---	---	---
MW-2	3/17/2012	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010	< 0.0020	<0.0040	<0.0040
MW-2	6/18/2012	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-2	9/12/2012	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-2	12/6/2012	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-2	3/12/2013	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-2	6/27/2013	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-2	4/19/2018	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-2	3/21/2019	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	---	---
MW-2	10/28/2019	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-2	9/17/2020	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-2	8/23/2021	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-2	3/21/2022	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-2	8/4/2022	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-3	9/19/2002	---	---	---	---	<0.0010	< 0.0010	< 0.0010	< 0.0010	---	---	---	---	---
MW-3	11/3/2004	---	---	---	---	<0.0020	<0.0020	<0.0020	<0.0060	---	---	---	---	---
MW-3	3/17/2012	---	---	---	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0040	< 0.0020	< 0.0020	< 0.0040	<0.0080	<0.0080
MW-3	6/18/2012	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-3	9/12/2012	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-3	12/6/2012	---	---	---	---	<0.0020	<0.0020	<0.0020	<0.0040	---	---	<0.0040	---	---
MW-3	3/12/2013	---	---	---	---	<0.0020	<0.0020	<0.0020	<0.0040	---	---	<0.0040	---	---
MW-3	6/27/2013	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-3	4/19/2018	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-3	3/21/2019	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	---	---
MW-3	10/28/2019	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040

**GROUNDWATER TPH AND VOC DATA SUMMARY**  
**INEX PIT**  
**EDDY COUNTY, NEW MEXICO**  
**AP-24**

All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	TPH TOTAL	TPH GRO	TPH DRO	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	1,2,4-Trimethyl benzene	1,3,5-Trimethyl benzene	Naphthalene	1-Methyl naphthalene	2-Methyl naphthalene
MW-3	9/17/2020	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-3	8/23/2021	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-3	3/21/2022	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-3	8/4/2022	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-4	9/19/2002	---	---	---	---	<0.0010	< 0.0010	< 0.0010	< 0.0010	---	---	---	---	---
MW-4	11/3/2004	---	---	---	---	<0.0020	<0.0020	0.006	<0.0060	---	---	---	---	---
MW-4	3/17/2012	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010	< 0.0020	<0.0040	<0.0040
MW-4	6/18/2012	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-4	9/12/2012	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-4	12/6/2012	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-4	3/12/2013	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-4	6/27/2013	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0020	---	---	< 0.0020	---	---
MW-4	4/19/2018	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-4	3/21/2019	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	---	---
MW-4	10/28/2019	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-4	9/17/2020	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-4	8/23/2021	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-4	3/21/2022	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040
MW-4	8/4/2022	---	---	---	---	< 0.0010	< 0.0010	< 0.0010	< 0.0015	---	---	< 0.0020	<0.0040	<0.0040

**20.6.2.3103 NMAC GW STANDARDS**  
(**<10,000 mg/L**)

<b>A. Human Health Standards</b>	---	---	---	---	---	<b>0.005</b>	<b>1</b>	<b>0.7</b>	<b>0.62</b>	---	---	<b>0.03<sup>1</sup></b>	<b>0.03<sup>1</sup></b>	<b>0.03<sup>1</sup></b>
<b>B. Other Standards for Domestic Water Supply</b>					<b>0.1</b>									
<b>C. Standards for Irrigation Use</b>														

Notes:  
1. The 0.03 mg/L standard is for total naphthalene plus monomethylnaphthalenes.  
2. Exceedances of the listed closure criteria highlighted in bold, red type.

**GROUNDWATER SPECIFIC CONDUCTANCE, pH, ALKALINITY, AND TDS  
INEX PIT  
EDDY COUNTY, NEW MEXICO  
AP-24**

All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	Conductivity µmhos/c	pH	Alkalinity (mg/L)			TDS (mg/L)
				Bicarbonate (As CaCO3)	Carbonate (As CaCO3)	Total Alkalinity (as CaCO3)	
MW-1	9/19/2002	---	---	---	---	---	3,880
MW-1	11/3/2004	---	---	---	---	---	6,796
MW-1	3/17/2012	28,000	7.23	180	< 2.0	180	15,300
MW-1	6/18/2012	31,000	7.03	180	< 2.0	180	15,400
MW-1	9/12/2012	18,000	7.01	170	< 2.0	170	11,700
MW-1	12/6/2012	15,000	6.9	180	< 2.0	180	9,660
MW-1	3/12/2013	25,000	---	190	< 2.0	190	12,700
MW-1	6/27/2013	19,000	7.23	190	< 2.0	190	11,600
MW-1	4/19/2018	27,000	7.30	189.5	< 2.000	189.5	15,200
MW-1	3/21/2019	30,000	6.98	188.8	< 2.000	188.8	16,200
MW-1	10/28/2019	22,000	7.21	226.7	< 2.000	226.7	16,100
MW-1	9/17/2020	31,000	7.14	174.3	< 2.000	174.3	19,000
MW-1	8/23/2021	36,000	---	170.1	< 2.000	170.1	18,100
MW-1	3/21/2022	32,000	7.19	164.2	< 2.000	164.2	19,400
MW-1	8/4/2022	28,000	7.36	176.6	<2.000	176.6	17,200
MW-2	9/19/2002	---	---	---	---	---	2,270
MW-2	11/3/2004	---	---	---	---	---	2,984
MW-2	3/17/2012	4,700	7.45	150	<2.0	150	3,650
MW-2	6/18/2012	4,300	7.3	150	< 2.0	150	3,220
MW-2	9/12/2012	4,200	7.31	160	< 2.0	160	3,140
MW-2	12/6/2012	4,100	7.21	160	< 2.0	160	2,970
MW-2	3/12/2013	4,600	---	150	< 2.0	150	3,430
MW-2	6/27/2013	4,200	7.52	160	< 2.0	160	2,910
MW-2	4/19/2018	5,300	7.47	154.9	< 2.000	154.9	3,810
MW-2	3/21/2019	5,900	7.26	150.2	< 2.000	150.2	4,190
MW-2	10/28/2019	5,400	7.47	156.4	< 2.000	156.4	3,580
MW-2	9/17/2020	6,600	7.55	149.9	< 2.000	149.9	4,520
MW-2	8/23/2021	6,200	---	147.6	< 2.000	147.6	4,510
MW-2	3/21/2022	6,500	7.74	146.6	< 2.000	146.6	4,990
MW-2	8/4/2022	6,300	7.47	151	<2.000	151	5,210
MW-3	9/19/2002	---	---	---	---	---	67,400
MW-3	11/3/2004	---	---	---	---	---	52,200
MW-3	3/17/2012	87,000	7.17	250	< 2.0	250	44,800
MW-3	6/18/2012	86,000	6.89	240	< 2.0	240	44,500
MW-3	9/12/2012	90,000	6.87	250	< 2.0	250	46,100
MW-3	12/6/2012	93,000	6.71	250	< 2.0	250	44,000
MW-3	3/12/2013	90,000	6.76	250	< 2.0	250	47,700
MW-3	6/27/2013	91,000	7.10	240	< 2.0	240	49,400
MW-3	4/19/2018	51,000	7.22	282.7	< 2.000	282.7	28,000
MW-3	3/21/2019	47,000	6.88	288.1	< 2.000	288.1	29,700
MW-3	10/28/2019	89,000	7.13	260.2	< 2.000	260.2	49,100
MW-3	9/17/2020	45,000	7.03	289.7	< 2.000	289.7	25,500
MW-3	8/23/2021	51,000	---	294.2	< 2.000	294.2	27,100
MW-3	3/21/2022	44,000	7.49	314.7	< 2.000	314.7	23,200
MW-3	8/4/2022	84,000	7.13	273.7	<2.000	273.7	45,700
MW-4	9/19/2002	---	---	---	---	---	38,200
MW-4	11/3/2004	---	---	---	---	---	7,996
MW-4	3/17/2012	31,000	7.13	200	< 2.0	200	17,900
MW-4	6/18/2012	32,000	7.02	200	< 2.0	200	15,400
MW-4	9/12/2012	24,000	6.89	190	< 2.0	190	15,700
MW-4	12/6/2012	22,000	6.79	180	< 2.0	180	14,300
MW-4	3/12/2013	28,000	---	190	< 2.0	190	15,900
MW-4	6/27/2013	25,000	7.12	170	< 2.0	170	16,500
MW-4	4/19/2018	40,000	7.07	191.7	< 2.000	191.7	22,300

**GROUNDWATER SPECIFIC CONDUCTANCE, pH, ALKALINITY, AND TDS  
INEX PIT  
EDDY COUNTY, NEW MEXICO  
AP-24**

All Values Presented in Parts Per Million (mg/L)

SAMPLE ID	DATE	Conductivity µmhos/c	pH	Alkalinity (mg/L)			TDS (mg/L)
				Bicarbonate (As CaCO3)	Carbonate (As CaCO3)	Total Alkalinity (as CaCO3)	
MW-4	3/12/2013	28,000	---	190	< 2.0	190	<b>15,900</b>
MW-4	3/21/2019	35,000	6.83	191.7	< 2.000	191.7	<b>19,500</b>
MW-4	10/28/2019	34,000	7.07	190	< 2.000	190	<b>22,200</b>
MW-4	9/17/2020	35,000	7.02	189.9	< 2.000	189.9	<b>22,500</b>
MW-4	8/23/2021	37,000	---	191.9	< 2.000	191.9	<b>20,100</b>
MW-4	3/21/2022	35,000	7.29	196.4	< 2.000	196.4	<b>21,500</b>
MW-4	8/4/2022	37,000	7.03	191.5	<2.000	191.5	<b>27,300</b>

**20.6.2.3103 NMAC GW STANDARDS  
(<10,000 mg/L)**

- A. Human Health Standards**
- B. Other Standards for Domestic Water Supply**
- C. Standards for Irrigation Use**

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**6 to 9**

**1,000**

Notes:

1. Exceedances of the listed closure criteria highlighted in bold, red type.

**SOIL TPH, BTEX & CHLORIDE DATA SUMMARY**  
**INEX PIT**  
**EDDY COUNTY, NEW MEXICO**  
**AP-24**

All Values Presented in Parts Per Million (mg/Kg)

SAMPLE ID	DATE	TPH TOTAL	TPH GRO C6-C10	TPH DRO >C10-C28	TPH MRO >C28-C40	TPH GRO C6-C12	TPH DRO >C12-C35	Benzene	Toluene	Ethylbenzene	Xylenes	BTEX	Laboratory Chloride	Field Chloride Low Range	Field Chloride High Range	Comments
SB-1/15'-16.5'	10/19/2000	<b>1,004</b>	---	---	---	214	790	3.06	1.18	11.5	16.39	32.13	<b>12,230</b>	---	---	
SB-1/19'-21'	10/19/2000	---	---	---	---	---	---	---	---	---	---	---	<b>4,372</b>	---	---	
SB-1/24'-26'	10/19/2000	---	---	---	---	---	---	---	---	---	---	---	<b>2,623</b>	---	---	
SB-1/36'-38'	10/19/2000	---	---	---	---	---	---	---	---	---	---	---	<b>3,978</b>	---	---	
SB-2/17.5'-19.5'	10/19/2000	---	---	---	---	---	---	---	---	---	---	---	<b>1,240</b>	---	---	
SB-3/17'-19'	10/19/2000	---	---	---	---	---	---	---	---	---	---	---	<b>13,471</b>	---	---	
Background/0'-2'	10/19/2000	---	---	---	---	---	---	---	---	---	---	---	44	---	---	
MW-1/35'	9/9/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	<b>10,600</b>	---	---	
MW-1/55'	9/9/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	177	---	---	
MW-1/70'	9/9/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	70.9	---	---	
MW-2/35'	9/10/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	112	---	---	
MW-2/55'	9/10/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	<20	---	---	
MW-2/65'	9/10/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	<20	---	---	
MW-3/30'	9/10/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	106	---	---	
MW-3/50'	9/10/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	<b>603</b>	---	---	
MW-3/60'	9/10/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	<b>7,800</b>	---	---	
MW-4/10'	9/11/2002	<b>4,740</b>	---	---	---	1,570	3,170	6.79	1.56	29.8	47.1	<b>85.25</b>	<b>9,040</b>	---	---	
MW-4/20'	9/11/2002	<b>1,938</b>	---	---	---	588	1,350	5.2	0.565	20.3	9.1	35.165	<b>3,540</b>	---	---	
MW-4/45'	9/11/2002	<10.0	---	---	---	<10.0	<10.0	<0.025	<0.025	<0.025	<0.025	<0.025	<b>993</b>	---	---	
NT-1/4' (P1)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	<60	<112	---	Likely Backfill
NT-1/8' (P1)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	112	---	Likely Backfill
NT-1, W, +25/4' (P2)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	<112	---	Likely Backfill
NT-1, W +50/4' (P3)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	820	---	
NT1-S, 4' (P4)	8/26/2020	<b>43,280</b>	280	26,000	17,000	---	---	7.8	14	12	15	48.8	<b>910</b>	1,332	---	Strong HC Odor
NT1-S, 8' (P4)	8/26/2020	<b>19,370</b>	170	11,000	8,200	---	---	0.68	0.97	6.8	6.6	15.05	<b>1,800</b>	2,128	2,132	
NT-1, S, +25/4' (P5)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	<b>2,300</b>	2,464	2,580	
NT-1, S, +43/4' (P6)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	1,248	---	
NT-1, S, +96/4' (P7)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	164	---	Likely Backfill
NT2-S, 4' (P8)	8/26/2020	<b>8,920</b>	220	5,300	3,400	---	---	0.51	< 0.25	7.4	6.1	14.01	<b>670</b>	884	---	
NT2-S, 8' (P8)	8/26/2020	<b>12,037</b>	37	6,000	6,000	---	---	< 0.12	< 0.25	< 0.25	< 0.50	<0.50	220	232	---	Likely Backfill
NT2-S (DUP), 8' (P8)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	268	---	Likely Backfill
NT-2, S, +24/4' (P9)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	492	---	
NT-2, S, +75/4' (P10)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	---	3,988	
NT1-E 4' (P11)	8/26/2020	<b>28,110</b>	110	16,000	12,000	---	---	0.22	< 0.25	3.7	1.1	5.02	130	---	---	
NT1-E 8' (P11)	8/26/2020	<b>6,369</b>	69	3,500	2,800	---	---	0.29	< 0.099	2	1.1	3.39	190	---	---	
NT-1, E,+20/4' (P12)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	<61	<112	---	Likely Backfill
NT-1, E,+40/4' (P13)	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	<112	---	Likely Backfill
SP-1/4'	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	---	<112	---	Likely Backfill
SP-2 4'	8/26/2020	<46	< 5.0	< 9.3	< 46	---	---	< 0.025	< 0.050	< 0.050	< 0.10	<0.10	<b>8,800</b>	---	10,800	
SP-2, 8'	8/26/2020	12	< 5.0	12	< 45	---	---	< 0.025	< 0.050	< 0.050	< 0.099	<0.099	<b>1,800</b>	2,128	2,348	
Inex Background 4'	8/26/2020	---	---	---	---	---	---	---	---	---	---	---	<b>1,300</b>	1,424	1,220	
<b>19.15.29.12 NMAC Table 1 Closure Criteria for Soils Impacted by a Release (GW ≤ 50')</b>		<b>100</b>	---	---	---	---	---	<b>10</b>	---	---	---	<b>50</b>	<b>600</b>	---	---	---

Notes:

1. Exceedances of the listed closure criteria highlighted in bold and shaded yellow.

# ATTACHMENT 1 – SOIL BORING LOGS



# Soil Boring SB-2

Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
--------------	--------------	-------------	----------------	-----------------	------------------

### Legend

PID Head-space reading in ppm obtained with a photo-ionization detector.

○ Indicates samples selected for laboratory analysis.



### Soil Boring Details

Date Drilled 10 / 19 / 00

Plugged - Surface to TD with Bentonite and hydrated with deionized water.

### Soil Boring Log Details

Soil Boring SB-2

Yates Pet Corp. Inez Pit Eddy, NM



Environmental Technology Group, Inc.

Scale: NTS    Prep By: RS    Checked By: KD

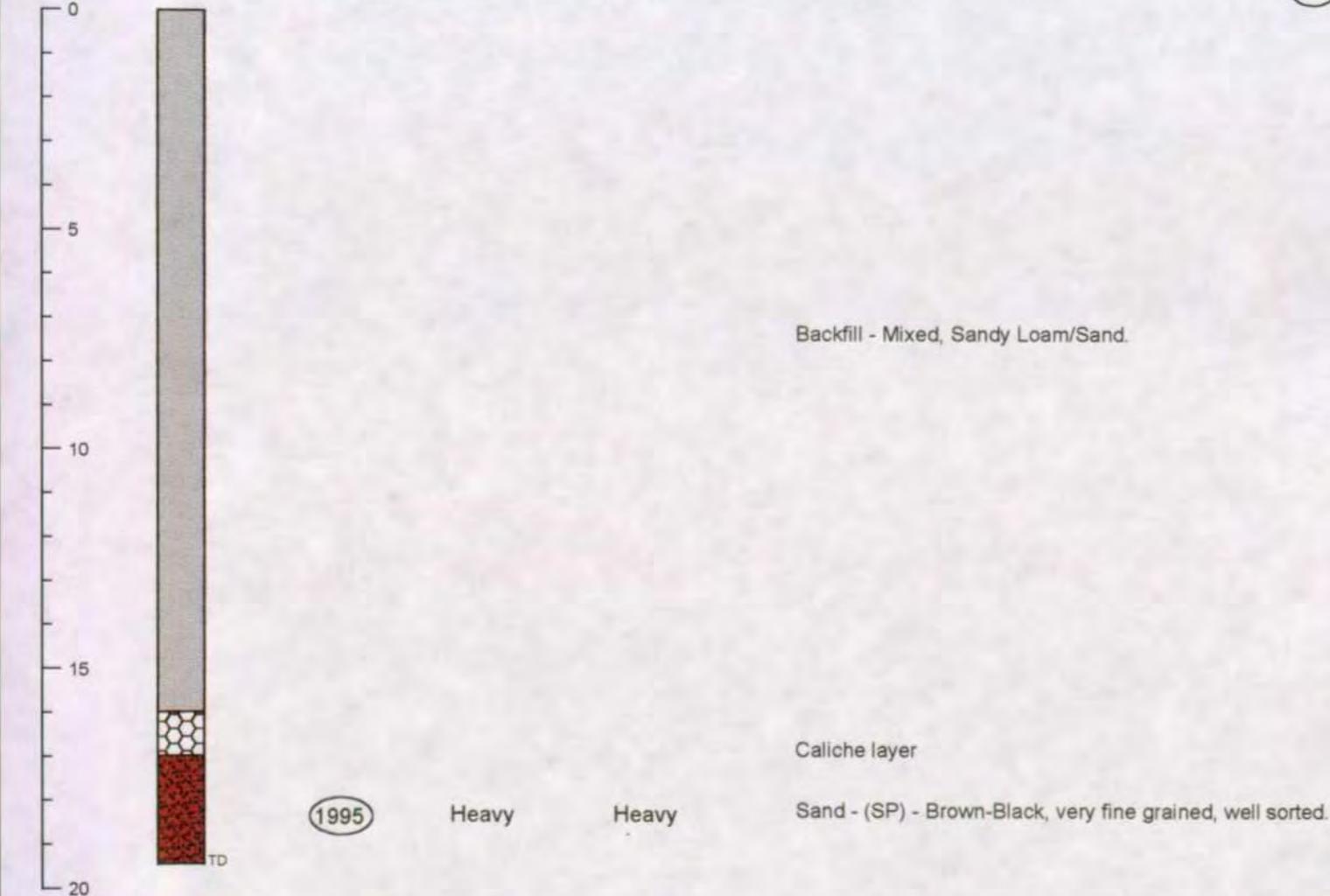
November 2, 2000    ETGI Project # YPC 2200D

# Soil Boring SB-3

Depth (feet)	Soil Columns	PID Reading	Petroleum Odor	Petroleum Stain	Soil Description
--------------	--------------	-------------	----------------	-----------------	------------------

### Legend

PID Head-space reading in ppm obtained with a photo-ionization detector.  
 ○ Indicates samples selected for laboratory analysis.



### Soil Boring Details

Date Drilled 10 / 19 / 00  
 Plugged - Surface to TD with Bentonite and hydrated with deionized water.

### Soil Boring Log Details

Soil Boring SB-3

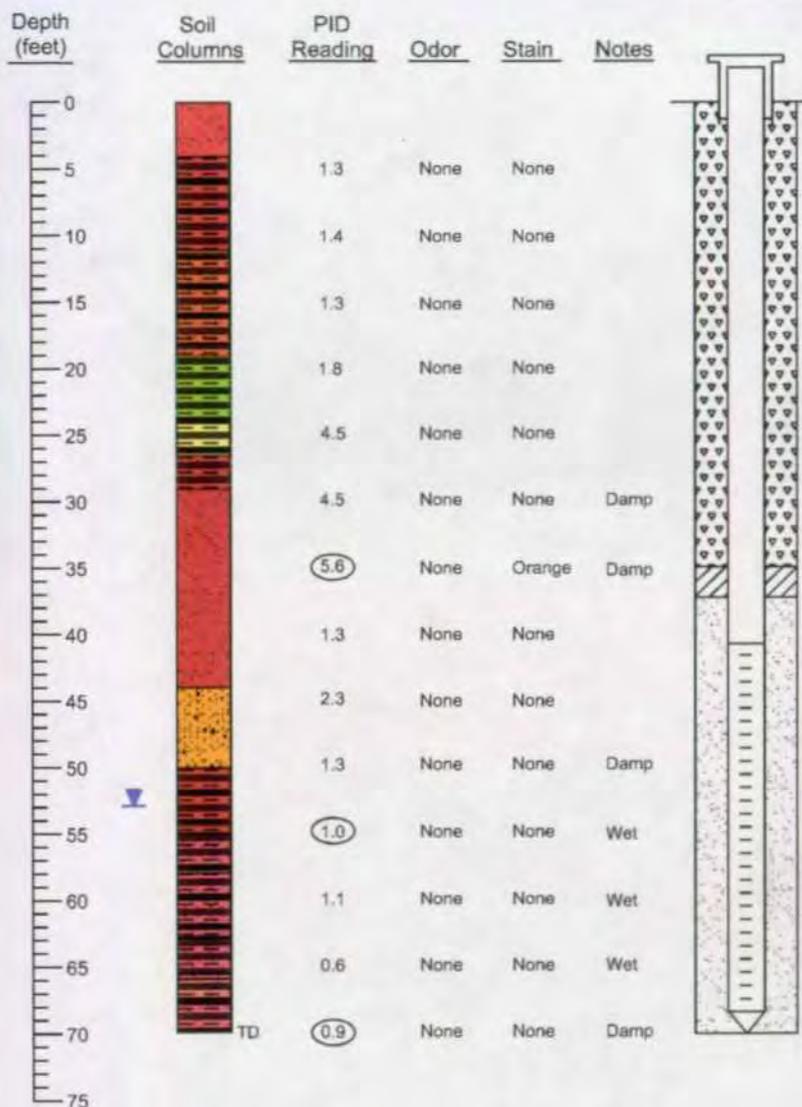
Yates Pet Corp. Inez Pit Eddy, NM



Environmental Technology Group, Inc.

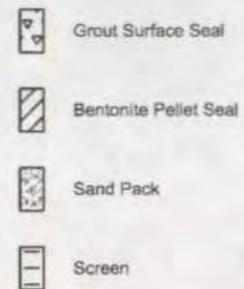
Scale: NTS	Prep By: RS	Checked By: KD
November 2, 2000		ETGI Project # YPC 22000

### Monitoring Well MW - 1



#### Monitoring Well Details

Date Drilled	9 - 9 - 02
Thickness of Bentonite Seal	3 ft
Length of PVC Well Screen	30 ft
Depth of PVC Well	70 ft
Depth of Exploratory Well	70 ft
Depth to Ground Water	53 ft



#### Legend

- Silty Sand - (SM) - Moderate Brown, Very Fine Grained, Loose.
- Sandy Clay - (CL) - Light Brown, Soft.
- Clay - (CL) - Moderate Orange Pink, Medium Soft to Soft, Slightly Sandy, Slightly Fractured, Filled with Sand.
- Sandy Clay - (CL) - Moderate Yellowish Brown, Medium Soft.
- Clay - (CL) - Yellowish Gray to Grayish Yellow, Medium Soft.
- Sandy Clay - (SC) - Light Brown, Medium Soft to Stiff.
- Silty Sand - (SM) - Light Brown, Very Fine Grained, Well Sorted, Damp.
- Silty Sand - (SM) - Light Brown, Very Fine Grained, Well Sorted, Damp.
- Sandy Gravel - (GC) - Grayish Orange to Dark Yellowish Orange, Medium to Course Gravel, Sub-Angular, Fine Sand, Loose, Damp.
- Sandy Clay - (CL) - Light Brown, Soft.
- Sandy Clay - (CL) - Mottled Pale Greenish Yellow and Light Brown, Soft to Moderately Soft, Orange Ferric Staining, Moist.
- Sandy Clay - (CL) - Moderate Greenish Yellow, Soft.
- Sandy Clay - (ML) - Mottled Pale Greenish Yellow, to Light Brown, Soft to Moderate Soft.
- Sandy Clay - (CL) - Moderate Greenish Yellow, Soft.
- Sandy Gravel - (GC) - Pale Olive, Course Sand to Fine Gravel, Sub-Angular Sand, Sub-Angular to Sub-Rounded Gravel, Loose, Wet.
- Sandy Clay - (CL) - Mottled Pale Greenish Yellow to Light Brown, Soft, Moist.

- Indicates samples selected for laboratory analysis.
- ▼ Indicates the ground water level measured on date.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

#### Completion Notes

- The monitoring well was installed on date using hollow stem auger drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from the ground surface.

Boring Log And Monitoring Well Detail

Monitoring Well - MW-1

Yates Petroleum.

Former Inex Pit Site

Eddy County, NM

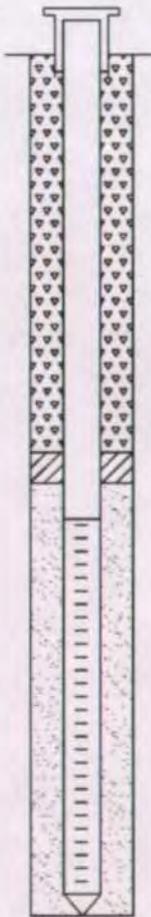


Environmental Technology Group, Inc.

Scale: use scale	Prep By: LGM	Checked By: RE
Oct. 28, 2002	ETGI Project # YA2220	
SE1/4 of the NW 1/4 of Section 26, Township 18 South, Range 26 East		

## Monitoring Well MW - 2

Depth (feet)	Soil Columns	PID Reading	Odor	Stain	Notes
0					
5		0.5	None	None	
10		0.7	None	None	
15		1.9	none	Slight	
20		2.2	None	None	
25		3.4	None	None	
30		1.5	None	Hematitic	
35		3.4	None	None	
40		3.2	None	None	
45		0.7	None	None	
50		0.5	None	None	Damp
55		0.4	None	None	Wet
60		0.5	None	None	Wet
65	TD	0.2	None	None	Wet



### Monitoring Well Details

Date Drilled	9 - 10 - 02
Thickness of Bentonite Seal	2 ft
Length of PVC Well Screen	30 ft
Depth of PVC Well	65 ft
Depth of Exploratory Well	65 ft
Depth to Ground Water	54 ft

- Grout Surface Seal
- Bentonite Pellet Seal
- Sand Pack
- Screen

- Indicates samples selected for laboratory analysis.
- Indicates the ground water level measured on date.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

### Completion Notes

- The monitoring well was installed on date using hollow stem auger drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from the ground surface.

### Legend

- Silty Sand - (SM) - Dark Yellowish Orange, Very Fine Grained, Well Sorted, Loose.
- Caliche - White, Soft, Crumbly, Indurated with Depth.
- Silty Sand - (SM) - Grayish Orange, Very fine grained, Well Sorted.
- Sandy Clay - (CL) - Light Brown, Medium Soft to Stiff, Imbedded Caliche.
- Sand - (SW) - Moderate Orange Pink, Very Fine Grained, Well Sorted, Loose to Medium Dense.
- Sandy Clay - (CL) - Pale Olive, Moderate Soft to Stiff.
- Sandy Clay - (CL) - Mottled, Moderate Reddish-Brown and Moderate Greenish Yellow, Stiff.
- Sandy Clay - (CL) - Moderate Reddish Brown, Hematitic Staining, Very Stiff.
- Sand - (SW) - Moderate Orange Pink, Very Fine Grained, Well Sorted.
- Clay - (OL) - Moderate Greenish Yellow, Medium Soft to Stiff.
- Sandy Gravel - (GC) - Light Brown, Very Fine Grained Sand Course Gravel, Medium Dark Gray Quartz.
- Silty Sand - (SM) - Dark Yellowish Orange, Loose to Medium Dense, Very Fine Grained, Milky Clear Quartz, Sub-Rounded Grains.
- Clay - (CL) - Light Brown to Pale Olive, Soft.
- Clay - (CL) - Pale Olive to Light Brown, Soft.
- Sandy Clay - (CL) - Mottled Light Brown and Pale Olive.
- Sandy Gravel - (SG) - Pale Olive, Fine to Course Grained, Damp.
- Sandy Clay - (CL) - Moderate Brown, Soft, Wet.
- Sandy Clay - (CL) - Pale Greenish Yellow, Medium firm, Gravelly, Fine Sandy Gravel.
- Sandy Clay - (CL) - Moderate Yellowish Brown, Moderate Soft, Wet.
- Sandy Clay - (CL) - Moderate Yellowish Gray, Soft, Wet.
- Clayey Sand - (SC) - Grayish Orange, Very Fine Grained, Poorly Sorted, Slightly Gravelly, Fine.

Boring Log And Monitoring Well Detail

Monitoring Well - MW-2

Yates Petroleum.

Former Inex Pit Site

Eddy County, NM

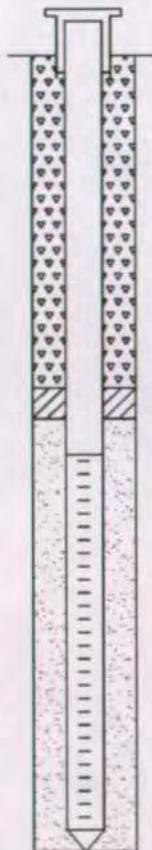


Environmental Technology  
Group, Inc.

Scale: use scale	Prep By: LGM	Checked By: RE
Oct. 28, 2002	ETGI Project # YA2220	
SE1/4 of the NW 1/4 of Section 26, Township 18 South, Range 26 East		

### Monitoring Well MW - 3

Depth (feet)	Soil Columns	PID Reading	Odor	Stain	Notes
0					
5		5.2	None	None	
10		1.8	None	None	
15		0.8	None	None	
20		0.5	None	None	
25		0.7	None	None	
30		0.5	None	None	
35		0.9	None	None	
40		0.8	None	None	
45		0.5	None	None	
50		0.5	None	None	Damp
55		0.4	None	None	Wet
60	TD	0.7	None	Moderate to Heavy	Wet
65					
70					
75					



#### Monitoring Well Details

Date Drilled	9 - 10 - 02
Thickness of Bentonite Seal	2.5 ft
Length of PVC Well Screen	30 ft
Depth of PVC Well	60 ft
Depth of Exploratory Well	60 ft
Depth to Ground Water	49 ft

- Grout Surface Seal
- Bentonite Pellet Seal
- Sand Pack
- Screen

#### Legend

- Sandy Clay - (CL) - Moderate Yellowish Brown, Soft.
- Caliche - White, Moderately Indurated.
- Sandy Clay - (CL) - Light Brown, Fractured, Filled with White Quartz Sand, Very Fine Grained, Soft.
- Clay - (CL) - Moderate Brown, Fractured, Filled with Very Fine Grained Quartz Sand, Imbedded Caliche.
- Clay - (ML) - Yellowish Gray, Moderate Soft to Stiff.
- Caliche - White, Very Soft to Slightly Indurated.
- Sandy Clay - (CL) - Yellowish Gray, Soft.
- Clay - (ML) - Light Brown, Medium Soft to Soft.
- Sand - (SW) - Grayish Orange, Very Fine Grained, Well Sorted.
- Sandy Clay - (CL) - Dark Yellowish Orange, Soft, Very Fine grained Sand.
- Sand - (SW) - Grayish Orange, Very Fine Grained, Loose, Well Sorted.
- Sandy Clay - (CL) - Mottled Moderate Yellowish Brown and Moderate Greenish Yellow, Soft, Moist.
- Sand - (SP) - Grayish Orange, Fine to Course Grained, Poorly Sorted, Gravelly, Wet.
- Sandy Clay - (CL) - Moderate Brown, Soft, Wet.

- Indicates samples selected for laboratory analysis.
- Indicates the ground water level measured on date.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

#### Completion Notes

- The monitoring well was installed on date using hollow stem auger drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from the ground surface.

Boring Log And Monitoring Well Detail

Monitoring Well - MW-3

Yates Petroleum.

Former Inex Pit Site

Eddy County, NM

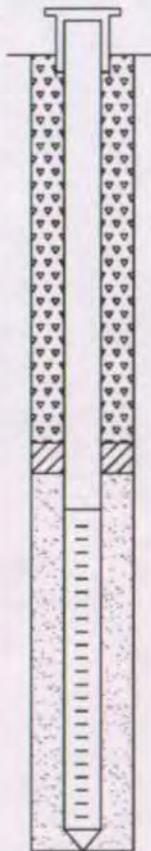


Environmental Technology Group, Inc.

Scale: usa scale	Prep By: LGM	Checked By: RE
Oct. 28, 2002	ETGI Project # YA2220	
SE1/4 of the NW 1/4 of Section 26, Township 18 South, Range 26 East		

### Monitoring Well MW - 4

Depth (feet)	Soil Columns	PID Reading	Odor	Stain	Notes
0		109	Slight	None	
5		(863)	Strong	Heavy	
10		867	Strong	Heavy	
15		(1033)	Strong	Moderate	
20		9.5	None	None	
25		7.1	None	None	
30		8.9	None	None	
35		4.8	None	None	
40		(3.7)	None	None	
45		4.7	None	Orange	Damp
50		3.6	None	None	Wet
55		3.8	None	None	Wet
60	TD				



#### Monitoring Well Details

Date Drilled: 9 - 11 - 02  
 Thickness of Bentonite Seal: 2.0 ft  
 Length of PVC Well Screen: 25 ft  
 Depth of PVC Well: 60 ft  
 Depth of Exploratory Well: 60 ft  
 Depth to Ground Water: 43 ft

- Grout Surface Seal
- Bentonite Pellet Seal
- Sand Pack
- Screen

#### Legend

- Silty Sand - (SM) - Moderate Yellowish Brown, Very Fine Grained, Well Sorted, Loose.
- Sandy Clay - (CL) - Light Bluish Gray to Dark Greenish Gray, Soft, Heavily Stained, Strong Odor.
- Caliche - Grayish Yellow Green, Indurated, Hard, Dark Gray Fractures.
- Sandy Clay - (SC) - Moderate Brown, Soft, Heavy Stain, Dark Blueish Green, Strong Odor.
- Silty Sand - (SM) - Dark Yellowish Orange, With Light Greenish Blue Staining, Fine to Medium Grained Sub-Angular to Rounded, Loose.
- Sandy Clay - (CL) - Moderate Brown, Soft to Medium Soft.
- Sand - (SW) - Grayish Orange, Very Fine to Fine Grained, Sub-Rounded, Loose, Damp.
- Sandy Clay - (GC) - Moderate Yellowish Brown, Gravelly, Fine Gravel to Fine Sand, poorly Sorted, Loose.
- Silty Sand - (SM) - Light Brown, Very Fine to Medium Grained, Poorly Sorted, Loose, Moist.
- Clay - (CL) - Dark Yellowish Brown, Soft, Moist.
- Silty Sand - (SM) - Grayish Orange, Fine to Medium Grained, Sub-Angular to Sub-Rounded, Moderately Sorted.
- Sandy Clay - (CL) - Light Brown, Soft, Damp.
- Sandy Clay - (SC) - dark Yellowish Orange, Soft To Medium Soft, Damp.

- Indicates samples selected for laboratory analysis.
- Indicates the ground water level measured on date.
- PID Head-space reading in ppm obtained with a photo-ionization detector.

#### Completion Notes

- The monitoring well was installed on date using hollow stem auger drilling techniques.
- The well was constructed with 2" ID, 0.020 inch factory slotted, threaded joint, schedule 40 PVC pipe.
- The well is protected with a locked stick up steel cover and a compression cap.
- The lines between material types shown on the profile log represent approximate boundaries. Actual transitions may be gradual.
- The depths indicated are referenced from the ground surface.

Boring Log And Monitoring Well Detail

Monitoring Well - MW-4

Yates Petroleum.

Former Inex Pit Site

Eddy County, NM



Environmental Technology Group, Inc.

Scale: use scale	Prep By: LGM	Checked By: RE
Oct. 28, 2002	ETGI Project # YA2220	
SE1/4 of the NW 1/4 of Section 26, Township 18 South, Range 26 East		

ATTACHMENT 2 - CURRENT SITE  
PHOTOGRAPHS



**PHOTOGRAPH NO. 1 – A current view of the Site with four the four monitor wells and former pit location visible. The view is towards the west.**

*(Approximate GPS: 32.723596, -104.347714)*



**PHOTOGRAPH NO. 2 – A view of the approximate former pit area and monitor wells “MW-4” and “MW-1”. The view is towards the east. (Approximate GPS: 32.723580, -104.348184)**

ATTACHMENT 3 – LABORATORY ANALYTICAL  
REPORTS (2005 - 2022)



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 30, 2012

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 390-7067  
FAX: (575) 393-4388

RE: Yates INEX Pit

OrderNo.: 1203720

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/20/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1203720

Date Reported: 3/30/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-3

Project: Yates INEX Pit

Collection Date: 3/17/2012 11:05:00 AM

Lab ID: 1203720-001

Matrix: AQUEOUS

Received Date: 3/20/2012 12:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Fluoride	ND	2.0		mg/L	20	3/21/2012 4:03:42 AM
Chloride	27,000	1,000		mg/L	2000	3/22/2012 5:51:47 PM
Bromide	8.6	2.0		mg/L	20	3/21/2012 4:03:42 AM
Nitrate+Nitrite as N	ND	100		mg/L	500	3/22/2012 8:20:45 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	3/22/2012 5:26:57 PM
Sulfate	2,200	50		mg/L	100	3/22/2012 5:39:22 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.076	0.010		mg/L	5	3/22/2012 1:59:45 PM
Cadmium	ND	0.010		mg/L	5	3/22/2012 1:59:45 PM
Calcium	2,200	50		mg/L	50	3/28/2012 7:33:56 AM
Chromium	ND	0.030		mg/L	5	3/22/2012 1:59:45 PM
Copper	ND	0.030		mg/L	5	3/22/2012 1:59:45 PM
Iron	0.15	0.10		mg/L	5	3/22/2012 1:59:45 PM
Lead	ND	0.025		mg/L	5	3/22/2012 1:59:45 PM
Magnesium	880	50		mg/L	50	3/27/2012 8:14:22 AM
Manganese	0.24	0.010	*	mg/L	5	3/22/2012 1:59:45 PM
Potassium	48	5.0		mg/L	5	3/22/2012 1:59:45 PM
Silver	ND	0.025		mg/L	5	3/22/2012 1:59:45 PM
Sodium	15,000	200		mg/L	200	3/28/2012 7:37:24 AM
Zinc	ND	0.050		mg/L	5	3/27/2012 8:11:10 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>SNV</b>
Arsenic	0.0065	0.0050		mg/L	5	3/21/2012 6:27:40 PM
Selenium	0.034	0.0050		mg/L	5	3/21/2012 6:27:40 PM
Uranium	0.015	0.010		mg/L	10	3/22/2012 6:18:45 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>JLF</b>
Mercury	0.00056	0.00040		mg/L	2	3/23/2012 3:02:11 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	2.0		µg/L	2	3/24/2012 3:20:06 AM
Toluene	ND	2.0		µg/L	2	3/24/2012 3:20:06 AM
Ethylbenzene	ND	2.0		µg/L	2	3/24/2012 3:20:06 AM
Methyl tert-butyl ether (MTBE)	ND	2.0		µg/L	2	3/24/2012 3:20:06 AM
1,2,4-Trimethylbenzene	ND	2.0		µg/L	2	3/24/2012 3:20:06 AM
1,3,5-Trimethylbenzene	ND	2.0		µg/L	2	3/24/2012 3:20:06 AM
Naphthalene	ND	4.0		µg/L	2	3/24/2012 3:20:06 AM
1-Methylnaphthalene	ND	8.0		µg/L	2	3/24/2012 3:20:06 AM
2-Methylnaphthalene	ND	8.0		µg/L	2	3/24/2012 3:20:06 AM
Xylenes, Total	ND	4.0		µg/L	2	3/24/2012 3:20:06 AM
Surr: 1,2-Dichloroethane-d4	97.0	70-130		%REC	2	3/24/2012 3:20:06 AM
Surr: 4-Bromofluorobenzene	90.1	70-130		%REC	2	3/24/2012 3:20:06 AM
Surr: Dibromofluoromethane	81.6	69.8-130		%REC	2	3/24/2012 3:20:06 AM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

Page 1 of 17

**Analytical Report**

Lab Order **1203720**

Date Reported: **3/30/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Yates INEX Pit

**Collection Date:** 3/17/2012 11:05:00 AM

**Lab ID:** 1203720-001

**Matrix:** AQUEOUS

**Received Date:** 3/20/2012 12:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Surr: Toluene-d8	91.3	70-130		%REC	2	3/24/2012 3:20:06 AM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JLF</b>
Conductivity	87,000	0.50		µmhos/cm	50	3/21/2012 6:07:26 PM
<b>SM4500-H+B: PH</b>						Analyst: <b>JLF</b>
pH	7.17	1.68	H	pH units	1	3/21/2012 3:10:10 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JLF</b>
Bicarbonate (As CaCO3)	250	20		mg/L CaCO3	1	3/21/2012 3:10:10 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	3/21/2012 3:10:10 PM
Total Alkalinity (as CaCO3)	250	20		mg/L CaCO3	1	3/21/2012 3:10:10 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	44,800	400		mg/L	1	3/23/2012 2:44:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

## Analytical Report

Lab Order 1203720

Date Reported: 3/30/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-1

Project: Yates INEX Pit

Collection Date: 3/17/2012 11:40:00 AM

Lab ID: 1203720-002

Matrix: AQUEOUS

Received Date: 3/20/2012 12:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Fluoride	ND	2.0		mg/L	20	3/21/2012 4:28:32 AM
Chloride	9,400	500		mg/L	1000	3/22/2012 7:06:16 PM
Bromide	2.8	2.0		mg/L	20	3/21/2012 4:28:32 AM
Nitrate+Nitrite as N	ND	40		mg/L	200	3/22/2012 8:33:09 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	3/22/2012 6:04:12 PM
Sulfate	1,200	25		mg/L	50	3/22/2012 6:16:36 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.033	0.0020		mg/L	1	3/22/2012 2:02:52 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2012 2:02:52 PM
Calcium	1,500	50		mg/L	50	3/28/2012 7:41:05 AM
Chromium	ND	0.0060		mg/L	1	3/22/2012 2:02:52 PM
Copper	ND	0.0060		mg/L	1	3/22/2012 2:02:52 PM
Iron	0.028	0.020		mg/L	1	3/22/2012 2:02:52 PM
Lead	ND	0.0050		mg/L	1	3/22/2012 2:02:52 PM
Magnesium	540	10		mg/L	10	3/27/2012 8:20:55 AM
Manganese	0.0040	0.0020		mg/L	1	3/22/2012 2:02:52 PM
Potassium	8.8	1.0		mg/L	1	3/22/2012 2:02:52 PM
Silver	ND	0.0050		mg/L	1	3/22/2012 2:02:52 PM
Sodium	3,300	50		mg/L	50	3/28/2012 7:41:05 AM
Zinc	0.012	0.010		mg/L	1	3/27/2012 8:17:45 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>SNV</b>
Arsenic	ND	0.0050		mg/L	5	3/21/2012 6:35:17 PM
Selenium	0.013	0.0050		mg/L	5	3/21/2012 6:35:17 PM
Uranium	0.012	0.0050		mg/L	5	3/21/2012 6:35:17 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>JLF</b>
Mercury	ND	0.00020		mg/L	1	3/22/2012 4:25:56 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	3/24/2012 3:48:12 AM
Toluene	ND	1.0		µg/L	1	3/24/2012 3:48:12 AM
Ethylbenzene	ND	1.0		µg/L	1	3/24/2012 3:48:12 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/24/2012 3:48:12 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2012 3:48:12 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2012 3:48:12 AM
Naphthalene	ND	2.0		µg/L	1	3/24/2012 3:48:12 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2012 3:48:12 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2012 3:48:12 AM
Xylenes, Total	ND	2.0		µg/L	1	3/24/2012 3:48:12 AM
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%REC	1	3/24/2012 3:48:12 AM
Surr: 4-Bromofluorobenzene	91.9	70-130		%REC	1	3/24/2012 3:48:12 AM
Surr: Dibromofluoromethane	79.1	69.8-130		%REC	1	3/24/2012 3:48:12 AM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

Page 3 of 17

**Analytical Report**

Lab Order **1203720**

Date Reported: **3/30/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Yates INEX Pit

**Collection Date:** 3/17/2012 11:40:00 AM

**Lab ID:** 1203720-002

**Matrix:** AQUEOUS

**Received Date:** 3/20/2012 12:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Surr: Toluene-d8	92.7	70-130		%REC	1	3/24/2012 3:48:12 AM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JLF</b>
Conductivity	28,000	0.50		µmhos/cm	50	3/21/2012 6:11:56 PM
<b>SM4500-H+B: PH</b>						Analyst: <b>JLF</b>
pH	7.23	1.68	H	pH units	1	3/21/2012 3:29:08 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JLF</b>
Bicarbonate (As CaCO3)	180	20		mg/L CaCO3	1	3/21/2012 3:29:08 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	3/21/2012 3:29:08 PM
Total Alkalinity (as CaCO3)	180	20		mg/L CaCO3	1	3/21/2012 3:29:08 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	15,300	200		mg/L	1	3/23/2012 2:44:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

## Analytical Report

Lab Order 1203720

Date Reported: 3/30/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-4

Project: Yates INEX Pit

Collection Date: 3/17/2012 12:05:00 PM

Lab ID: 1203720-003

Matrix: AQUEOUS

Received Date: 3/20/2012 12:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Fluoride	ND	2.0		mg/L	20	3/21/2012 4:53:21 AM
Chloride	11,000	500		mg/L	1000	3/22/2012 7:18:41 PM
Bromide	3.2	2.0		mg/L	20	3/21/2012 4:53:21 AM
Nitrate+Nitrite as N	ND	100		mg/L	500	3/22/2012 8:45:33 PM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	3/22/2012 7:55:55 PM
Sulfate	1,100	25		mg/L	50	3/22/2012 8:08:20 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.043	0.0020		mg/L	1	3/27/2012 8:37:58 AM
Cadmium	ND	0.0020		mg/L	1	3/27/2012 8:37:58 AM
Calcium	2,100	50		mg/L	50	3/28/2012 7:44:49 AM
Chromium	ND	0.0060		mg/L	1	3/27/2012 8:37:58 AM
Copper	ND	0.030		mg/L	5	3/22/2012 2:14:20 PM
Iron	ND	0.10		mg/L	5	3/22/2012 2:14:20 PM
Lead	ND	0.0050		mg/L	1	3/27/2012 8:37:58 AM
Magnesium	700	10		mg/L	10	3/27/2012 8:41:26 AM
Manganese	0.0052	0.0020		mg/L	1	3/27/2012 8:37:58 AM
Potassium	7.7	5.0		mg/L	5	3/22/2012 2:14:20 PM
Silver	ND	0.0050		mg/L	1	3/27/2012 8:37:58 AM
Sodium	2,600	50		mg/L	50	3/28/2012 7:44:49 AM
Zinc	0.011	0.010		mg/L	1	3/27/2012 8:37:58 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>SNV</b>
Arsenic	ND	0.0050		mg/L	5	3/22/2012 6:26:40 PM
Selenium	0.011	0.0050		mg/L	5	3/22/2012 6:26:40 PM
Uranium	0.017	0.0050		mg/L	5	3/22/2012 6:26:40 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>JLF</b>
Mercury	ND	0.00020		mg/L	1	3/22/2012 4:27:41 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	3/24/2012 4:16:15 AM
Toluene	ND	1.0		µg/L	1	3/24/2012 4:16:15 AM
Ethylbenzene	ND	1.0		µg/L	1	3/24/2012 4:16:15 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/24/2012 4:16:15 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2012 4:16:15 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2012 4:16:15 AM
Naphthalene	ND	2.0		µg/L	1	3/24/2012 4:16:15 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2012 4:16:15 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2012 4:16:15 AM
Xylenes, Total	ND	2.0		µg/L	1	3/24/2012 4:16:15 AM
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%REC	1	3/24/2012 4:16:15 AM
Surr: 4-Bromofluorobenzene	87.2	70-130		%REC	1	3/24/2012 4:16:15 AM
Surr: Dibromofluoromethane	78.2	69.8-130		%REC	1	3/24/2012 4:16:15 AM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

Page 5 of 17

**Analytical Report**

Lab Order **1203720**

Date Reported: **3/30/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Yates INEX Pit

**Collection Date:** 3/17/2012 12:05:00 PM

**Lab ID:** 1203720-003

**Matrix:** AQUEOUS

**Received Date:** 3/20/2012 12:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b> Analyst: <b>RAA</b>						
Surr: Toluene-d8	94.7	70-130		%REC	1	3/24/2012 4:16:15 AM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b> Analyst: <b>JLF</b>						
Conductivity	31,000	0.50		µmhos/cm	50	3/21/2012 6:16:12 PM
<b>SM4500-H+B: PH</b> Analyst: <b>JLF</b>						
pH	7.13	1.68	H	pH units	1	3/21/2012 3:45:05 PM
<b>SM2320B: ALKALINITY</b> Analyst: <b>JLF</b>						
Bicarbonate (As CaCO3)	200	20		mg/L CaCO3	1	3/21/2012 3:45:05 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	3/21/2012 3:45:05 PM
Total Alkalinity (as CaCO3)	200	20		mg/L CaCO3	1	3/21/2012 3:45:05 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> Analyst: <b>KS</b>						
Total Dissolved Solids	17,900	200		mg/L	1	3/23/2012 2:44:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

## Analytical Report

Lab Order 1203720

Date Reported: 3/30/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-2

Project: Yates INEX Pit

Collection Date: 3/17/2012 12:25:00 PM

Lab ID: 1203720-004

Matrix: AQUEOUS

Received Date: 3/20/2012 12:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Fluoride	0.68	0.10		mg/L	1	3/21/2012 5:30:35 AM
Chloride	1,200	50		mg/L	100	3/22/2012 6:53:51 PM
Bromide	0.59	0.10		mg/L	1	3/21/2012 5:30:35 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	3/21/2012 7:22:16 AM
Phosphorus, Orthophosphate (As P)	ND	5.0	H	mg/L	10	3/22/2012 6:29:01 PM
Sulfate	1,000	25		mg/L	50	3/22/2012 6:41:26 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.017	0.0020		mg/L	1	3/22/2012 2:17:27 PM
Cadmium	ND	0.0020		mg/L	1	3/22/2012 2:17:27 PM
Calcium	580	10		mg/L	10	3/28/2012 7:48:38 AM
Chromium	ND	0.0060		mg/L	1	3/22/2012 2:17:27 PM
Copper	ND	0.0060		mg/L	1	3/22/2012 2:17:27 PM
Iron	0.038	0.020		mg/L	1	3/22/2012 2:17:27 PM
Lead	ND	0.0050		mg/L	1	3/22/2012 2:17:27 PM
Magnesium	230	10		mg/L	10	3/27/2012 8:51:01 AM
Manganese	0.0037	0.0020		mg/L	1	3/22/2012 2:17:27 PM
Potassium	2.8	1.0		mg/L	1	3/22/2012 2:17:27 PM
Silver	ND	0.0050		mg/L	1	3/22/2012 2:17:27 PM
Sodium	240	10		mg/L	10	3/28/2012 7:48:38 AM
Zinc	ND	0.010		mg/L	1	3/27/2012 8:47:51 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>SNV</b>
Arsenic	0.0011	0.0010		mg/L	1	3/22/2012 6:34:35 PM
Selenium	0.0067	0.0010		mg/L	1	3/22/2012 6:34:35 PM
Uranium	0.0072	0.0010		mg/L	1	3/22/2012 6:34:35 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>JLF</b>
Mercury	ND	0.00020		mg/L	1	3/22/2012 4:32:58 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	3/24/2012 4:44:16 AM
Toluene	ND	1.0		µg/L	1	3/24/2012 4:44:16 AM
Ethylbenzene	ND	1.0		µg/L	1	3/24/2012 4:44:16 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/24/2012 4:44:16 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2012 4:44:16 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	3/24/2012 4:44:16 AM
Naphthalene	ND	2.0		µg/L	1	3/24/2012 4:44:16 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2012 4:44:16 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	3/24/2012 4:44:16 AM
Xylenes, Total	ND	2.0		µg/L	1	3/24/2012 4:44:16 AM
Surr: 1,2-Dichloroethane-d4	88.9	70-130		%REC	1	3/24/2012 4:44:16 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	1	3/24/2012 4:44:16 AM
Surr: Dibromofluoromethane	79.9	69.8-130		%REC	1	3/24/2012 4:44:16 AM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

Page 7 of 17

**Analytical Report**

Lab Order **1203720**

Date Reported: **3/30/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Yates INEX Pit

**Collection Date:** 3/17/2012 12:25:00 PM

**Lab ID:** 1203720-004

**Matrix:** AQUEOUS

**Received Date:** 3/20/2012 12:45:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b> Analyst: <b>RAA</b>						
Surr: Toluene-d8	95.7	70-130		%REC	1	3/24/2012 4:44:16 AM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b> Analyst: <b>JLF</b>						
Conductivity	4,700	0.010		µmhos/cm	1	3/21/2012 4:01:24 PM
<b>SM4500-H+B: PH</b> Analyst: <b>JLF</b>						
pH	7.45	1.68	H	pH units	1	3/21/2012 4:01:24 PM
<b>SM2320B: ALKALINITY</b> Analyst: <b>JLF</b>						
Bicarbonate (As CaCO3)	150	20		mg/L CaCO3	1	3/21/2012 4:01:24 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	3/21/2012 4:01:24 PM
Total Alkalinity (as CaCO3)	150	20		mg/L CaCO3	1	3/21/2012 4:01:24 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> Analyst: <b>KS</b>						
Total Dissolved Solids	3,650	40.0		mg/L	1	3/23/2012 2:44:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit

FINAL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3 1203720-001		MW-1 1203720-002		MW-4 1203720-003		MW-2 1203720-004	
	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
<b>CATIONS</b>								
Sodium	15000	652.46	3300	143.54	2600	113.09	240	10.44
Potassium	48	1.23	8.8	0.23	7.7	0.20	2.8	0.07
Calcium	2200	109.78	1500	74.85	2100	104.79	580	28.94
Magnesium	880	72.43	540	44.44	700	57.61	230	18.93
<b>Total Cations</b>		835.89		263.06		275.69		58.38
<b>ANIONS</b>								
Sulfate	2200	45.80	1200	24.98	1100	22.90	1000	20.82
Chloride	27000	761.64	9400	265.16	11000	310.30	1200	33.85
Bicarbonate (CaCO3)	250	5.00	180	3.60	200	4.00	150	3.00
Carbonate (CaCO3)	ND	*	ND	*	ND	*	ND	*
Phosphate (P)	ND	*	ND	*	ND	*	ND	*
Nitrite (N)	ND	*	ND	*	ND	*	ND	*
Nitrate (N)	ND	*	ND	*	ND	*	ND	*
Fluoride	ND	*	ND	*	ND	*	0.68	0.04
Bromide	8.6	0.11	2.8	0.04	3.2	0.04	0.59	0.01
<b>Total Anions</b>		812.54		293.78		337.24		57.71
<b>Elect. Cond. (µMhos/cm)</b>	87000		28000		31000		4700	
<b>CATION/ANION RATIO</b>		1.03		0.90		0.82		1.01
% Difference		1		6		10		1
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	44800		15300		17900		3650	
TDS (calculated)	47487		16060		17631		3344	
Ratio meas TDS:calc TDS		0.9		1.0		1.0		1.1
Ratio Meas. TDS:EC		0.51		0.55		0.58		0.78
Ratio Calc. TDS:EC		0.55		0.57		0.57		0.71
Ratio of anion sum:EC		0.9		1.0		1.1		1.2
Ratio of cation sum:EC		1.0		0.9		0.9		1.2

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R1617</b>		RunNo: <b>1617</b>							
Prep Date:	Analysis Date: <b>3/22/2012</b>		SeqNo: <b>45571</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R1617</b>		RunNo: <b>1617</b>							
Prep Date:	Analysis Date: <b>3/22/2012</b>		SeqNo: <b>45572</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.48	0.0020	0.5000	0	96.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			
Chromium	0.48	0.0060	0.5000	0	95.9	85	115			
Copper	0.49	0.0060	0.5000	0	97.8	85	115			
Iron	0.49	0.020	0.5000	0	97.7	85	115			
Lead	0.48	0.0050	0.5000	0	96.6	85	115			
Manganese	0.47	0.0020	0.5000	0	94.7	85	115			
Potassium	51	1.0	50.00	0	101	85	115			
Silver	0.096	0.0050	0.1000	0	96.0	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R1712</b>		RunNo: <b>1712</b>							
Prep Date:	Analysis Date: <b>3/27/2012</b>		SeqNo: <b>48228</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R1712</b>		RunNo: <b>1712</b>							
Prep Date:	Analysis Date: <b>3/27/2012</b>		SeqNo: <b>48229</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	100	85	115			
Cadmium	0.51	0.0020	0.5000	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	101	85	115			
Lead	0.50	0.0050	0.5000	0	99.2	85	115			
Magnesium	55	1.0	50.00	0	110	85	115			
Manganese	0.49	0.0020	0.5000	0	97.9	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	99.6	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R1743</b>		RunNo: <b>1743</b>							
Prep Date:	Analysis Date: <b>3/28/2012</b>		SeqNo: <b>49075</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Sodium	ND	1.0								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R1743</b>		RunNo: <b>1743</b>							
Prep Date:	Analysis Date: <b>3/28/2012</b>		SeqNo: <b>49076</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	53	1.0	50.00	0	105	85	115			
Sodium	52	1.0	50.00	0	105	85	115			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R1605</b>	RunNo: <b>1605</b>								
Prep Date:	Analysis Date: <b>3/21/2012</b>	SeqNo: <b>45328</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R1605</b>	RunNo: <b>1605</b>								
Prep Date:	Analysis Date: <b>3/21/2012</b>	SeqNo: <b>45329</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.8	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.024	0.0010	0.02500	0	94.4	85	115			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>MB-1198</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 245.1: Mercury</b>								
Client ID: <b>PBW</b>	Batch ID: <b>1198</b>	RunNo: <b>1614</b>								
Prep Date: <b>3/22/2012</b>	Analysis Date: <b>3/22/2012</b>	SeqNo: <b>45503</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: <b>LCS-1198</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 245.1: Mercury</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>1198</b>	RunNo: <b>1614</b>								
Prep Date: <b>3/22/2012</b>	Analysis Date: <b>3/22/2012</b>	SeqNo: <b>45504</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0051	0.00020	0.005000	0	103	80	120			

**Qualifiers:**

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- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R1583</b>	RunNo: <b>1583</b>								
Prep Date:	Analysis Date: <b>3/20/2012</b>	SeqNo: <b>44517</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R1583</b>	RunNo: <b>1583</b>								
Prep Date:	Analysis Date: <b>3/20/2012</b>	SeqNo: <b>44518</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	102	90	110			
Bromide	2.4	0.10	2.500	0	96.7	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.8	90	110			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R1583</b>	RunNo: <b>1583</b>								
Prep Date:	Analysis Date: <b>3/21/2012</b>	SeqNo: <b>44594</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R1583</b>	RunNo: <b>1583</b>								
Prep Date:	Analysis Date: <b>3/21/2012</b>	SeqNo: <b>44595</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Bromide	2.4	0.10	2.500	0	95.6	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.7	90	110			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R1625</b>	RunNo: <b>1625</b>								
Prep Date:	Analysis Date: <b>3/22/2012</b>	SeqNo: <b>45944</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R1625</b>		RunNo: <b>1625</b>							
Prep Date:	Analysis Date: <b>3/22/2012</b>		SeqNo: <b>45945</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.6	90	110			
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	98.4	90	110			
Sulfate	9.9	0.50	10.00	0	99.3	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.7	90	110			

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>5ml-rb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R1670</b>	RunNo: <b>1670</b>								
Prep Date:	Analysis Date: <b>3/23/2012</b>	SeqNo: <b>47247</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		90.2	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		92.4	70	130			
Surr: Dibromofluoromethane	7.6		10.00		75.9	69.8	130			
Surr: Toluene-d8	9.2		10.00		91.9	70	130			

Sample ID: <b>100ng lcs-c</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R1670</b>	RunNo: <b>1670</b>								
Prep Date:	Analysis Date: <b>3/23/2012</b>	SeqNo: <b>47248</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	98.4	84.1	126			
Toluene	20	1.0	20.00	0	97.6	80	120			
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.0	70	130			
Surr: 4-Bromofluorobenzene	8.8		10.00		87.6	70	130			
Surr: Dibromofluoromethane	7.6		10.00		75.8	69.8	130			
Surr: Toluene-d8	9.4		10.00		94.0	70	130			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>mb-1</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R1600</b>	RunNo: <b>1600</b>								
Prep Date:	Analysis Date: <b>3/21/2012</b>	SeqNo: <b>45065</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID: <b>ics-1</b>	SampType: <b>LCS</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R1600</b>	RunNo: <b>1600</b>								
Prep Date:	Analysis Date: <b>3/21/2012</b>	SeqNo: <b>45066</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79	20	80.00	0	98.9	88.1	104			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1203720

03-Apr-12

**Client:** Safety & Environmental Solutions

**Project:** Yates INEX Pit

Sample ID: <b>MB-1196</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>1196</b>	RunNo: <b>1641</b>								
Prep Date: <b>3/22/2012</b>	Analysis Date: <b>3/23/2012</b>	SeqNo: <b>46518</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-1196</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>1196</b>	RunNo: <b>1641</b>								
Prep Date: <b>3/22/2012</b>	Analysis Date: <b>3/23/2012</b>	SeqNo: <b>46519</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1,010	20.0	1,000	0	101	80	120			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit



### Chain-of-Custody Record

Client: Sageity & Gullon Montana Solutions  
 Mailing Address: 703 E. Clinton / Hobbs, NM 88401  
 Phone #: 575-397-0570  
 email or Fax#: \_\_\_\_\_  
 QA/QC Package:  Standard  Level 4 (Full Validation)  
 Accreditation:  NELAP  Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Turn-Around Time:  Standard  Rush  
 Project Name: YATE's Inexp. Pet  
 Project #: YAT-04-003  
 Project Manager: Boyer, Anne  
 Sampler: Sen, Jimmy  
 On Ice:  Yes  No  
 Sample Temperature: 12



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com  
 4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

**Analysis Request**

BTEX + MTBE + TMBs (8021)	
BTEX + MTBE + TPH (Gas only)	
TPH Method 8015B (Gas/Diesel)	
TPH (Method 418.1)	
EDB (Method 504.1)	
8310 (PNA or PAH)	
RCRA 8 Metals	
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	
8081 Pesticides / 8082 PCB's	
8260B (VOA)	
8270 (Semi-VOA)	
BTEX / Napthalene	X
WGC DSS Metals	X
Calcium / Magnesium / Barium	X
Air Bubbles (Y or N)	X

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
07/17/12	1105	ltw	mw-3	7	HEAL 1103 / 1/2 804	120320-001
07/17/12	1140	ltw	mw-1	7		-002
07/17/12	1205	ltw	mw-4	7		-003
07/17/12	1225	ltw	mw-2	7		-004

Date: 07/19/12 Time: 1600 Relinquished by: Sen, Jimmy  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_ Relinquished by: \_\_\_\_\_  
 Received by: [Signature] Date: 08/06/12 Time: \_\_\_\_\_  
 Received by: [Signature] Date: \_\_\_\_\_ Time: \_\_\_\_\_

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

August 03, 2012

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 390-7067  
FAX: (575) 393-4388

RE: INEX Pit

OrderNo.: 1206993

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 5 sample(s) on 6/22/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1206993

Date Reported: 8/3/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-3

Project: INEX Pit

Collection Date: 6/18/2012 10:00:00 AM

Lab ID: 1206993-001

Matrix: AQUEOUS

Received Date: 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Fluoride	ND	5.0		mg/L	50	6/29/2012 5:32:06 PM
Chloride	28000	1000		mg/L	2000	7/5/2012 5:57:34 PM
Bromide	17	2.0		mg/L	20	6/22/2012 8:31:07 PM
Nitrate+Nitrite as N	ND	20		mg/L	100	7/2/2012 6:04:57 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	6/22/2012 8:31:07 PM
Sulfate	2400	25		mg/L	50	6/29/2012 5:32:06 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.069	0.010		mg/L	5	7/26/2012 1:31:31 PM
Cadmium	ND	0.010		mg/L	5	7/26/2012 1:31:31 PM
Calcium	2200	100		mg/L	100	7/26/2012 12:37:31 PM
Chromium	ND	0.030		mg/L	5	7/26/2012 1:31:31 PM
Copper	ND	0.030		mg/L	5	7/27/2012 1:32:17 PM
Iron	0.80	0.10	*	mg/L	5	7/27/2012 7:11:22 AM
Lead	ND	0.025		mg/L	5	7/26/2012 1:31:31 PM
Magnesium	770	100		mg/L	100	7/26/2012 12:37:31 PM
Manganese	0.20	0.010	*	mg/L	5	7/27/2012 7:11:22 AM
Potassium	29	5.0		mg/L	5	7/26/2012 1:31:31 PM
Silver	ND	0.025		mg/L	5	7/27/2012 7:11:22 AM
Sodium	14000	500		mg/L	500	7/27/2012 7:15:08 AM
Zinc	0.15	0.050		mg/L	5	7/27/2012 7:11:22 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>SNV</b>
Arsenic	ND	0.020	X	mg/L	20	7/25/2012 4:16:33 PM
Selenium	0.049	0.020		mg/L	20	7/25/2012 4:16:33 PM
Uranium	ND	0.020		mg/L	20	7/26/2012 4:34:21 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>RAG</b>
Mercury	0.00021	0.00020		mg/L	1	7/2/2012 2:02:55 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>JDJ</b>
Benzene	ND	1.0		µg/L	1	6/25/2012 7:40:07 PM
Toluene	ND	1.0		µg/L	1	6/25/2012 7:40:07 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2012 7:40:07 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2012 7:40:07 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2012 7:40:07 PM
Xylenes, Total	ND	2.0		µg/L	1	6/25/2012 7:40:07 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	6/25/2012 7:40:07 PM
Surr: 4-Bromofluorobenzene	120	70-130		%REC	1	6/25/2012 7:40:07 PM
Surr: Dibromofluoromethane	101	69.8-130		%REC	1	6/25/2012 7:40:07 PM
Surr: Toluene-d8	93.8	70-130		%REC	1	6/25/2012 7:40:07 PM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>DBD</b>
Conductivity	86000	0.50		µmhos/cm	50	6/28/2012 6:31:51 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

Page 1 of 22

**Analytical Report**

Lab Order **1206993**

Date Reported: **8/3/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** INEX Pit

**Collection Date:** 6/18/2012 10:00:00 AM

**Lab ID:** 1206993-001

**Matrix:** AQUEOUS

**Received Date:** 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>DBD</b></span>						
pH	6.89	1.68	H	pH units	1	6/28/2012 11:12:49 AM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>DBD</b></span>						
Bicarbonate (As CaCO3)	240	20		mg/L CaCO3	1	6/28/2012 11:12:49 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/28/2012 11:12:49 AM
Total Alkalinity (as CaCO3)	240	20		mg/L CaCO3	1	6/28/2012 11:12:49 AM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>SNV</b></span>						
Total Dissolved Solids	44500	400		mg/L	1	6/26/2012 3:11:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

## Analytical Report

Lab Order 1206993

Date Reported: 8/3/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-1

Project: INEX Pit

Collection Date: 6/18/2012 10:25:00 AM

Lab ID: 1206993-002

Matrix: AQUEOUS

Received Date: 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Fluoride	ND	2.0		mg/L	20	6/29/2012 5:56:55 PM
Chloride	8100	500		mg/L	1000	7/5/2012 6:08:49 PM
Bromide	7.1	2.0		mg/L	20	6/22/2012 8:08:40 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/29/2012 11:26:58 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/22/2012 7:57:26 PM
Sulfate	1200	25		mg/L	50	6/29/2012 6:09:19 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.041	0.0020		mg/L	1	7/26/2012 12:43:16 PM
Cadmium	ND	0.0020		mg/L	1	7/26/2012 12:43:16 PM
Calcium	1800	500		mg/L	500	7/26/2012 12:46:16 PM
Chromium	ND	0.0060		mg/L	1	7/26/2012 12:43:16 PM
Copper	ND	0.0060		mg/L	1	7/27/2012 1:34:10 PM
Iron	0.026	0.020		mg/L	1	7/12/2012 11:09:53 PM
Lead	ND	0.0050		mg/L	1	7/26/2012 12:43:16 PM
Magnesium	480	5.0		mg/L	5	7/12/2012 11:13:43 PM
Manganese	0.0036	0.0020		mg/L	1	7/12/2012 11:09:53 PM
Potassium	7.9	1.0		mg/L	1	7/26/2012 12:43:16 PM
Silver	ND	0.0050		mg/L	1	7/12/2012 11:09:53 PM
Sodium	3500	100		mg/L	100	7/27/2012 7:23:15 AM
Zinc	0.013	0.010		mg/L	1	7/26/2012 12:43:16 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>SNV</b>
Arsenic	ND	0.0050		mg/L	5	7/24/2012 7:02:04 PM
Selenium	0.016	0.0050		mg/L	5	7/24/2012 7:02:04 PM
Uranium	0.013	0.0050		mg/L	5	7/26/2012 4:38:05 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>RAG</b>
Mercury	ND	0.00020		mg/L	1	7/2/2012 2:04:42 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>JDJ</b>
Benzene	ND	1.0		µg/L	1	6/25/2012 8:09:36 PM
Toluene	ND	1.0		µg/L	1	6/25/2012 8:09:36 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2012 8:09:36 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2012 8:09:36 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2012 8:09:36 PM
Xylenes, Total	ND	2.0		µg/L	1	6/25/2012 8:09:36 PM
Surr: 1,2-Dichloroethane-d4	99.0	70-130		%REC	1	6/25/2012 8:09:36 PM
Surr: 4-Bromofluorobenzene	112	70-130		%REC	1	6/25/2012 8:09:36 PM
Surr: Dibromofluoromethane	104	69.8-130		%REC	1	6/25/2012 8:09:36 PM
Surr: Toluene-d8	94.8	70-130		%REC	1	6/25/2012 8:09:36 PM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>DBD</b>
Conductivity	31000	0.50		µmhos/cm	50	6/28/2012 6:35:56 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

**Analytical Report**

Lab Order **1206993**

Date Reported: **8/3/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** INEX Pit

**Collection Date:** 6/18/2012 10:25:00 AM

**Lab ID:** 1206993-002

**Matrix:** AQUEOUS

**Received Date:** 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>DBD</b></span>						
pH	7.03	1.68	H	pH units	1	6/28/2012 11:28:06 AM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>DBD</b></span>						
Bicarbonate (As CaCO3)	180	20		mg/L CaCO3	1	6/28/2012 11:28:06 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/28/2012 11:28:06 AM
Total Alkalinity (as CaCO3)	180	20		mg/L CaCO3	1	6/28/2012 11:28:06 AM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>SNV</b></span>						
Total Dissolved Solids	15400	20.0		mg/L	1	6/26/2012 3:11:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

## Analytical Report

Lab Order 1206993

Date Reported: 8/3/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-4

Project: INEX Pit

Collection Date: 6/18/2012 10:55:00 AM

Lab ID: 1206993-003

Matrix: AQUEOUS

Received Date: 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Fluoride	ND	2.0		mg/L	20	6/29/2012 6:34:08 PM
Chloride	9000	500		mg/L	1000	7/5/2012 6:20:03 PM
Bromide	6.6	2.0		mg/L	20	6/22/2012 7:23:44 PM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	6/29/2012 11:39:23 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/22/2012 7:12:30 PM
Sulfate	1000	25		mg/L	50	6/29/2012 6:46:33 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.046	0.0020		mg/L	1	7/26/2012 12:49:19 PM
Cadmium	ND	0.0020		mg/L	1	7/26/2012 12:49:19 PM
Calcium	2000	100		mg/L	100	7/27/2012 7:31:20 AM
Chromium	ND	0.0060		mg/L	1	7/26/2012 12:49:19 PM
Copper	ND	0.0060		mg/L	1	7/27/2012 5:00:33 PM
Iron	0.030	0.020		mg/L	1	7/12/2012 11:17:33 PM
Lead	ND	0.0050		mg/L	1	7/26/2012 12:49:19 PM
Magnesium	660	10		mg/L	10	7/26/2012 1:16:44 PM
Manganese	0.0090	0.0020		mg/L	1	7/12/2012 11:17:33 PM
Potassium	7.1	1.0		mg/L	1	7/26/2012 12:49:19 PM
Silver	ND	0.0050		mg/L	1	7/12/2012 11:17:33 PM
Sodium	2700	100		mg/L	100	7/27/2012 7:31:20 AM
Zinc	0.017	0.010		mg/L	1	7/26/2012 12:49:19 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>SNV</b>
Arsenic	ND	0.0050		mg/L	5	7/24/2012 7:03:56 PM
Selenium	0.016	0.0050		mg/L	5	7/24/2012 7:03:56 PM
Uranium	0.018	0.0050		mg/L	5	7/26/2012 4:39:57 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>RAG</b>
Mercury	ND	0.00020		mg/L	1	7/2/2012 2:06:28 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>JDJ</b>
Benzene	ND	1.0		µg/L	1	6/25/2012 8:39:11 PM
Toluene	ND	1.0		µg/L	1	6/25/2012 8:39:11 PM
Ethylbenzene	ND	1.0		µg/L	1	6/25/2012 8:39:11 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/25/2012 8:39:11 PM
Naphthalene	ND	2.0		µg/L	1	6/25/2012 8:39:11 PM
Xylenes, Total	ND	2.0		µg/L	1	6/25/2012 8:39:11 PM
Surr: 1,2-Dichloroethane-d4	104	70-130		%REC	1	6/25/2012 8:39:11 PM
Surr: 4-Bromofluorobenzene	116	70-130		%REC	1	6/25/2012 8:39:11 PM
Surr: Dibromofluoromethane	106	69.8-130		%REC	1	6/25/2012 8:39:11 PM
Surr: Toluene-d8	95.4	70-130		%REC	1	6/25/2012 8:39:11 PM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>DBD</b>
Conductivity	32000	0.50		µmhos/cm	50	6/28/2012 6:40:03 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

**Analytical Report**

Lab Order **1206993**

Date Reported: **8/3/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** INEX Pit

**Collection Date:** 6/18/2012 10:55:00 AM

**Lab ID:** 1206993-003

**Matrix:** AQUEOUS

**Received Date:** 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>DBD</b></span>						
pH	7.02	1.68	H	pH units	1	6/28/2012 11:40:49 AM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>DBD</b></span>						
Bicarbonate (As CaCO3)	200	20		mg/L CaCO3	1	6/28/2012 11:40:49 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/28/2012 11:40:49 AM
Total Alkalinity (as CaCO3)	200	20		mg/L CaCO3	1	6/28/2012 11:40:49 AM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>SNV</b></span>						
Total Dissolved Solids	15400	20.0		mg/L	1	6/26/2012 3:11:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

## Analytical Report

Lab Order 1206993

Date Reported: 8/3/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-2

Project: INEX Pit

Collection Date: 6/18/2012 11:15:00 AM

Lab ID: 1206993-004

Matrix: AQUEOUS

Received Date: 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>BRM</b>
Fluoride	0.96	0.10		mg/L	1	6/29/2012 7:11:22 PM
Chloride	1000	50		mg/L	100	7/5/2012 6:31:17 PM
Bromide	0.98	0.10		mg/L	1	6/22/2012 6:50:03 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	6/23/2012 1:00:38 AM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	6/22/2012 6:50:03 PM
Sulfate	940	50		mg/L	100	6/29/2012 7:23:46 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.017	0.0020		mg/L	1	7/26/2012 1:22:27 PM
Cadmium	ND	0.0020		mg/L	1	7/26/2012 1:22:27 PM
Calcium	520	10		mg/L	10	7/27/2012 7:54:37 AM
Chromium	ND	0.0060		mg/L	1	7/26/2012 1:22:27 PM
Copper	ND	0.0060		mg/L	1	7/27/2012 5:04:24 PM
Iron	0.041	0.020		mg/L	1	7/12/2012 11:25:18 PM
Lead	ND	0.0050		mg/L	1	7/26/2012 1:22:27 PM
Magnesium	190	5.0		mg/L	5	7/12/2012 11:44:28 PM
Manganese	0.0036	0.0020		mg/L	1	7/12/2012 11:25:18 PM
Potassium	2.3	1.0		mg/L	1	7/26/2012 1:22:27 PM
Silver	ND	0.0050		mg/L	1	7/12/2012 11:25:18 PM
Sodium	210	10		mg/L	10	7/27/2012 7:54:37 AM
Zinc	0.010	0.010		mg/L	1	7/27/2012 7:50:48 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>SNV</b>
Arsenic	0.0014	0.0010		mg/L	1	7/24/2012 7:05:48 PM
Selenium	0.0075	0.0010		mg/L	1	7/24/2012 7:05:48 PM
Uranium	0.0076	0.0010		mg/L	1	7/26/2012 4:41:49 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>RAG</b>
Mercury	ND	0.00020		mg/L	1	7/2/2012 2:08:23 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>JDJ</b>
Benzene	ND	1.0		µg/L	1	6/26/2012 3:51:33 PM
Toluene	ND	1.0		µg/L	1	6/26/2012 3:51:33 PM
Ethylbenzene	ND	1.0		µg/L	1	6/26/2012 3:51:33 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/26/2012 3:51:33 PM
Naphthalene	ND	2.0		µg/L	1	6/26/2012 3:51:33 PM
Xylenes, Total	ND	2.0		µg/L	1	6/26/2012 3:51:33 PM
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%REC	1	6/26/2012 3:51:33 PM
Surr: 4-Bromofluorobenzene	104	70-130		%REC	1	6/26/2012 3:51:33 PM
Surr: Dibromofluoromethane	95.8	69.8-130		%REC	1	6/26/2012 3:51:33 PM
Surr: Toluene-d8	96.7	70-130		%REC	1	6/26/2012 3:51:33 PM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>DBD</b>
Conductivity	4300	0.010		µmhos/cm	1	6/28/2012 11:53:59 AM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

**Analytical Report**

Lab Order **1206993**

Date Reported: **8/3/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** INEX Pit

**Collection Date:** 6/18/2012 11:15:00 AM

**Lab ID:** 1206993-004

**Matrix:** AQUEOUS

**Received Date:** 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>DBD</b></span>						
pH	7.30	1.68	H	pH units	1	6/28/2012 11:53:59 AM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>DBD</b></span>						
Bicarbonate (As CaCO3)	150	20		mg/L CaCO3	1	6/28/2012 11:53:59 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/28/2012 11:53:59 AM
Total Alkalinity (as CaCO3)	150	20		mg/L CaCO3	1	6/28/2012 11:53:59 AM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>SNV</b></span>						
Total Dissolved Solids	3220	20.0		mg/L	1	6/26/2012 3:11:00 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

**Analytical Report**

Lab Order **1206993**

Date Reported: **8/3/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** Trip Blank

**Project:** INEX Pit

**Collection Date:**

**Lab ID:** 1206993-005

**Matrix:** AQUEOUS

**Received Date:** 6/22/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>JDJ</b>
Benzene	ND	1.0		µg/L	1	6/26/2012 5:21:17 PM
Toluene	ND	1.0		µg/L	1	6/26/2012 5:21:17 PM
Ethylbenzene	ND	1.0		µg/L	1	6/26/2012 5:21:17 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	6/26/2012 5:21:17 PM
Naphthalene	ND	2.0		µg/L	1	6/26/2012 5:21:17 PM
Xylenes, Total	ND	2.0		µg/L	1	6/26/2012 5:21:17 PM
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%REC	1	6/26/2012 5:21:17 PM
Surr: 4-Bromofluorobenzene	106	70-130		%REC	1	6/26/2012 5:21:17 PM
Surr: Dibromofluoromethane	97.0	69.8-130		%REC	1	6/26/2012 5:21:17 PM
Surr: Toluene-d8	93.3	70-130		%REC	1	6/26/2012 5:21:17 PM

**Qualifiers:** \*/X Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 RL Reporting Detection Limit  
 U Samples with CalcVal < MDL

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MWV-3 1206993-01		MWV-1 1206993-02		MWV-4 1206993-03		MWV-2 1206993-04	
	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	14000	608.96	3500	152.24	2700	117.44	210	9.13
Potassium	29	0.74	7.9	0.20	7.1	0.18	2.3	0.06
Calcium	2200	109.78	1800	89.82	2000	99.80	520	25.95
Magnesium	770	63.37	480	39.51	660	54.32	190	15.64
<b>Total Cations</b>		<b>782.86</b>		<b>281.77</b>		<b>271.75</b>		<b>50.78</b>
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2400	49.97	1200	24.98	1000	20.82	940	19.57
Chloride	28000	789.84	8100	228.49	9000	253.88	1000	28.21
Bicarbonate (CaCO3)	240	4.80	180	3.60	200	4.00	150	3.00
Carbonate (CaCO3)	ND	*	ND	*	ND	*	ND	*
Phosphate (P)	ND	*	ND	*	ND	*	ND	*
Nitrite (N)	ND	*	ND	*	ND	*	ND	*
Nitrate (N)	ND	*	ND	*	ND	*	ND	*
Fluoride	ND	*	ND	*	ND	*	0.96	0.05
Bromide	17	0.21	7.1	0.09	6.6	0.08	0.98	0.01
<b>Total Anions</b>		<b>844.82</b>		<b>257.16</b>		<b>278.78</b>		<b>50.84</b>
Elect. Cond. (µMhos/cm)	86000		31000		32000		4300	
<b>CATION/ANION RATIO</b>		0.93		1.10		0.97		1.00
% Difference		4		5		1		0
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	44500		15400		15400		3220	
TDS (calculated)	47560		15203		15494		2954	
Ratio meas TDS:calc TDS		0.9		1.0		1.0		1.1
Ratio Meas. TDS:EC		0.52		0.50		0.48		0.75
Ratio Calc. TDS:EC		0.55		0.49		0.48		0.69
Ratio of anion sum:EC		1.0		0.8		0.9		1.2
Ratio of cation sum:EC		0.9		0.9		0.8		1.2

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R4006</b>	RunNo: <b>4006</b>								
Prep Date:	Analysis Date: <b>7/12/2012</b>	SeqNo: <b>114717</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R4006</b>	RunNo: <b>4006</b>								
Prep Date:	Analysis Date: <b>7/12/2012</b>	SeqNo: <b>114718</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.48	0.020	0.5000	0.002760	95.9	85	115			
Magnesium	51	1.0	50.00	0	101	85	115			
Manganese	0.47	0.0020	0.5000	0	94.1	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R4442</b>	RunNo: <b>4442</b>								
Prep Date:	Analysis Date: <b>7/26/2012</b>	SeqNo: <b>124089</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Zinc	ND	0.010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R4442</b>	RunNo: <b>4442</b>								
Prep Date:	Analysis Date: <b>7/26/2012</b>	SeqNo: <b>124090</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.53	0.0020	0.5000	0	105	85	115			
Cadmium	0.53	0.0020	0.5000	0	105	85	115			
Calcium	52	1.0	50.00	0	103	85	115			
Chromium	0.52	0.0060	0.5000	0.0008200	103	85	115			
Lead	0.54	0.0050	0.5000	0	108	85	115			
Magnesium	52	1.0	50.00	0	103	85	115			
Potassium	50	1.0	50.00	0	100	85	115			
Zinc	0.52	0.010	0.5000	0	103	85	115			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R4486</b>	RunNo: <b>4486</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125738</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R4486</b>	RunNo: <b>4486</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125739</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.52	0.0060	0.5000	0	104	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R4469</b>	RunNo: <b>4469</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125929</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								
Manganese	ND	0.0020								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R4469</b>	RunNo: <b>4469</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125930</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.45	0.020	0.5000	0	90.2	85	115			
Manganese	0.46	0.0020	0.5000	0	91.9	85	115			
Silver	0.093	0.0050	0.1000	0	92.6	85	115			
Zinc	0.46	0.010	0.5000	0	91.9	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R4469</b>	RunNo: <b>4469</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125931</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Sodium	ND	1.0								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R4469</b>	RunNo: <b>4469</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125932</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R4469</b>	RunNo: <b>4469</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125932</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	51	1.0	50.00	0	102	85	115			
Sodium	52	1.0	50.00	0	103	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R4469</b>	RunNo: <b>4469</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125935</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R4469</b>	RunNo: <b>4469</b>								
Prep Date:	Analysis Date: <b>7/27/2012</b>	SeqNo: <b>125936</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.50	0.0060	0.5000	0	99.3	85	115			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R4408</b>		RunNo: <b>4408</b>							
Prep Date:	Analysis Date: <b>7/24/2012</b>		SeqNo: <b>122986</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.026	0.0010	0.02500	0	105	85	115			

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R4408</b>		RunNo: <b>4408</b>							
Prep Date:	Analysis Date: <b>7/24/2012</b>		SeqNo: <b>122987</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.2	85	115			
Selenium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R4408</b>		RunNo: <b>4408</b>							
Prep Date:	Analysis Date: <b>7/24/2012</b>		SeqNo: <b>122988</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R4408</b>		RunNo: <b>4408</b>							
Prep Date:	Analysis Date: <b>7/24/2012</b>		SeqNo: <b>122989</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R4441</b>		RunNo: <b>4441</b>							
Prep Date:	Analysis Date: <b>7/25/2012</b>		SeqNo: <b>124069</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.8	85	115			
Selenium	0.026	0.0010	0.02500	0	104	85	115			

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R4441</b>		RunNo: <b>4441</b>							
Prep Date:	Analysis Date: <b>7/25/2012</b>		SeqNo: <b>124070</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.3	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R4441</b>		RunNo: <b>4441</b>							
Prep Date:	Analysis Date: <b>7/25/2012</b>		SeqNo: <b>124071</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	99.0	85	115			
Selenium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R4441</b>		RunNo: <b>4441</b>							
Prep Date:	Analysis Date: <b>7/25/2012</b>		SeqNo: <b>124072</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R4441</b>		RunNo: <b>4441</b>							
Prep Date:	Analysis Date: <b>7/25/2012</b>		SeqNo: <b>124073</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R4441</b>		RunNo: <b>4441</b>							
Prep Date:	Analysis Date: <b>7/25/2012</b>		SeqNo: <b>124074</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R4459</b>		RunNo: <b>4459</b>							
Prep Date:	Analysis Date: <b>7/26/2012</b>		SeqNo: <b>124610</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	99.0	85	115			

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R4459</b>		RunNo: <b>4459</b>							
Prep Date:	Analysis Date: <b>7/26/2012</b>		SeqNo: <b>124611</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.025	0.0010	0.02500	0	98.1	85	115	0.896	0	

**Qualifiers:**

*X Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
R RPD outside accepted recovery limits	RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R4459</b>	RunNo: <b>4459</b>								
Prep Date:	Analysis Date: <b>7/26/2012</b>	SeqNo: <b>124613</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

**Qualifiers:**

\*X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>MB-2667</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 245.1: Mercury</b>								
Client ID: <b>PBW</b>	Batch ID: <b>2667</b>	RunNo: <b>3824</b>								
Prep Date: <b>7/2/2012</b>	Analysis Date: <b>7/2/2012</b>	SeqNo: <b>108342</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: <b>LCS-2667</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 245.1: Mercury</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>2667</b>	RunNo: <b>3824</b>								
Prep Date: <b>7/2/2012</b>	Analysis Date: <b>7/2/2012</b>	SeqNo: <b>108343</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	.00002844	97.7	80	120			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3648</b>	RunNo: <b>3648</b>								
Prep Date:	Analysis Date: <b>6/22/2012</b>	SeqNo: <b>102813</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3648</b>	RunNo: <b>3648</b>								
Prep Date:	Analysis Date: <b>6/22/2012</b>	SeqNo: <b>102814</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.5	0.10	2.500	0	100	90	110			
Phosphorus, Orthophosphate (As P)	5.1	0.50	5.000	0	102	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3812</b>	RunNo: <b>3812</b>								
Prep Date:	Analysis Date: <b>6/29/2012</b>	SeqNo: <b>107840</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Sulfate	ND	0.50								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3812</b>	RunNo: <b>3812</b>								
Prep Date:	Analysis Date: <b>6/29/2012</b>	SeqNo: <b>107841</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.47	0.10	0.5000	0	93.6	90	110			
Sulfate	9.6	0.50	10.00	0	95.6	90	110			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3815</b>	RunNo: <b>3815</b>								
Prep Date:	Analysis Date: <b>6/29/2012</b>	SeqNo: <b>107998</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3815</b>	RunNo: <b>3815</b>								
Prep Date:	Analysis Date: <b>6/29/2012</b>	SeqNo: <b>107999</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.4	0.20	3.500	0	95.9	90	110			

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3839</b>	RunNo: <b>3839</b>								
Prep Date:	Analysis Date: <b>7/2/2012</b>	SeqNo: <b>108900</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3839</b>	RunNo: <b>3839</b>								
Prep Date:	Analysis Date: <b>7/2/2012</b>	SeqNo: <b>108901</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.1	90	110			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3871</b>	RunNo: <b>3871</b>								
Prep Date:	Analysis Date: <b>7/5/2012</b>	SeqNo: <b>110164</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3871</b>	RunNo: <b>3871</b>								
Prep Date:	Analysis Date: <b>7/5/2012</b>	SeqNo: <b>110165</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.6	90	110			

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>5ml rb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3667</b>	RunNo: <b>3667</b>								
Prep Date:	Analysis Date: <b>6/25/2012</b>	SeqNo: <b>103462</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		106	69.8	130			
Surr: Toluene-d8	9.0		10.00		90.0	70	130			

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3667</b>	RunNo: <b>3667</b>								
Prep Date:	Analysis Date: <b>6/25/2012</b>	SeqNo: <b>103463</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	101	84.1	126			
Toluene	20	1.0	20.00	0	98.7	80	120			
Surr: 1,2-Dichloroethane-d4	10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		115	70	130			
Surr: Dibromofluoromethane	11		10.00		108	69.8	130			
Surr: Toluene-d8	9.7		10.00		97.1	70	130			

Sample ID: <b>5ml rb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3711</b>	RunNo: <b>3711</b>								
Prep Date:	Analysis Date: <b>6/26/2012</b>	SeqNo: <b>105109</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	11		10.00		109	69.8	130			
Surr: Toluene-d8	9.7		10.00		96.6	70	130			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>100ng lcsb</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R3711</b>		RunNo: <b>3711</b>							
Prep Date:	Analysis Date: <b>6/26/2012</b>		SeqNo: <b>105110</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	95.2	84.1	126			
Toluene	18	1.0	20.00	0	92.4	80	120			
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	12		10.00		117	70	130			
Surr: Dibromofluoromethane	10		10.00		103	69.8	130			
Surr: Toluene-d8	9.9		10.00		99.3	70	130			

**Qualifiers:**

\*X Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

R RPD outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>mb-1</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3762</b>	RunNo: <b>3762</b>								
Prep Date:	Analysis Date: <b>6/28/2012</b>	SeqNo: <b>106435</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID: <b>ics-1</b>	SampType: <b>LCS</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3762</b>	RunNo: <b>3762</b>								
Prep Date:	Analysis Date: <b>6/28/2012</b>	SeqNo: <b>106436</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	81	20	80.00	0	101	88.1	104			

Sample ID: <b>mb-2</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R3762</b>	RunNo: <b>3762</b>								
Prep Date:	Analysis Date: <b>6/28/2012</b>	SeqNo: <b>106454</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID: <b>ics-2</b>	SampType: <b>LCS</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R3762</b>	RunNo: <b>3762</b>								
Prep Date:	Analysis Date: <b>6/28/2012</b>	SeqNo: <b>106455</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	81	20	80.00	0	101	88.1	104			

**Qualifiers:**

- \* / X Value exceeds Maximum Contaminant Level.
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- H Holding times for preparation or analysis exceeded
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1206993

03-Aug-12

**Client:** Safety & Environmental Solutions

**Project:** INEX Pit

Sample ID: <b>MB-2554</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>2554</b>	RunNo: <b>3689</b>								
Prep Date: <b>6/25/2012</b>	Analysis Date: <b>6/26/2012</b>	SeqNo: <b>104183</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-2554</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>2554</b>	RunNo: <b>3689</b>								
Prep Date: <b>6/25/2012</b>	Analysis Date: <b>6/26/2012</b>	SeqNo: <b>104184</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	999	20.0	1000	0	99.9	80	120			

**Qualifiers:**

- \*X Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

### Sample Log-In Check List

Client Name: Safety Env Solutions      Work Order Number: 1206993  
 Received by/date: Cam 06/22/12  
 Logged By: Anne Thorne      6/22/2012 10:45:00 AM      *Ann Thorne*  
 Completed By: Anne Thorne      6/22/2012      *Ann Thorne*  
 Reviewed By:

#### Chain of Custody

- 1. Were seals intact?      Yes  No  Not Present
- 2. Is Chain of Custody complete?      Yes  No  Not Present
- 3. How was the sample delivered?      GREYHOUND

#### Log In

- 4. Coolers are present? (see 19. for cooler specific information)      Yes  No  NA
- 5. Was an attempt made to cool the samples?      Yes  No  NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C      Yes  No  NA
- 7. Sample(s) in proper container(s)?      Yes  No
- 8. Sufficient sample volume for indicated test(s)?      Yes  No
- 9. Are samples (except VOA and ONG) properly preserved?      Yes  No
- 10. Was preservative added to bottles?      Yes  No  NA   
*add to -001107*
- 11. VOA vials have zero headspace?      Yes  No  No VOA Vials
- 12. Were any sample containers received broken?      Yes  No
- 13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)      Yes  No
- 14. Are matrices correctly identified on Chain of Custody?      Yes  No
- 15. Is it clear what analyses were requested?      Yes  No
- 16. Were all holding times able to be met? (If no, notify customer for authorization.)      Yes  No

# of preserved bottles checked for pH: 12  
 (2 or >12 unless noted)  
 Adjusted? Yes  
 Checked by: JTB

#### Special Handling (if applicable)

- 17. Was client notified of all discrepancies with this order?      Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

18. Additional remarks: 1206993-0012 for 8260 had a pH > 2.0. 6/29/12

#### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.9	Good				





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

October 29, 2012

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 390-7067  
FAX (575) 393-4388

RE: Yates Inex Pit

OrderNo.: 1209595

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 5 sample(s) on 9/14/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1209595**

Date Reported: **10/29/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Yates Inex Pit

**Collection Date:** 9/12/2012 11:05:00 AM

**Lab ID:** 1209595-001

**Matrix:** AQUEOUS

**Received Date:** 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Fluoride	ND	10		mg/L	100	9/17/2012 3:28:13 PM
Chloride	29000	2500		mg/L	5000	9/18/2012 9:28:21 PM
Bromide	8.8	2.0		mg/L	20	9/15/2012 1:09:29 AM
Nitrate+Nitrite as N	ND	20	*	mg/L	100	9/18/2012 10:42:50 PM
Phosphorus, Orthophosphate (As P')	ND	50	H	mg/L	100	9/17/2012 3:28:13 PM
Sulfate	2300	50		mg/L	100	9/17/2012 3:28:13 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JLF</b>
Barium	0.21	0.010		mg/L	5	9/17/2012 8:00:48 PM
Cadmium	ND	0.010		mg/L	5	9/17/2012 8:00:48 PM
Calcium	2300	50		mg/L	50	9/20/2012 10:49:37 AM
Chromium	ND	0.030		mg/L	5	9/17/2012 8:00:48 PM
Copper	ND	0.030		mg/L	5	10/23/2012 1:54:14 PM
Iron	2.1	1.0	*	mg/L	50	9/20/2012 10:49:37 AM
Magnesium	830	50		mg/L	50	9/20/2012 10:49:37 AM
Manganese	1.1	0.010	*	mg/L	5	9/17/2012 8:00:48 PM
Potassium	29	5.0		mg/L	5	9/17/2012 8:00:48 PM
Silver	ND	0.025		mg/L	5	9/17/2012 8:00:48 PM
Sodium	13000	200		mg/L	200	9/20/2012 10:53:25 AM
Zinc	0.053	0.050		mg/L	5	9/17/2012 8:00:48 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBD</b>
Arsenic	0.016	0.010	*	mg/L	10	9/27/2012 2:45:00 PM
Lead	ND	0.010		mg/L	10	9/27/2012 2:45:00 PM
Selenium	0.052	0.010	*	mg/L	10	10/4/2012 2:12:56 PM
Uranium	0.018	0.010		mg/L	10	10/25/2012 2:02:44 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>IDC</b>
Mercury	0.00027	0.00020		mg/L	1	9/18/2012 1:37:11 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	9/15/2012 5:33:30 AM
Toluene	ND	1.0		µg/L	1	9/15/2012 5:33:30 AM
Ethylbenzene	ND	1.0		µg/L	1	9/15/2012 5:33:30 AM
Naphthalene	ND	2.0		µg/L	1	9/15/2012 5:33:30 AM
Xylenes, Total	ND	2.0		µg/L	1	9/15/2012 5:33:30 AM
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	1	9/15/2012 5:33:30 AM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	1	9/15/2012 5:33:30 AM
Surr: Dibromofluoromethane	80.7	70-130		%REC	1	9/15/2012 5:33:30 AM
Surr: Toluene-d8	95.3	70-130		%REC	1	9/15/2012 5:33:30 AM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JML</b>
Conductivity	90000	0.50		µmhos/cm	50	9/18/2012 12:06:18 PM
<b>SM4500-H+B: PH</b>						Analyst: <b>IDC</b>

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1209595**

Date Reported: **10/29/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Yates Inex Pit

**Collection Date:** 9/12/2012 11:05:00 AM

**Lab ID:** 1209595-001

**Matrix:** AQUEOUS

**Received Date:** 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>IDC</b></span>						
pH	6.87	1.68	H	pH units	1	9/14/2012 8:33:43 PM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>IDC</b></span>						
Bicarbonate (As CaCO3)	250	20		mg/L CaCO3	1	9/14/2012 8:33:43 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	9/14/2012 8:33:43 PM
Total Alkalinity (as CaCO3)	250	20		mg/L CaCO3	1	9/14/2012 8:33:43 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>KS</b></span>						
Total Dissolved Solids	46100	200		mg/L	1	9/18/2012 4:26:00 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1209595**

Date Reported: **10/29/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Yates Inex Pit

**Collection Date:** 9/12/2012 11:35:00 AM

**Lab ID:** 1209595-002

**Matrix:** AQUEOUS

**Received Date:** 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Fluoride	ND	2.0		mg/L	20	9/15/2012 1:34:17 AM
Chloride	5600	250		mg/L	500	9/17/2012 4:17:52 PM
Bromide	ND	2.0		mg/L	20	9/15/2012 1:34:17 AM
Nitrate+Nitrite as N	ND	10		mg/L	50	9/18/2012 10:55:14 PM
Phosphorus, Orthophosphate (As P')	ND	25	H	mg/L	50	9/17/2012 3:40:38 PM
Sulfate	1100	25		mg/L	50	9/17/2012 3:40:38 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JLF</b>
Barium	0.027	0.0020		mg/L	1	9/17/2012 8:25:50 PM
Cadmium	ND	0.0020		mg/L	1	9/17/2012 8:25:50 PM
Calcium	1100	50		mg/L	50	9/20/2012 11:04:39 AM
Chromium	ND	0.0060		mg/L	1	9/17/2012 8:25:50 PM
Copper	ND	0.0060		mg/L	1	9/20/2012 10:57:05 AM
Iron	0.071	0.020		mg/L	1	9/20/2012 10:57:05 AM
Magnesium	390	10		mg/L	10	9/20/2012 11:00:52 AM
Manganese	0.0086	0.0020		mg/L	1	9/17/2012 8:25:50 PM
Potassium	6.2	1.0		mg/L	1	9/20/2012 10:57:05 AM
Silver	ND	0.0050		mg/L	1	9/17/2012 8:25:50 PM
Sodium	2100	50		mg/L	50	9/20/2012 11:04:39 AM
Zinc	0.010	0.010		mg/L	1	9/17/2012 8:25:50 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBD</b>
Arsenic	ND	0.0050		mg/L	5	9/27/2012 2:05:38 PM
Lead	ND	0.0050		mg/L	5	9/27/2012 2:05:38 PM
Selenium	0.013	0.0050		mg/L	5	10/4/2012 2:20:50 PM
Uranium	0.011	0.010		mg/L	10	10/11/2012 4:33:36 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>IDC</b>
Mercury	ND	0.00020		mg/L	1	9/18/2012 1:38:59 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	9/15/2012 6:01:28 AM
Toluene	ND	1.0		µg/L	1	9/15/2012 6:01:28 AM
Ethylbenzene	ND	1.0		µg/L	1	9/15/2012 6:01:28 AM
Naphthalene	ND	2.0		µg/L	1	9/15/2012 6:01:28 AM
Xylenes, Total	ND	2.0		µg/L	1	9/15/2012 6:01:28 AM
Surr: 1,2-Dichloroethane-d4	89.8	70-130		%REC	1	9/15/2012 6:01:28 AM
Surr: 4-Bromofluorobenzene	89.7	70-130		%REC	1	9/15/2012 6:01:28 AM
Surr: Dibromofluoromethane	85.8	70-130		%REC	1	9/15/2012 6:01:28 AM
Surr: Toluene-d8	95.8	70-130		%REC	1	9/15/2012 6:01:28 AM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JML</b>
Conductivity	18000	0.10		µmhos/cm	10	9/18/2012 12:10:49 PM
<b>SM4500-H+B: PH</b>						Analyst: <b>IDC</b>

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 P Sample pH greater than 2  
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1209595**

Date Reported: **10/29/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Yates Inex Pit

**Collection Date:** 9/12/2012 11:35:00 AM

**Lab ID:** 1209595-002

**Matrix:** AQUEOUS

**Received Date:** 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>IDC</b></span>						
pH	7.01	1.68	H	pH units	1	9/14/2012 8:48:52 PM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>IDC</b></span>						
Bicarbonate (As CaCO3)	170	20		mg/L CaCO3	1	9/14/2012 8:48:52 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	9/14/2012 8:48:52 PM
Total Alkalinity (as CaCO3)	170	20		mg/L CaCO3	1	9/14/2012 8:48:52 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>KS</b></span>						
Total Dissolved Solids	11700	200		mg/L	1	9/18/2012 4:26:00 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1209595**

Date Reported: **10/29/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Yates Inex Pit

**Collection Date:** 9/12/2012 11:50:00 AM

**Lab ID:** 1209595-003

**Matrix:** AQUEOUS

**Received Date:** 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Fluoride	ND	2.0		mg/L	20	9/15/2012 1:59:06 AM
Chloride	7700	500		mg/L	1000	9/17/2012 4:30:17 PM
Bromide	2.8	2.0		mg/L	20	9/15/2012 1:59:06 AM
Nitrate+Nitrite as N	ND	10		mg/L	50	9/18/2012 11:07:39 PM
Phosphorus, Orthophosphate (As P')	ND	10	H	mg/L	20	9/18/2012 10:05:35 PM
Sulfate	970	10		mg/L	20	9/15/2012 1:59:06 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JLF</b>
Barium	0.039	0.0020		mg/L	1	9/17/2012 8:37:43 PM
Cadmium	ND	0.0020		mg/L	1	9/17/2012 8:37:43 PM
Calcium	1700	50		mg/L	50	9/20/2012 11:28:15 AM
Chromium	ND	0.0060		mg/L	1	9/17/2012 8:37:43 PM
Copper	ND	0.0060		mg/L	1	9/20/2012 11:08:15 AM
Iron	0.026	0.020		mg/L	1	9/20/2012 11:08:15 AM
Magnesium	600	10		mg/L	10	9/20/2012 11:12:02 AM
Manganese	0.013	0.0020		mg/L	1	9/17/2012 8:37:43 PM
Potassium	6.8	1.0		mg/L	1	9/20/2012 11:08:15 AM
Silver	ND	0.0050		mg/L	1	9/17/2012 8:37:43 PM
Sodium	2100	50		mg/L	50	9/20/2012 11:28:15 AM
Zinc	0.011	0.010		mg/L	1	9/17/2012 8:37:43 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBD</b>
Arsenic	ND	0.0050		mg/L	5	9/27/2012 2:09:34 PM
Lead	ND	0.0050		mg/L	5	9/27/2012 2:09:34 PM
Selenium	0.017	0.0050		mg/L	5	10/4/2012 2:24:46 PM
Uranium	0.016	0.010		mg/L	10	10/11/2012 4:35:28 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>IDC</b>
Mercury	ND	0.00020		mg/L	1	9/18/2012 1:40:47 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	9/15/2012 6:29:26 AM
Toluene	ND	1.0		µg/L	1	9/15/2012 6:29:26 AM
Ethylbenzene	ND	1.0		µg/L	1	9/15/2012 6:29:26 AM
Naphthalene	ND	2.0		µg/L	1	9/15/2012 6:29:26 AM
Xylenes, Total	ND	2.0		µg/L	1	9/15/2012 6:29:26 AM
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	1	9/15/2012 6:29:26 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%REC	1	9/15/2012 6:29:26 AM
Surr: Dibromofluoromethane	82.1	70-130		%REC	1	9/15/2012 6:29:26 AM
Surr: Toluene-d8	95.2	70-130		%REC	1	9/15/2012 6:29:26 AM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JML</b>
Conductivity	24000	0.10		µmhos/cm	10	9/18/2012 12:14:57 PM
<b>SM4500-H+B: PH</b>						Analyst: <b>IDC</b>

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1209595**

Date Reported: **10/29/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Yates Inex Pit

**Collection Date:** 9/12/2012 11:50:00 AM

**Lab ID:** 1209595-003

**Matrix:** AQUEOUS

**Received Date:** 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>IDC</b></span>						
pH	6.89	1.68	H	pH units	1	9/14/2012 9:00:02 PM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>IDC</b></span>						
Bicarbonate (As CaCO3)	190	20		mg/L CaCO3	1	9/14/2012 9:00:02 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	9/14/2012 9:00:02 PM
Total Alkalinity (as CaCO3)	190	20		mg/L CaCO3	1	9/14/2012 9:00:02 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>KS</b></span>						
Total Dissolved Solids	15700	200		mg/L	1	9/18/2012 4:26:00 PM

<b>Qualifiers:</b>	<ul style="list-style-type: none"> <li>* Value exceeds Maximum Contaminant Level.</li> <li>E Value above quantitation range</li> <li>J Analyte detected below quantitation limits</li> <li>P Sample pH greater than 2</li> <li>RL Reporting Detection Limit</li> </ul>	<ul style="list-style-type: none"> <li>B Analyte detected in the associated Method Blank</li> <li>H Holding times for preparation or analysis exceeded</li> <li>ND Not Detected at the Reporting Limit</li> <li>R RPD outside accepted recovery limits</li> <li>S Spike Recovery outside accepted recovery limits</li> </ul>
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## Analytical Report

Lab Order 1209595

Date Reported: 10/29/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-2

Project: Yates Inex Pit

Collection Date: 9/12/2012 12:15:00 PM

Lab ID: 1209595-004

Matrix: AQUEOUS

Received Date: 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Fluoride	ND	2.0		mg/L	20	9/15/2012 2:23:55 AM
Chloride	900	50		mg/L	100	9/17/2012 4:42:42 PM
Bromide	0.49	0.10		mg/L	1	9/15/2012 2:11:31 AM
Nitrate+Nitrite as N	ND	2.0		mg/L	10	9/18/2012 11:20:04 PM
Phosphorus, Orthophosphate (As P')	ND	10	H	mg/L	20	9/18/2012 10:18:01 PM
Sulfate	910	10		mg/L	20	9/15/2012 2:23:55 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: JLF
Barium	0.015	0.0020		mg/L	1	9/17/2012 8:53:16 PM
Cadmium	ND	0.0020		mg/L	1	9/17/2012 8:53:16 PM
Calcium	480	10		mg/L	10	9/20/2012 11:35:39 AM
Chromium	ND	0.0060		mg/L	1	9/17/2012 8:53:16 PM
Copper	ND	0.0060		mg/L	1	9/20/2012 11:31:51 AM
Iron	0.032	0.020		mg/L	1	9/20/2012 11:31:51 AM
Magnesium	180	10		mg/L	10	9/20/2012 11:35:39 AM
Manganese	0.0024	0.0020		mg/L	1	9/17/2012 8:53:16 PM
Potassium	2.3	1.0		mg/L	1	9/20/2012 11:31:51 AM
Silver	ND	0.0050		mg/L	1	9/17/2012 8:53:16 PM
Sodium	170	10		mg/L	10	9/20/2012 11:35:39 AM
Zinc	ND	0.010		mg/L	1	9/17/2012 8:53:16 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: DBD
Arsenic	0.0013	0.0010		mg/L	1	9/27/2012 2:13:30 PM
Lead	ND	0.0010		mg/L	1	9/27/2012 2:13:30 PM
Selenium	0.0069	0.0010		mg/L	1	10/25/2012 2:06:40 PM
Uranium	0.0075	0.0050		mg/L	5	10/25/2012 2:10:37 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: IDC
Mercury	ND	0.00020		mg/L	1	9/18/2012 1:42:32 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: DJF
Benzene	ND	1.0		µg/L	1	9/15/2012 6:57:24 AM
Toluene	ND	1.0		µg/L	1	9/15/2012 6:57:24 AM
Ethylbenzene	ND	1.0		µg/L	1	9/15/2012 6:57:24 AM
Naphthalene	ND	2.0		µg/L	1	9/15/2012 6:57:24 AM
Xylenes, Total	ND	2.0		µg/L	1	9/15/2012 6:57:24 AM
Surr: 1,2-Dichloroethane-d4	91.0	70-130		%REC	1	9/15/2012 6:57:24 AM
Surr: 4-Bromofluorobenzene	93.3	70-130		%REC	1	9/15/2012 6:57:24 AM
Surr: Dibromofluoromethane	86.7	70-130		%REC	1	9/15/2012 6:57:24 AM
Surr: Toluene-d8	97.4	70-130		%REC	1	9/15/2012 6:57:24 AM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: IDC
Conductivity	4200	0.010		µmhos/cm	1	9/14/2012 9:12:42 PM
<b>SM4500-H+B: PH</b>						Analyst: IDC

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1209595**

Date Reported: **10/29/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Yates Inex Pit

**Collection Date:** 9/12/2012 12:15:00 PM

**Lab ID:** 1209595-004

**Matrix:** AQUEOUS

**Received Date:** 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>IDC</b></span>						
pH	7.31	1.68	H	pH units	1	9/14/2012 9:12:42 PM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>IDC</b></span>						
Bicarbonate (As CaCO3)	160	20		mg/L CaCO3	1	9/14/2012 9:12:42 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	9/14/2012 9:12:42 PM
Total Alkalinity (as CaCO3)	160	20		mg/L CaCO3	1	9/14/2012 9:12:42 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>KS</b></span>						
Total Dissolved Solids	3140	40.0		mg/L	1	9/18/2012 4:26:00 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1209595**

Date Reported: **10/29/2012**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** TRIP BLANK

**Project:** Yates Inex Pit

**Collection Date:**

**Lab ID:** 1209595-005

**Matrix:** TRIP BLANK

**Received Date:** 9/14/2012 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	9/15/2012 7:25:20 AM
Toluene	ND	1.0		µg/L	1	9/15/2012 7:25:20 AM
Ethylbenzene	ND	1.0		µg/L	1	9/15/2012 7:25:20 AM
Naphthalene	ND	2.0		µg/L	1	9/15/2012 7:25:20 AM
Xylenes, Total	ND	2.0		µg/L	1	9/15/2012 7:25:20 AM
Surr: 1,2-Dichloroethane-d4	92.0	70-130		%REC	1	9/15/2012 7:25:20 AM
Surr: 4-Bromofluorobenzene	92.2	70-130		%REC	1	9/15/2012 7:25:20 AM
Surr: Dibromofluoromethane	86.2	70-130		%REC	1	9/15/2012 7:25:20 AM
Surr: Toluene-d8	96.3	70-130		%REC	1	9/15/2012 7:25:20 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3		MW-1		MW-4		MW-2	
	1209595-01	1209595-02	1209595-03	1209595-04	mg/L	meq/L	mg/L	meq/L
<b>CATIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	13000	565.46	2100	91.34	2100	91.34	170	7.39
Potassium	29.0	0.74	6.2	0.16	6.8	0.17	2.3	0.06
Calcium	2300	114.77	1100	54.89	1700	84.83	480	23.95
Magnesium	830	68.31	390	32.10	600	49.38	180	14.81
<b>Total Cations</b>		749.29		178.49		225.73		46.22
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2300	47.89	1100	22.90	970	20.20	910	18.95
Chloride	29000	818.05	5600	157.97	7700	217.21	900	25.39
Bicarbonate (CaCO3)	250	5.00	170	3.40	190	3.80	160	3.20
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)								
Fluoride								
Bromide	8.8	0.11			2.8	0.04	0.49	0.01
<b>Total Anions</b>		871.05		184.27		241.24		47.54
<b>Elect. Cond. (µMhos/cm)</b>	90000		18000		24000		4200	
<b>CATION/ANION RATIO</b>		0.86		0.97		0.94		0.97
% Difference		8		2		3		1
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	46100		11700		15700		3140	
TDS (calculated)	47618		10398		13194		2739	
Ratio meas TDS:calc TDS		1.0		1.1		1.2		1.1
Ratio Meas. TDS:EC		0.51		0.65		0.65		0.75
Ratio Calc. TDS:EC		0.53		0.58		0.55		0.65
Ratio of anion sum:EC		1.0		1.0		1.0		1.1
Ratio of cation sum:EC		0.8		1.0		0.9		1.1

\* Analyte not detected (below method detection limit).  
 \*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.  
**GENERALLY ACCEPTED RANGES**  
 Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%  
 Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.  
 Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5587</b>		RunNo: <b>5587</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>160071</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5587</b>		RunNo: <b>5587</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>160072</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.8	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.3	85	115			
Chromium	0.48	0.0060	0.5000	0	96.6	85	115			
Manganese	0.48	0.0020	0.5000	0	96.0	85	115			
Potassium	47	1.0	50.00	0	94.3	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			
Zinc	0.47	0.010	0.5000	0	95.0	85	115			

Sample ID <b>1209592-001CMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5587</b>		RunNo: <b>5587</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>160077</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.03755	93.5	70	130			
Cadmium	0.50	0.0020	0.5000	0	101	70	130			
Chromium	0.57	0.0060	0.5000	0.1003	93.8	70	130			
Potassium	60	1.0	50.00	10.58	98.2	70	130			
Silver	0.10	0.0050	0.1000	0	105	70	130			
Zinc	0.47	0.010	0.5000	0.05281	82.7	70	130			

Sample ID <b>1209592-001CMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5587</b>		RunNo: <b>5587</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>160078</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0.03755	94.2	70	130	0.720	20	
Cadmium	0.51	0.0020	0.5000	0	101	70	130	0.433	20	
Chromium	0.57	0.0060	0.5000	0.1003	93.3	70	130	0.387	20	
Potassium	60	1.0	50.00	10.58	99.4	70	130	1.04	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	1209592-001CMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5587		RunNo:	5587				
Prep Date:			Analysis Date:	9/17/2012		SeqNo:	160078		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Silver	0.11	0.0050	0.1000	0	106	70	130	1.19	20		
Zinc	0.47	0.010	0.5000	0.05281	83.0	70	130	0.370	20		

Sample ID	1209592-001CMS		SampType:	MS		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5587		RunNo:	5587				
Prep Date:			Analysis Date:	9/17/2012		SeqNo:	160083		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Manganese	3.8	0.010	2.500	1.409	95.7	70	130				

Sample ID	1209592-001CMSD		SampType:	MSD		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5587		RunNo:	5587				
Prep Date:			Analysis Date:	9/17/2012		SeqNo:	160084		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Manganese	3.9	0.010	2.500	1.409	99.1	70	130	2.22	20		

Sample ID	MB		SampType:	MBLK		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	PBW		Batch ID:	R5654		RunNo:	5654				
Prep Date:			Analysis Date:	9/20/2012		SeqNo:	161891		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium	ND	1.0									
Copper	ND	0.0060									
Iron	ND	0.020									
Magnesium	ND	1.0									
Potassium	ND	1.0									
Sodium	ND	1.0									

Sample ID	LCS		SampType:	LCS		TestCode:	EPA Method 200.7: Dissolved Metals				
Client ID:	LCSW		Batch ID:	R5654		RunNo:	5654				
Prep Date:			Analysis Date:	9/20/2012		SeqNo:	161892		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium	51	1.0	50.00	0	103	85	115				
Copper	0.50	0.0060	0.5000	0	99.4	85	115				
Iron	0.50	0.020	0.5000	0	100	85	115				
Magnesium	51	1.0	50.00	0	102	85	115				
Potassium	49	1.0	50.00	0	97.9	85	115				
Sodium	50	1.0	50.00	0	100	85	115				

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>1209632-001CMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5654</b>	RunNo:	<b>5654</b>					
Prep Date:		Analysis Date:	<b>9/20/2012</b>	SeqNo:	<b>161948</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	78	1.0	50.00	27.57	101	70	130			
Magnesium	58	1.0	50.00	6.323	104	70	130			

Sample ID	<b>1209632-001CMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5654</b>	RunNo:	<b>5654</b>					
Prep Date:		Analysis Date:	<b>9/20/2012</b>	SeqNo:	<b>161949</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	78	1.0	50.00	27.57	102	70	130	0.345	20	
Magnesium	59	1.0	50.00	6.323	105	70	130	0.680	20	

Sample ID	<b>MB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R6431</b>	RunNo:	<b>6431</b>					
Prep Date:		Analysis Date:	<b>10/23/2012</b>	SeqNo:	<b>184772</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	ND	0.0060								

Sample ID	<b>LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R6431</b>	RunNo:	<b>6431</b>					
Prep Date:		Analysis Date:	<b>10/23/2012</b>	SeqNo:	<b>184773</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	0.47	0.0060	0.5000	0	94.7	85	115			

Sample ID	<b>1210A28-002AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R6431</b>	RunNo:	<b>6431</b>					
Prep Date:		Analysis Date:	<b>10/23/2012</b>	SeqNo:	<b>184831</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	3.2	0.030	2.500	0.8584	91.9	70	130			

Sample ID	<b>1210A28-002AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R6431</b>	RunNo:	<b>6431</b>					
Prep Date:		Analysis Date:	<b>10/23/2012</b>	SeqNo:	<b>184832</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Copper	3.1	0.030	2.500	0.8584	91.4	70	130	0.356	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	1209596-001BMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5818		RunNo:	5818				
Prep Date:			Analysis Date:	9/27/2012		SeqNo:	167338	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.026	0.0010	0.02500	0.0003032	102	70	130				
Lead	0.026	0.0010	0.02500	.00005721	103	70	130				

Sample ID	1209597-002CMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5818		RunNo:	5818				
Prep Date:			Analysis Date:	9/27/2012		SeqNo:	167344	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.11	0.0050	0.1250	0.004703	88.0	70	130				
Lead	0.13	0.0050	0.1250	0	102	70	130				

Sample ID	1209B02-006AMS		SampType:	MS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	BatchQC		Batch ID:	R5818		RunNo:	5818				
Prep Date:			Analysis Date:	9/27/2012		SeqNo:	167354	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0.0003463	97.4	70	130				
Lead	0.026	0.0010	0.02500	0.0004874	101	70	130				

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	LCSW		Batch ID:	R5818		RunNo:	5818				
Prep Date:			Analysis Date:	9/27/2012		SeqNo:	167361	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.026	0.0010	0.02500	0	104	85	115				
Lead	0.026	0.0010	0.02500	0	102	85	115				

Sample ID	LCS		SampType:	LCS		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	LCSW		Batch ID:	R5818		RunNo:	5818				
Prep Date:			Analysis Date:	9/27/2012		SeqNo:	167362	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0	98.2	85	115				
Lead	0.025	0.0010	0.02500	0	102	85	115				

Sample ID	MB		SampType:	MBLK		TestCode:	EPA 200.8: Dissolved Metals				
Client ID:	PBW		Batch ID:	R5818		RunNo:	5818				
Prep Date:			Analysis Date:	9/27/2012		SeqNo:	167365	Units:	mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Lead	ND	0.0010									

**Qualifiers:**

* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E Value above quantitation range	H Holding times for preparation or analysis exceeded
J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
P Sample pH greater than 2	R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5818</b>		RunNo: <b>5818</b>							
Prep Date:	Analysis Date: <b>9/27/2012</b>		SeqNo: <b>167367</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Lead	ND	0.0010								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5990</b>		RunNo: <b>5990</b>							
Prep Date:	Analysis Date: <b>10/4/2012</b>		SeqNo: <b>172606</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0010	0.02500	0	111	85	115			

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5990</b>		RunNo: <b>5990</b>							
Prep Date:	Analysis Date: <b>10/4/2012</b>		SeqNo: <b>172607</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.028	0.0010	0.02500	0	112	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5990</b>		RunNo: <b>5990</b>							
Prep Date:	Analysis Date: <b>10/4/2012</b>		SeqNo: <b>172608</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5990</b>		RunNo: <b>5990</b>							
Prep Date:	Analysis Date: <b>10/4/2012</b>		SeqNo: <b>172610</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R6175</b>		RunNo: <b>6175</b>							
Prep Date:	Analysis Date: <b>10/11/2012</b>		SeqNo: <b>178034</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.026	0.0010	0.02500	0	106	85	115			

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R6175</b>		RunNo: <b>6175</b>							
Prep Date:	Analysis Date: <b>10/11/2012</b>		SeqNo: <b>178035</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions  
**Project:** Yates Inex Pit

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R6175</b>		RunNo: <b>6175</b>							
Prep Date:	Analysis Date: <b>10/11/2012</b>		SeqNo: <b>178035</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.027	0.0010	0.02500	0	110	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R6175</b>		RunNo: <b>6175</b>							
Prep Date:	Analysis Date: <b>10/11/2012</b>		SeqNo: <b>178036</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R6175</b>		RunNo: <b>6175</b>							
Prep Date:	Analysis Date: <b>10/11/2012</b>		SeqNo: <b>178037</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	ND	0.0010								

Sample ID <b>1210675-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R6483</b>		RunNo: <b>6483</b>							
Prep Date:	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187127</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.025	0.0010	0.02500	0	99.3	70	130			

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R6483</b>		RunNo: <b>6483</b>							
Prep Date:	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187129</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.027	0.0010	0.02500	.00002754	109	85	115			

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R6483</b>		RunNo: <b>6483</b>							
Prep Date:	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187130</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.028	0.0010	0.02500	.00001670	113	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R6483</b>		RunNo: <b>6483</b>							
Prep Date:	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187131</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R6483</b>		RunNo: <b>6483</b>							
Prep Date:	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187132</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R6483</b>		RunNo: <b>6483</b>							
Prep Date:	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187168</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	0.026	0.0010	0.02500	0	104	85	115			
Uranium	0.027	0.0010	0.02500	0	109	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R6483</b>		RunNo: <b>6483</b>							
Prep Date:	Analysis Date: <b>10/25/2012</b>		SeqNo: <b>187169</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Selenium	ND	0.0010								
Uranium	ND	0.0010								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>MB-3781</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>3781</b>	RunNo:	<b>5593</b>					
Prep Date:	<b>9/17/2012</b>	Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>161626</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-3781</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>3781</b>	RunNo:	<b>5593</b>					
Prep Date:	<b>9/17/2012</b>	Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>161627</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.3	80	120			

Sample ID	<b>1209231-001BMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>3781</b>	RunNo:	<b>5593</b>					
Prep Date:	<b>9/17/2012</b>	Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>161630</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.0	75	125			

Sample ID	<b>1209231-001BMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>3781</b>	RunNo:	<b>5593</b>					
Prep Date:	<b>9/17/2012</b>	Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>161631</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.9	75	125	0.138	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5567</b>		RunNo: <b>5567</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159332</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	ND	0.10								
Bromide	ND	0.10								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5567</b>		RunNo: <b>5567</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159333</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.52	0.10	0.5000	0	104	90	110			
Bromide	2.5	0.10	2.500	0	98.1	90	110			
Sulfate	9.7	0.50	10.00	0	97.0	90	110			

Sample ID <b>1209585-007AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5567</b>		RunNo: <b>5567</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159363</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Bromide	2.3	0.10	2.500	0.1036	88.4	83.3	107			
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Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5567</b>		RunNo: <b>5567</b>							
Prep Date:	Analysis Date: <b>9/15/2012</b>		SeqNo: <b>159386</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	ND	0.10								
Bromide	ND	0.10								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5567</b>		RunNo: <b>5567</b>							
Prep Date:	Analysis Date: <b>9/15/2012</b>		SeqNo: <b>159387</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.47	0.10	0.5000	0	93.1	90	110			
Bromide	2.3	0.10	2.500	0	91.2	90	110			
Sulfate	9.1	0.50	10.00	0	90.9	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5581</b>		RunNo: <b>5581</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>159756</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5581</b>		RunNo: <b>5581</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>159757</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Chloride	4.8	0.50	5.000	0	96.6	90	110			
Phosphorus, Orthophosphate (As P	5.1	0.50	5.000	0	103	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			

Sample ID <b>1209619-002AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5581</b>		RunNo: <b>5581</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>159761</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0.1394	69.5	76.6	110			S

Sample ID <b>1209619-002AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5581</b>		RunNo: <b>5581</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>159762</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0.1394	69.7	76.6	110	0.185	20	S

Sample ID <b>1209643-003AMS</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5581</b>		RunNo: <b>5581</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>159772</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.3314	96.2	76.6	110			
Phosphorus, Orthophosphate (As P	6.4	0.50	5.000	1.672	93.8	74.5	115			

Sample ID <b>1209643-003AMSD</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5581</b>		RunNo: <b>5581</b>							
Prep Date:	Analysis Date: <b>9/17/2012</b>		SeqNo: <b>159773</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>1209643-003AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5581</b>	RunNo:	<b>5581</b>					
Prep Date:		Analysis Date:	<b>9/17/2012</b>	SeqNo:	<b>159773</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.81	0.10	0.5000	0.3314	95.9	76.6	110	0.173	20	
Phosphorus, Orthophosphate (As P)	6.4	0.50	5.000	1.672	95.3	74.5	115	1.24	20	

Sample ID	<b>MB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R5616</b>	RunNo:	<b>5616</b>					
Prep Date:		Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160944</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID	<b>LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R5616</b>	RunNo:	<b>5616</b>					
Prep Date:		Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160945</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.3	90	110			
Phosphorus, Orthophosphate (As P)	4.8	0.50	5.000	0	96.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.7	90	110			

Sample ID	<b>1209664-007AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5616</b>	RunNo:	<b>5616</b>					
Prep Date:		Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160961</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	97.3	74.5	115			
Nitrate+Nitrite as N	4.9	0.20	3.500	1.380	101	88.6	110			

Sample ID	<b>1209664-007AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5616</b>	RunNo:	<b>5616</b>					
Prep Date:		Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160962</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Phosphorus, Orthophosphate (As P)	4.8	0.50	5.000	0	96.7	74.5	115	0.560	20	
Nitrate+Nitrite as N	4.9	0.20	3.500	1.380	100	88.6	110	0.343	20	

Sample ID	<b>1209682-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5616</b>	RunNo:	<b>5616</b>					
Prep Date:		Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160973</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>1209682-001AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5616</b>	RunNo:	<b>5616</b>					
Prep Date:		Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160973</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10	0.50	5.000	5.374	101	87.8	111			

Sample ID	<b>1209682-001AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>EPA Method 300.0: Anions</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5616</b>	RunNo:	<b>5616</b>					
Prep Date:		Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160974</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	10	0.50	5.000	5.374	101	87.8	111	0.241	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>5ml rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5561</b>		RunNo: <b>5561</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159037</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	9.7		10.00		96.5	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.5	70	130			
Surr: Dibromofluoromethane	9.8		10.00		98.3	70	130			
Surr: Toluene-d8	9.9		10.00		99.1	70	130			

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5561</b>		RunNo: <b>5561</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159040</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.8	70	130			
Toluene	18	1.0	20.00	0	89.4	80	120			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.8	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		91.3	70	130			
Surr: Dibromofluoromethane	9.3		10.00		92.6	70	130			
Surr: Toluene-d8	9.7		10.00		96.5	70	130			

Sample ID <b>1209569-001ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5561</b>		RunNo: <b>5561</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159041</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	42	2.0	40.00	0	105	66.8	128			
Toluene	38	2.0	40.00	0	95.9	70	130			
Surr: 1,2-Dichloroethane-d4	18		20.00		88.9	70	130			
Surr: 4-Bromofluorobenzene	19		20.00		94.1	70	130			
Surr: Dibromofluoromethane	16		20.00		82.5	70	130			
Surr: Toluene-d8	19		20.00		96.6	70	130			

Sample ID <b>1209569-001amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5561</b>		RunNo: <b>5561</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159042</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	38	2.0	40.00	0	95.6	66.8	128	9.16	16.7	
Toluene	35	2.0	40.00	0	88.5	70	130	8.02	18.7	
Surr: 1,2-Dichloroethane-d4	17		20.00		86.5	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	1209569-001amsd		SampType:	MSD		TestCode:	EPA Method 8260: Volatiles Short List				
Client ID:	BatchQC		Batch ID:	R5561		RunNo:	5561				
Prep Date:			Analysis Date:	9/14/2012		SeqNo:	159042		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Surr: 4-Bromofluorobenzene	19		20.00		94.3	70	130	0	0		
Surr: Dibromofluoromethane	16		20.00		79.2	70	130	0	0		
Surr: Toluene-d8	20		20.00		97.9	70	130	0	0		

Sample ID	100NG LCS2		SampType:	LCS		TestCode:	EPA Method 8260: Volatiles Short List				
Client ID:	LCSW		Batch ID:	R5561		RunNo:	5561				
Prep Date:			Analysis Date:	9/15/2012		SeqNo:	159068		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	22	1.0	20.00	0	109	70	130				
Toluene	19	1.0	20.00	0	96.9	80	120				
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.6	70	130				
Surr: 4-Bromofluorobenzene	9.1		10.00		91.1	70	130				
Surr: Dibromofluoromethane	8.8		10.00		87.6	70	130				
Surr: Toluene-d8	9.8		10.00		98.5	70	130				

Sample ID	1209594-001ams		SampType:	MS		TestCode:	EPA Method 8260: Volatiles Short List				
Client ID:	BatchQC		Batch ID:	R5561		RunNo:	5561				
Prep Date:			Analysis Date:	9/15/2012		SeqNo:	159069		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	42	2.0	40.00	0	106	66.8	128				
Toluene	38	2.0	40.00	0	94.5	70	130				
Surr: 1,2-Dichloroethane-d4	18		20.00		90.2	70	130				
Surr: 4-Bromofluorobenzene	18		20.00		91.1	70	130				
Surr: Dibromofluoromethane	17		20.00		86.2	70	130				
Surr: Toluene-d8	20		20.00		98.9	70	130				

Sample ID	1209594-001amsd		SampType:	MSD		TestCode:	EPA Method 8260: Volatiles Short List				
Client ID:	BatchQC		Batch ID:	R5561		RunNo:	5561				
Prep Date:			Analysis Date:	9/15/2012		SeqNo:	159070		Units:	µg/L	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	37	2.0	40.00	0	92.1	66.8	128	14.0	16.7		
Toluene	33	2.0	40.00	0	82.3	70	130	13.8	18.7		
Surr: 1,2-Dichloroethane-d4	18		20.00		91.5	70	130	0	0		
Surr: 4-Bromofluorobenzene	18		20.00		90.5	70	130	0	0		
Surr: Dibromofluoromethane	17		20.00		85.0	70	130	0	0		
Surr: Toluene-d8	19		20.00		97.1	70	130	0	0		

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>vcb2</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260: Volatiles Short List</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R5561</b>	RunNo:	<b>5561</b>					
Prep Date:		Analysis Date:	<b>9/15/2012</b>	SeqNo:	<b>159082</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.2	70	130			
Surr: 4-Bromofluorobenzene	9.1		10.00		90.6	70	130			
Surr: Dibromofluoromethane	8.4		10.00		83.6	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	1209593-001a dup		SampType:	DUP		TestCode:	EPA 120.1: Specific Conductance				
Client ID:	BatchQC		Batch ID:	R5566		RunNo:	5566				
Prep Date:			Analysis Date:	9/14/2012		SeqNo:	159410	Units:	µmhos/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	540	0.010						0.411	20		

Sample ID	1209596-003a dup		SampType:	DUP		TestCode:	EPA 120.1: Specific Conductance				
Client ID:	BatchQC		Batch ID:	R5566		RunNo:	5566				
Prep Date:			Analysis Date:	9/14/2012		SeqNo:	159423	Units:	µmhos/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	1800	0.010						0.224	20		

Sample ID	1209612-001a dup		SampType:	dup		TestCode:	EPA 120.1: Specific Conductance				
Client ID:	BatchQC		Batch ID:	R5600		RunNo:	5600				
Prep Date:			Analysis Date:	9/18/2012		SeqNo:	160447	Units:	µmhos/cm		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	470	0.010						1.49	20		

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>1209596-003a dup</b>	SampType:	<b>dup</b>	TestCode:	<b>SM4500-H+B: pH</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>R5566</b>	RunNo:	<b>5566</b>					
Prep Date:		Analysis Date:	<b>9/14/2012</b>	SeqNo:	<b>159563</b>	Units:	<b>pH units</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
pH	8.03	1.68								H

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>mb-1</b>	SampType: <b>MBLK</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5566</b>		RunNo: <b>5566</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159298</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID <b>ics-1</b>	SampType: <b>LCS</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5566</b>		RunNo: <b>5566</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159299</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	81	20	80.00	0	101	88.1	104			

Sample ID <b>1209585-007a ms</b>	SampType: <b>MS</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5566</b>		RunNo: <b>5566</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159306</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20	80.00	0	0	62.6	110			S

Sample ID <b>1209585-007a msd</b>	SampType: <b>MSD</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5566</b>		RunNo: <b>5566</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159307</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20	80.00	0	0	59.9	111	0	10	S

Sample ID <b>mb-2</b>	SampType: <b>MBLK</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R5566</b>		RunNo: <b>5566</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159313</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID <b>ics-2</b>	SampType: <b>LCS</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R5566</b>		RunNo: <b>5566</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159314</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	82	20	80.00	0	102	88.1	104			

Sample ID <b>1209596-003a ms</b>	SampType: <b>MS</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>BatchQC</b>	Batch ID: <b>R5566</b>		RunNo: <b>5566</b>							
Prep Date:	Analysis Date: <b>9/14/2012</b>		SeqNo: <b>159326</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	84	20	80.00	69.72	17.7	62.6	110			S

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	1209596-003a msd	SampType:	MSD	TestCode:	SM2320B: Alkalinity					
Client ID:	BatchQC	Batch ID:	R5566	RunNo:	5566					
Prep Date:		Analysis Date:	9/14/2012	SeqNo:	159327	Units:	mg/L CaCO3			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	82	20	80.00	69.72	15.9	59.9	111	1.78	10	S

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209595

29-Oct-12

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>MB-3782</b>	SampType:	<b>MBLK</b>	TestCode:	<b>SM2540C MOD: Total Dissolved Solids</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>3782</b>	RunNo:	<b>5601</b>					
Prep Date:	<b>9/17/2012</b>	Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160421</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	<b>LCS-3782</b>	SampType:	<b>LCS</b>	TestCode:	<b>SM2540C MOD: Total Dissolved Solids</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>3782</b>	RunNo:	<b>5601</b>					
Prep Date:	<b>9/17/2012</b>	Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160422</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Sample ID	<b>1209606-008AMS</b>	SampType:	<b>MS</b>	TestCode:	<b>SM2540C MOD: Total Dissolved Solids</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>3782</b>	RunNo:	<b>5601</b>					
Prep Date:	<b>9/17/2012</b>	Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160438</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1460	20.0	1000	442.0	102	80	120			

Sample ID	<b>1209606-008AMSD</b>	SampType:	<b>MSD</b>	TestCode:	<b>SM2540C MOD: Total Dissolved Solids</b>					
Client ID:	<b>BatchQC</b>	Batch ID:	<b>3782</b>	RunNo:	<b>5601</b>					
Prep Date:	<b>9/17/2012</b>	Analysis Date:	<b>9/18/2012</b>	SeqNo:	<b>160439</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1460	20.0	1000	442.0	102	80	120	0.0684	20	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Safety Env Solutions Work Order Number: 1209595

Received by/date: [Signature] 09/14/12

Logged By: Ashley Gallegos 9/14/2012 9:15:00 AM [Signature]

Completed By: Ashley Gallegos 9/14/2012 11:38:54 AM [Signature]

Reviewed By: [Signature] 09/14/12

Chain of Custody

- 1. Were seals intact? Yes No Not Present
2. Is Chain of Custody complete? Yes No Not Present
3. How was the sample delivered? FedEx

Log In

- 4. Coolers are present? (see 19. for cooler specific information) Yes No NA
5. Was an attempt made to cool the samples? Yes No NA
6. Were all samples received at a temperature of >0° C to 6.0°C Yes No NA
7. Sample(s) in proper container(s)? Yes No
8. Sufficient sample volume for indicated test(s)? Yes No
9. Are samples (except VOA and ONG) properly preserved? Yes No
10. Was preservative added to bottles? Yes No NA
11. VOA vials have zero headspace? Yes No No VOA Vials
12. Were any sample containers received broken? Yes No
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes No # of preserved bottles checked for pH:
14. Are matrices correctly identified on Chain of Custody? Yes No Adjusted?
15. Is it clear what analyses were requested? Yes No
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes No Checked by: [Signature]

Special Handling (if applicable)

- 17. Was client notified of all discrepancies with this order? Yes No NA

Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

18. Additional remarks:

19. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.0, Good, Not Present, [ ], [ ], [ ]





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

January 07, 2013

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 390-7067  
FAX (575) 393-4388

RE: Yates Inex Pit

OrderNo.: 1212373

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 5 sample(s) on 12/7/2012 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued December 21, 2012.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1212373

Date Reported: 1/7/2013

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-3

Project: Yates Inex Pit

Collection Date: 12/6/2012 11:30:00 AM

Lab ID: 1212373-001

Matrix: AQUEOUS

Received Date: 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Fluoride	2.5	1.0		mg/L	10	12/10/2012 7:47:58 PM
Chloride	26000	1000		mg/L	2000	12/12/2012 11:14:48 AM
Bromide	ND	20		mg/L	200	12/18/2012 5:12:50 PM
Nitrate+Nitrite as N	ND	40		mg/L	200	12/13/2012 9:55:38 PM
Phosphorus, Orthophosphate (As P')	ND	2.5		mg/L	5	12/8/2012 4:38:02 AM
Sulfate	2200	50		mg/L	100	12/10/2012 8:00:22 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: ELS
Barium	0.074	0.010		mg/L	5	12/11/2012 6:15:07 PM
Cadmium	ND	0.010		mg/L	5	12/11/2012 6:15:07 PM
Calcium	2100	50		mg/L	50	12/12/2012 4:12:24 PM
Chromium	ND	0.030		mg/L	5	12/11/2012 6:15:07 PM
Copper	ND	0.030		mg/L	5	12/11/2012 6:15:07 PM
Iron	0.18	0.10		mg/L	5	12/11/2012 6:15:07 PM
Magnesium	730	10		mg/L	10	12/12/2012 3:47:06 PM
Manganese	0.20	0.010	*	mg/L	5	12/11/2012 6:15:07 PM
Potassium	47	5.0		mg/L	5	12/11/2012 6:15:07 PM
Silver	ND	0.025		mg/L	5	12/11/2012 6:15:07 PM
Sodium	15000	500		mg/L	500	12/12/2012 4:16:24 PM
Zinc	ND	0.050		mg/L	5	12/11/2012 6:15:07 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: DBD
Arsenic	ND	0.010		mg/L	10	12/12/2012 12:57:28 PM
Lead	ND	0.0050		mg/L	5	12/11/2012 3:48:00 PM
Selenium	0.033	0.010		mg/L	10	12/12/2012 12:57:28 PM
Uranium	0.020	0.0050		mg/L	5	12/11/2012 3:48:00 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: TMG
Mercury	ND	0.0010		mg/L	5	12/11/2012 12:47:04 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: RAA
Benzene	ND	2.0	P	µg/L	2	12/16/2012 2:22:34 PM
Toluene	ND	2.0	P	µg/L	2	12/16/2012 2:22:34 PM
Ethylbenzene	ND	2.0	P	µg/L	2	12/16/2012 2:22:34 PM
Naphthalene	ND	4.0	P	µg/L	2	12/16/2012 2:22:34 PM
Xylenes, Total	ND	4.0	P	µg/L	2	12/16/2012 2:22:34 PM
Surr: 1,2-Dichloroethane-d4	95.3	70-130	P	%REC	2	12/16/2012 2:22:34 PM
Surr: 4-Bromofluorobenzene	100	70-130	P	%REC	2	12/16/2012 2:22:34 PM
Surr: Dibromofluoromethane	87.1	70-130	P	%REC	2	12/16/2012 2:22:34 PM
Surr: Toluene-d8	98.3	70-130	P	%REC	2	12/16/2012 2:22:34 PM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: JML
Conductivity	93000	0.50		µmhos/cm	50	12/10/2012 2:47:01 PM
<b>SM4500-H+B: PH</b>						Analyst: JML

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1212373**

Date Reported: **1/7/2013**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Yates Inex Pit

**Collection Date:** 12/6/2012 11:30:00 AM

**Lab ID:** 1212373-001

**Matrix:** AQUEOUS

**Received Date:** 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> Analyst: <b>JML</b>						
pH	6.71	1.68	H	pH units	1	12/10/2012 11:56:59 AM
<b>SM2320B: ALKALINITY</b> Analyst: <b>JML</b>						
Bicarbonate (As CaCO3)	250	20		mg/L CaCO3	1	12/10/2012 11:56:59 AM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	12/10/2012 11:56:59 AM
Total Alkalinity (as CaCO3)	250	20		mg/L CaCO3	1	12/10/2012 11:56:59 AM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> Analyst: <b>JML</b>						
Total Dissolved Solids	44000	200		mg/L	1	12/13/2012 5:15:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1212373**

Date Reported: **1/7/2013**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Yates Inex Pit

**Collection Date:** 12/6/2012 12:10:00 PM

**Lab ID:** 1212373-002

**Matrix:** AQUEOUS

**Received Date:** 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Fluoride	ND	2.0		mg/L	20	12/8/2012 5:40:04 AM
Chloride	4400	250		mg/L	500	12/12/2012 11:27:13 AM
Bromide	ND	5.0		mg/L	50	12/10/2012 8:50:00 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	12/13/2012 10:08:02 PM
Phosphorus, Orthophosphate (As P')	ND	10		mg/L	20	12/8/2012 5:40:04 AM
Sulfate	1000	25		mg/L	50	12/10/2012 8:50:00 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.029	0.0020		mg/L	1	12/11/2012 6:18:57 PM
Cadmium	ND	0.0020		mg/L	1	12/11/2012 6:18:57 PM
Calcium	930	10		mg/L	10	12/12/2012 4:20:07 PM
Chromium	ND	0.0060		mg/L	1	12/11/2012 6:18:57 PM
Copper	ND	0.0060		mg/L	1	12/11/2012 6:18:57 PM
Iron	0.039	0.020		mg/L	1	12/11/2012 6:18:57 PM
Magnesium	360	5.0		mg/L	5	12/11/2012 6:22:58 PM
Manganese	0.0044	0.0020		mg/L	1	12/11/2012 6:18:57 PM
Potassium	6.2	1.0		mg/L	1	12/11/2012 6:18:57 PM
Silver	ND	0.0050		mg/L	1	12/11/2012 6:18:57 PM
Sodium	1900	50		mg/L	50	12/12/2012 4:23:53 PM
Zinc	0.011	0.010		mg/L	1	12/11/2012 6:18:57 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBD</b>
Arsenic	ND	0.0050		mg/L	5	12/11/2012 3:40:08 PM
Lead	ND	0.0050		mg/L	5	12/11/2012 3:40:08 PM
Selenium	0.0083	0.0050		mg/L	5	12/12/2012 1:01:24 PM
Uranium	0.011	0.0050		mg/L	5	12/11/2012 3:40:08 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>TMG</b>
Mercury	ND	0.00020		mg/L	1	12/11/2012 10:36:05 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	12/16/2012 2:50:30 PM
Toluene	ND	1.0		µg/L	1	12/16/2012 2:50:30 PM
Ethylbenzene	ND	1.0		µg/L	1	12/16/2012 2:50:30 PM
Naphthalene	ND	2.0		µg/L	1	12/16/2012 2:50:30 PM
Xylenes, Total	ND	2.0		µg/L	1	12/16/2012 2:50:30 PM
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%REC	1	12/16/2012 2:50:30 PM
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	1	12/16/2012 2:50:30 PM
Surr: Dibromofluoromethane	86.0	70-130		%REC	1	12/16/2012 2:50:30 PM
Surr: Toluene-d8	98.5	70-130		%REC	1	12/16/2012 2:50:30 PM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JML</b>
Conductivity	15000	0.025		µmhos/cm	2.5	12/10/2012 2:53:10 PM
<b>SM4500-H+B: PH</b>						Analyst: <b>JML</b>

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1212373

Date Reported: 1/7/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Yates Inex Pit

**Collection Date:** 12/6/2012 12:10:00 PM

**Lab ID:** 1212373-002

**Matrix:** AQUEOUS

**Received Date:** 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b>						
pH	6.90	1.68	H	pH units	1	12/10/2012 12:13:01 PM
<b>SM2320B: ALKALINITY</b>						
Bicarbonate (As CaCO3)	180	20		mg/L CaCO3	1	12/10/2012 12:13:01 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	12/10/2012 12:13:01 PM
Total Alkalinity (as CaCO3)	180	20		mg/L CaCO3	1	12/10/2012 12:13:01 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						
Total Dissolved Solids	9660	100		mg/L	1	12/13/2012 5:15:00 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order **1212373**

Date Reported: **1/7/2013**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Yates Inex Pit

**Collection Date:** 12/6/2012 12:40:00 PM

**Lab ID:** 1212373-003

**Matrix:** AQUEOUS

**Received Date:** 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Fluoride	ND	2.0		mg/L	20	12/8/2012 5:52:29 AM
Chloride	7300	250		mg/L	500	12/12/2012 12:05:16 PM
Bromide	8.2	5.0		mg/L	50	12/10/2012 9:14:50 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	12/13/2012 10:20:26 PM
Phosphorus, Orthophosphate (As P <sup>3-</sup> )	ND	10		mg/L	20	12/8/2012 5:52:29 AM
Sulfate	930	25		mg/L	50	12/10/2012 9:14:50 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Barium	0.043	0.0020		mg/L	1	12/11/2012 6:26:49 PM
Cadmium	ND	0.0020		mg/L	1	12/11/2012 6:26:49 PM
Calcium	1800	50		mg/L	50	12/12/2012 4:33:01 PM
Chromium	ND	0.0060		mg/L	1	12/11/2012 6:26:49 PM
Copper	ND	0.0060		mg/L	1	12/11/2012 6:26:49 PM
Iron	0.031	0.020		mg/L	1	12/11/2012 6:26:49 PM
Magnesium	550	10		mg/L	10	12/12/2012 4:27:39 PM
Manganese	0.016	0.0020		mg/L	1	12/11/2012 6:26:49 PM
Potassium	7.6	1.0		mg/L	1	12/11/2012 6:26:49 PM
Silver	ND	0.0050		mg/L	1	12/11/2012 6:26:49 PM
Sodium	2100	50		mg/L	50	12/12/2012 4:33:01 PM
Zinc	ND	0.010		mg/L	1	12/11/2012 6:26:49 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBD</b>
Arsenic	ND	0.0050		mg/L	5	12/11/2012 3:44:04 PM
Lead	ND	0.0050		mg/L	5	12/11/2012 3:44:04 PM
Selenium	0.010	0.0050		mg/L	5	12/12/2012 1:05:20 PM
Uranium	0.016	0.0050		mg/L	5	12/11/2012 3:44:04 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>TMG</b>
Mercury	ND	0.00020		mg/L	1	12/11/2012 10:37:50 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	12/16/2012 4:14:49 PM
Toluene	ND	1.0		µg/L	1	12/16/2012 4:14:49 PM
Ethylbenzene	ND	1.0		µg/L	1	12/16/2012 4:14:49 PM
Naphthalene	ND	2.0		µg/L	1	12/16/2012 4:14:49 PM
Xylenes, Total	ND	2.0		µg/L	1	12/16/2012 4:14:49 PM
Surr: 1,2-Dichloroethane-d4	95.8	70-130		%REC	1	12/16/2012 4:14:49 PM
Surr: 4-Bromofluorobenzene	97.8	70-130		%REC	1	12/16/2012 4:14:49 PM
Surr: Dibromofluoromethane	86.8	70-130		%REC	1	12/16/2012 4:14:49 PM
Surr: Toluene-d8	96.0	70-130		%REC	1	12/16/2012 4:14:49 PM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JML</b>
Conductivity	22000	0.025		µmhos/cm	2.5	12/10/2012 2:57:27 PM
<b>SM4500-H+B: PH</b>						Analyst: <b>JML</b>

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1212373

Date Reported: 1/7/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Yates Inex Pit

**Collection Date:** 12/6/2012 12:40:00 PM

**Lab ID:** 1212373-003

**Matrix:** AQUEOUS

**Received Date:** 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> Analyst: <b>JML</b>						
pH	6.79	1.68	H	pH units	1	12/10/2012 12:26:40 PM
<b>SM2320B: ALKALINITY</b> Analyst: <b>JML</b>						
Bicarbonate (As CaCO3)	180	20		mg/L CaCO3	1	12/10/2012 12:26:40 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	12/10/2012 12:26:40 PM
Total Alkalinity (as CaCO3)	180	20		mg/L CaCO3	1	12/10/2012 12:26:40 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> Analyst: <b>JML</b>						
Total Dissolved Solids	14300	100		mg/L	1	12/13/2012 5:15:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

## Analytical Report

Lab Order 1212373

Date Reported: 1/7/2013

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-2

Project: Yates Inex Pit

Collection Date: 12/6/2012 1:05:00 PM

Lab ID: 1212373-004

Matrix: AQUEOUS

Received Date: 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Fluoride	0.64	0.10		mg/L	1	12/8/2012 7:06:56 AM
Chloride	850	25		mg/L	50	12/12/2012 12:17:40 PM
Bromide	ND	2.0		mg/L	20	12/8/2012 7:19:21 AM
Nitrate+Nitrite as N	ND	2.0		mg/L	10	12/13/2012 11:10:04 PM
Phosphorus, Orthophosphate (As P')	ND	10		mg/L	20	12/8/2012 7:19:21 AM
Sulfate	790	25		mg/L	50	12/10/2012 9:39:39 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: ELS
Barium	0.018	0.0020		mg/L	1	12/11/2012 6:34:39 PM
Cadmium	ND	0.0020		mg/L	1	12/11/2012 6:34:39 PM
Calcium	470	5.0		mg/L	5	12/11/2012 6:38:26 PM
Chromium	ND	0.0060		mg/L	1	12/11/2012 6:34:39 PM
Copper	ND	0.0060		mg/L	1	12/11/2012 6:34:39 PM
Iron	0.028	0.020		mg/L	1	12/11/2012 6:34:39 PM
Magnesium	180	5.0		mg/L	5	12/11/2012 6:38:26 PM
Manganese	0.0026	0.0020		mg/L	1	12/11/2012 6:34:39 PM
Potassium	2.7	1.0		mg/L	1	12/11/2012 6:34:39 PM
Silver	ND	0.0050		mg/L	1	12/11/2012 6:34:39 PM
Sodium	180	5.0		mg/L	5	12/11/2012 6:38:26 PM
Zinc	0.024	0.010		mg/L	1	12/11/2012 6:34:39 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	12/11/2012 2:01:37 PM
Lead	ND	0.0010		mg/L	1	12/11/2012 2:01:37 PM
Selenium	0.0067	0.0010		mg/L	1	12/12/2012 1:09:16 PM
Uranium	0.0089	0.0010		mg/L	1	12/11/2012 2:01:37 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	12/11/2012 10:39:34 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: RAA
Benzene	ND	1.0		µg/L	1	12/16/2012 4:43:08 PM
Toluene	ND	1.0		µg/L	1	12/16/2012 4:43:08 PM
Ethylbenzene	ND	1.0		µg/L	1	12/16/2012 4:43:08 PM
Naphthalene	ND	2.0		µg/L	1	12/16/2012 4:43:08 PM
Xylenes, Total	ND	2.0		µg/L	1	12/16/2012 4:43:08 PM
Surr: 1,2-Dichloroethane-d4	94.8	70-130		%REC	1	12/16/2012 4:43:08 PM
Surr: 4-Bromofluorobenzene	97.9	70-130		%REC	1	12/16/2012 4:43:08 PM
Surr: Dibromofluoromethane	85.3	70-130		%REC	1	12/16/2012 4:43:08 PM
Surr: Toluene-d8	97.6	70-130		%REC	1	12/16/2012 4:43:08 PM
<b>EPA 120.1: SPECIFIC CONDUCTANCE</b>						Analyst: JML
Conductivity	4100	0.010		µmhos/cm	1	12/10/2012 1:09:46 PM
<b>SM4500-H+B: PH</b>						Analyst: JML

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1212373

Date Reported: 1/7/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Yates Inex Pit

**Collection Date:** 12/6/2012 1:05:00 PM

**Lab ID:** 1212373-004

**Matrix:** AQUEOUS

**Received Date:** 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b>						
pH	7.21	1.68	H	pH units	1	12/10/2012 1:09:46 PM
<b>SM2320B: ALKALINITY</b>						
Bicarbonate (As CaCO3)	160	20		mg/L CaCO3	1	12/10/2012 1:09:46 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	12/10/2012 1:09:46 PM
Total Alkalinity (as CaCO3)	160	20		mg/L CaCO3	1	12/10/2012 1:09:46 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						
Total Dissolved Solids	2970	40.0		mg/L	1	12/13/2012 5:15:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1212373

Date Reported: 1/7/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** Trip Blank

**Project:** Yates Inex Pit

**Collection Date:**

**Lab ID:** 1212373-005

**Matrix:** AQUEOUS

**Received Date:** 12/7/2012 10:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: RAA
Benzene	ND	1.0		µg/L	1	12/16/2012 5:11:00 PM
Toluene	ND	1.0		µg/L	1	12/16/2012 5:11:00 PM
Ethylbenzene	ND	1.0		µg/L	1	12/16/2012 5:11:00 PM
Naphthalene	ND	2.0		µg/L	1	12/16/2012 5:11:00 PM
Xylenes, Total	ND	2.0		µg/L	1	12/16/2012 5:11:00 PM
Surr: 1,2-Dichloroethane-d4	95.6	70-130		%REC	1	12/16/2012 5:11:00 PM
Surr: 4-Bromofluorobenzene	96.2	70-130		%REC	1	12/16/2012 5:11:00 PM
Surr: Dibromofluoromethane	85.7	70-130		%REC	1	12/16/2012 5:11:00 PM
Surr: Toluene-d8	97.2	70-130		%REC	1	12/16/2012 5:11:00 PM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

**CATION/ANION BALANCE SHEET FOR WATER ANALYSES**

HEAL LAB NUMBER	MW-3 1212373-01		MW-1 1212373-02		MW-4 1212373-03		MW-2 1212373-04	
	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
<b>CATIONS</b>								
Sodium	15000	652.46	1900	82.64	2100	91.34	180	7.83
Potassium	47	1.20	6.2	0.16	7.6	0.19	3	0.07
Calcium	2100	104.79	930	46.41	1800	89.82	470	23.45
Magnesium	730	60.08	360	29.63	550	45.27	180	14.81
<b>Total Cations</b>		818.53		158.84		226.63		46.17
<b>ANIONS</b>								
Sulfate	2200	45.80	1000	20.82	930	19.36	790	16.45
Chloride	26000	733.43	4400	124.12	7300	205.92	850	23.98
Bicarbonate (CaCO3)	250	5.00	180	3.60	180	3.60	160	3.20
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)	2.5	0.13					0.64	0.03
Fluoride								
Bromide								
<b>Total Anions</b>		784.36		148.54		228.99		43.66
Elect. Cond. (µMhos/cm)	93000		15000		22000		4100	
<b>CATION/ANION RATIO</b>		1.04		1.07		0.99		1.06
% Difference		2		3		1		3
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	44000		9660		14300		2970	
TDS (calculated)	46230		8704		12804		2569	
Ratio meas TDS:calc TDS		1.0		1.1		1.1		1.2
Ratio Meas. TDS:EC		0.47		0.64		0.65		0.72
Ratio Calc. TDS:EC		0.50		0.58		0.58		0.63
Ratio of anion sum:EC		0.8		1.0		1.0		1.1
Ratio of cation sum:EC		0.9		1.1		1.0		1.1

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7435</b>		RunNo: <b>7435</b>							
Prep Date:	Analysis Date: <b>12/11/2012</b>		SeqNo: <b>215488</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7435</b>		RunNo: <b>7435</b>							
Prep Date:	Analysis Date: <b>12/11/2012</b>		SeqNo: <b>215489</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	103	85	115			
Cadmium	0.52	0.0020	0.5000	0	103	85	115			
Calcium	51	1.0	50.00	0	102	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Copper	0.51	0.0060	0.5000	0	103	85	115			
Iron	0.50	0.020	0.5000	0	101	85	115			
Magnesium	52	1.0	50.00	0	104	85	115			
Manganese	0.50	0.0020	0.5000	0	99.9	85	115			
Potassium	51	1.0	50.00	0	103	85	115			
Silver	0.10	0.0050	0.1000	0	104	85	115			
Sodium	52	1.0	50.00	0	104	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7459</b>		RunNo: <b>7459</b>							
Prep Date:	Analysis Date: <b>12/12/2012</b>		SeqNo: <b>216090</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Sodium	ND	1.0								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>						
Client ID:	<b>LCSW</b>	Batch ID: <b>R7459</b>		RunNo: <b>7459</b>						
Prep Date:		Analysis Date: <b>12/12/2012</b>		SeqNo: <b>216091</b>		Units: <b>mg/L</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	49	1.0	50.00	0	97.7	85	115			
Magnesium	49	1.0	50.00	0	98.9	85	115			
Sodium	49	1.0	50.00	0	97.2	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>LCS</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA 200.8: Dissolved Metals</b>				
Client ID:	<b>LCSW</b>		Batch ID:	<b>R7429</b>		RunNo:	<b>7429</b>				
Prep Date:			Analysis Date:	<b>12/11/2012</b>		SeqNo:	<b>215282</b>		Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.028	0.0010	0.02500	0	111	85	115				
Lead	0.026	0.0010	0.02500	0	104	85	115				
Uranium	0.027	0.0010	0.02500	.00001042	107	85	115				

Sample ID	<b>LCS</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA 200.8: Dissolved Metals</b>				
Client ID:	<b>LCSW</b>		Batch ID:	<b>R7429</b>		RunNo:	<b>7429</b>				
Prep Date:			Analysis Date:	<b>12/11/2012</b>		SeqNo:	<b>215283</b>		Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.027	0.0010	0.02500	0	110	85	115				
Lead	0.026	0.0010	0.02500	0	106	85	115				
Uranium	0.028	0.0010	0.02500	0	113	85	115				

Sample ID	<b>MB</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA 200.8: Dissolved Metals</b>				
Client ID:	<b>PBW</b>		Batch ID:	<b>R7429</b>		RunNo:	<b>7429</b>				
Prep Date:			Analysis Date:	<b>12/11/2012</b>		SeqNo:	<b>215284</b>		Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Lead	ND	0.0010									
Uranium	ND	0.0010									

Sample ID	<b>MB</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA 200.8: Dissolved Metals</b>				
Client ID:	<b>PBW</b>		Batch ID:	<b>R7429</b>		RunNo:	<b>7429</b>				
Prep Date:			Analysis Date:	<b>12/11/2012</b>		SeqNo:	<b>215285</b>		Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.0010									
Lead	ND	0.0010									
Uranium	ND	0.0010									

Sample ID	<b>LCS</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA 200.8: Dissolved Metals</b>				
Client ID:	<b>LCSW</b>		Batch ID:	<b>R7464</b>		RunNo:	<b>7464</b>				
Prep Date:			Analysis Date:	<b>12/12/2012</b>		SeqNo:	<b>216494</b>		Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.025	0.0010	0.02500	0	100	85	115				
Selenium	0.025	0.0010	0.02500	0	100	85	115				

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7464</b>		RunNo: <b>7464</b>							
Prep Date:	Analysis Date: <b>12/12/2012</b>		SeqNo: <b>216496</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	102	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7464</b>		RunNo: <b>7464</b>							
Prep Date:	Analysis Date: <b>12/12/2012</b>		SeqNo: <b>216498</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7464</b>		RunNo: <b>7464</b>							
Prep Date:	Analysis Date: <b>12/12/2012</b>		SeqNo: <b>216499</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>MB-5193</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>5193</b>	RunNo:	<b>7439</b>					
Prep Date:	<b>12/10/2012</b>	Analysis Date:	<b>12/11/2012</b>	SeqNo:	<b>215580</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-5193</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>5193</b>	RunNo:	<b>7439</b>					
Prep Date:	<b>12/10/2012</b>	Analysis Date:	<b>12/11/2012</b>	SeqNo:	<b>215581</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.3	80	120			

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7396</b>		RunNo: <b>7396</b>							
Prep Date:	Analysis Date: <b>12/7/2012</b>		SeqNo: <b>214256</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7396</b>		RunNo: <b>7396</b>							
Prep Date:	Analysis Date: <b>12/7/2012</b>		SeqNo: <b>214257</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.47	0.10	0.5000	0	93.6	90	110			
Bromide	2.3	0.10	2.500	0	92.9	90	110			
Phosphorus, Orthophosphate (As P)	4.9	0.50	5.000	0	97.7	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7396</b>		RunNo: <b>7396</b>							
Prep Date:	Analysis Date: <b>12/8/2012</b>		SeqNo: <b>214333</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7396</b>		RunNo: <b>7396</b>							
Prep Date:	Analysis Date: <b>12/8/2012</b>		SeqNo: <b>214334</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.50	0.10	0.5000	0	100	90	110			
Bromide	2.4	0.10	2.500	0	96.0	90	110			
Phosphorus, Orthophosphate (As P)	5.3	0.50	5.000	0	107	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7419</b>		RunNo: <b>7419</b>							
Prep Date:	Analysis Date: <b>12/10/2012</b>		SeqNo: <b>215025</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	ND	0.10								
Bromide	ND	0.10								
Sulfate	ND	0.50								

**Qualifiers:**

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- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7419</b>		RunNo: <b>7419</b>							
Prep Date:	Analysis Date: <b>12/10/2012</b>		SeqNo: <b>215026</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	97.7	90	110			
Bromide	2.3	0.10	2.500	0	93.4	90	110			
Sulfate	9.4	0.50	10.00	0	94.1	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7462</b>		RunNo: <b>7462</b>							
Prep Date:	Analysis Date: <b>12/12/2012</b>		SeqNo: <b>216326</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7462</b>		RunNo: <b>7462</b>							
Prep Date:	Analysis Date: <b>12/12/2012</b>		SeqNo: <b>216327</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.7	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7503</b>		RunNo: <b>7503</b>							
Prep Date:	Analysis Date: <b>12/13/2012</b>		SeqNo: <b>217525</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7503</b>		RunNo: <b>7503</b>							
Prep Date:	Analysis Date: <b>12/13/2012</b>		SeqNo: <b>217526</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.4	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7591</b>		RunNo: <b>7591</b>							
Prep Date:	Analysis Date: <b>12/18/2012</b>		SeqNo: <b>220473</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>LCS-b</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7591</b>		RunNo: <b>7591</b>							
Prep Date:	Analysis Date: <b>12/18/2012</b>		SeqNo: <b>220475</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.3	0.10	2.500	0	92.7	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7591</b>		RunNo: <b>7591</b>							
Prep Date:	Analysis Date: <b>12/18/2012</b>		SeqNo: <b>220529</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	ND	0.10								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7591</b>		RunNo: <b>7591</b>							
Prep Date:	Analysis Date: <b>12/18/2012</b>		SeqNo: <b>220530</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Bromide	2.4	0.10	2.500	0	95.2	90	110			

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>b11</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7525</b>		RunNo: <b>7525</b>							
Prep Date:	Analysis Date: <b>12/16/2012</b>		SeqNo: <b>218330</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	9.6		10.00		95.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	8.8		10.00		87.6	70	130			
Surr: Toluene-d8	9.9		10.00		98.6	70	130			

Sample ID <b>100ng lcs2</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7525</b>		RunNo: <b>7525</b>							
Prep Date:	Analysis Date: <b>12/16/2012</b>		SeqNo: <b>218331</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.9	70	130			
Toluene	21	1.0	20.00	0	104	80	120			
Surr: 1,2-Dichloroethane-d4	9.5		10.00		95.4	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.6	70	130			
Surr: Dibromofluoromethane	8.4		10.00		84.2	70	130			
Surr: Toluene-d8	9.7		10.00		97.5	70	130			

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID <b>mb-1</b>	SampType: <b>MBLK</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R7447</b>		RunNo: <b>7447</b>							
Prep Date:	Analysis Date: <b>12/10/2012</b>		SeqNo: <b>215882</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID <b>ics-1</b>	SampType: <b>LCS</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R7447</b>		RunNo: <b>7447</b>							
Prep Date:	Analysis Date: <b>12/10/2012</b>		SeqNo: <b>215883</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	81	20	80.00	0	102	88.1	104			

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1212373

07-Jan-13

**Client:** Safety & Environmental Solutions

**Project:** Yates Inex Pit

Sample ID	<b>MB-5235</b>	SampType:	<b>MBLK</b>	TestCode:	<b>SM2540C MOD: Total Dissolved Solids</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>5235</b>	RunNo:	<b>7485</b>					
Prep Date:	<b>12/12/2012</b>	Analysis Date:	<b>12/13/2012</b>	SeqNo:	<b>216983</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	<b>LCS-5235</b>	SampType:	<b>LCS</b>	TestCode:	<b>SM2540C MOD: Total Dissolved Solids</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>5235</b>	RunNo:	<b>7485</b>					
Prep Date:	<b>12/12/2012</b>	Analysis Date:	<b>12/13/2012</b>	SeqNo:	<b>216984</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87105
TEL: 505-345-3975 FAX: 505-345-410;
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Safety Env Solutions Work Order Number: 1212373
Received by/date: [Signature] 12/07/12
Logged By: Michelle Garcia 12/7/2012 10:45:00 AM
Completed By: Michelle Garcia 12/7/2012 3:30:27 PM
Reviewed By: [Signature] 12/07/12

Chain of Custody

- 1. Were seals intact? Yes [ ] No [ ] Not Present [x]
2. Is Chain of Custody complete? Yes [x] No [ ] Not Present [ ]
3. How was the sample delivered? FedEx

Log In

- 4. Coolers are present? (see 19. for cooler specific information) Yes [x] No [ ] NA [ ]
5. Was an attempt made to cool the samples? Yes [x] No [ ] NA [ ]
6. Were all samples received at a temperature of >0° C to 6.0° C Yes [x] No [ ] NA [ ]
7. Sample(s) in proper container(s)? Yes [x] No [ ]
8. Sufficient sample volume for indicated test(s)? Yes [x] No [ ]
9. Are samples (except VOA and ONG) properly preserved? Yes [x] No [ ]
10. Was preservative added to bottles? Yes [x] No [ ]
11. VOA vials have zero headspace? Yes [ ] No [x]
12. Were any sample containers received broken? Yes [ ] No [x]
13. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes [x] No [ ]
14. Are matrices correctly identified on Chain of Custody? Yes [x] No [ ]
15. Is it clear what analyses were requested? Yes [x] No [ ]
16. Were all holding times able to be met? (If no, notify customer for authorization.) Yes [x] No [ ]

Handwritten notes: -001B - ADDED 0.5 ML H2SO4 FOR ACCEPTABLE PH - 12/07/12
-001C, 002C - ADDED 1 ML HNO3 FOR ACCEPTABLE PH - 12/07/12
-001A - ALL VOAS HAVE SOME HEAD SPACE

# of preserved bottles checked for pH: 12
Adjusted: 12
Checked by: [Signature]

Special Handling (if applicable)

- 17. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [x]

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_
By Whom: \_\_\_\_\_ Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person
Regarding: \_\_\_\_\_
Client Instructions: \_\_\_\_\_

18. Additional remarks:

19. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 1.0, Good, Yes, , ,

**Chain-of-Custody Record**

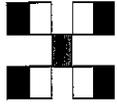
Client: Safety & Environmental Solutions  
 Mailing Address: 203 E. Clinton  
Albuquerque, NM 88240  
 Phone #: 575-397-0570

Turn-Around Time:  Standard  Rush  
 Project Name: Yates  
 Project #: YAT-04-003  
 Project Manager: Boyer Dave  
 Sampler: Spencer  
 On Ice:  Yes  No  
 Sample Temperature: 10

QA/QC Package:  Standard  Level 4 (Full Validation)  
 Accreditation:  NELAP  Other  
 EDD (Type) \_\_\_\_\_

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
12/06/12	1130	Water	MMW-3	7	HCL	1212373-001
12/06/12	1210	Water	MMW-1	7	AMDS	-002
12/06/12	1240	Water	MMW-4	7	H2SO4	-003
12/06/12	1305	Water	MMW-2	7		-004
			Trip Blank			-005

Received by: Spencer Date: 12/07/12 Time: 10:45  
 Received by: Spencer Date: \_\_\_\_\_ Time: \_\_\_\_\_



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

**Analysis Request**

Analysis Request	Analysis Request
BTEX + MTBE + TPH (Gas only)	BTEX, NAPHTHALENE
TPH 8015B (GRO / DRO / MRO)	
TPH (Method 418.1)	
EDB (Method 504.1)	
PAH's (8310 or 8270 SIMS)	
RCRA 8 Metals	
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	
8081 Pesticides / 8082 PCBs	
8260B (VOA)	
8270 (Semi-VOA)	
Air Bubbles (Y or N)	

Remarks:

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

March 29, 2013

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 390-7067  
FAX (575) 393-4388

RE: Inex Pit

OrderNo.: 1303555

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/14/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order 1303555

Date Reported: 3/29/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 3/12/2013 11:35:00 AM

**Lab ID:** 1303555-001

**Matrix:** AQUEOUS

**Received Date:** 3/14/2013 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Fluoride	ND	2.0		mg/L	20	3/15/2013 9:22:18 AM
Chloride	28000	1000		mg/L	2000	3/20/2013 11:16:29 PM
Bromide	10	2.0		mg/L	20	3/15/2013 9:22:18 AM
Nitrate+Nitrite as N	ND	20		mg/L	100	3/20/2013 11:41:18 PM
Phosphorus, Orthophosphate (As P')	ND	10	H	mg/L	20	3/15/2013 9:22:18 AM
Sulfate	2200	50		mg/L	100	3/18/2013 7:08:49 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JLF</b>
Barium	0.10	0.010		mg/L	5	3/15/2013 4:43:07 PM
Cadmium	ND	0.010		mg/L	5	3/15/2013 4:43:07 PM
Calcium	2000	200		mg/L	200	3/21/2013 1:33:22 PM
Chromium	ND	0.060		mg/L	10	3/21/2013 1:02:39 PM
Copper	ND	0.030		mg/L	5	3/15/2013 4:43:07 PM
Iron	3.3	0.10	*	mg/L	5	3/15/2013 4:43:07 PM
Lead	ND	0.025	*	mg/L	5	3/15/2013 4:43:07 PM
Magnesium	720	10		mg/L	10	3/21/2013 1:02:39 PM
Manganese	0.40	0.010	*	mg/L	5	3/15/2013 4:43:07 PM
Potassium	40	10		mg/L	10	3/21/2013 1:02:39 PM
Silver	ND	0.025		mg/L	5	3/15/2013 4:43:07 PM
Sodium	14000	200		mg/L	200	3/25/2013 4:03:16 PM
Zinc	ND	0.10		mg/L	10	3/21/2013 1:02:39 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBD</b>
Arsenic	ND	0.010		mg/L	10	3/18/2013 3:11:53 PM
Selenium	0.028	0.010		mg/L	10	3/18/2013 3:11:53 PM
Uranium	0.016	0.010		mg/L	10	3/18/2013 3:11:53 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>TMG</b>
Mercury	0.00033	0.00020		mg/L	1	3/22/2013 9:19:17 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	2.0	P	µg/L	2	3/19/2013 3:15:08 PM
Toluene	ND	2.0	P	µg/L	2	3/19/2013 3:15:08 PM
Ethylbenzene	ND	2.0	P	µg/L	2	3/19/2013 3:15:08 PM
Naphthalene	ND	4.0	P	µg/L	2	3/19/2013 3:15:08 PM
Xylenes, Total	ND	4.0	P	µg/L	2	3/19/2013 3:15:08 PM
Surr: 1,2-Dichloroethane-d4	108	70-130	P	%REC	2	3/19/2013 3:15:08 PM
Surr: 4-Bromofluorobenzene	86.2	69.5-130	P	%REC	2	3/19/2013 3:15:08 PM
Surr: Dibromofluoromethane	89.2	70-130	P	%REC	2	3/19/2013 3:15:08 PM
Surr: Toluene-d8	94.4	70-130	P	%REC	2	3/19/2013 3:15:08 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JML</b>
Conductivity	90000	0.50		µmhos/cm	50	3/15/2013 7:18:50 PM
<b>SM4500-H+B: PH</b>						Analyst: <b>JML</b>

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1303555

Date Reported: 3/29/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 3/12/2013 11:35:00 AM

**Lab ID:** 1303555-001

**Matrix:** AQUEOUS

**Received Date:** 3/14/2013 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM4500-H+B: PH</b> <span style="float: right;">Analyst: <b>JML</b></span>						
pH	6.76	1.68	H	pH units	1	3/14/2013 6:22:34 PM
<b>SM2320B: ALKALINITY</b> <span style="float: right;">Analyst: <b>JML</b></span>						
Bicarbonate (As CaCO3)	250	20		mg/L CaCO3	1	3/14/2013 6:22:34 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	3/14/2013 6:22:34 PM
Total Alkalinity (as CaCO3)	250	20		mg/L CaCO3	1	3/14/2013 6:22:34 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b> <span style="float: right;">Analyst: <b>KS</b></span>						
Total Dissolved Solids	47700	1000	*	mg/L	1	3/18/2013 8:00:00 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1303555

Date Reported: 3/29/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 3/12/2013 12:00:00 PM

**Lab ID:** 1303555-002

**Matrix:** AQUEOUS

**Received Date:** 3/14/2013 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JRR</b>
Fluoride	ND	2.0		mg/L	20	3/15/2013 9:47:08 AM
Chloride	7000	250		mg/L	500	3/18/2013 7:21:14 PM
Bromide	2.7	2.0		mg/L	20	3/15/2013 9:47:08 AM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	3/18/2013 9:12:54 PM
Phosphorus, Orthophosphate (As P')	ND	10	H	mg/L	20	3/15/2013 9:47:08 AM
Sulfate	1100	25		mg/L	50	3/18/2013 7:33:39 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JLF</b>
Barium	0.032	0.0020		mg/L	1	3/15/2013 4:45:41 PM
Cadmium	ND	0.0020		mg/L	1	3/15/2013 4:45:41 PM
Calcium	1200	500		mg/L	500	3/21/2013 1:40:28 PM
Chromium	ND	0.0060		mg/L	1	3/21/2013 1:35:35 PM
Copper	ND	0.0060		mg/L	1	3/15/2013 4:45:41 PM
Iron	0.026	0.020		mg/L	1	3/15/2013 4:45:41 PM
Lead	0.0052	0.0050		mg/L	1	3/15/2013 4:45:41 PM
Magnesium	420	10		mg/L	10	3/21/2013 1:38:12 PM
Manganese	0.0043	0.0020		mg/L	1	3/15/2013 4:45:41 PM
Potassium	7.9	1.0		mg/L	1	3/21/2013 1:35:35 PM
Silver	ND	0.0050		mg/L	1	3/15/2013 4:45:41 PM
Sodium	2500	500		mg/L	500	3/25/2013 4:04:41 PM
Zinc	ND	0.010		mg/L	1	3/21/2013 1:35:35 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBD</b>
Arsenic	ND	0.0050		mg/L	5	3/18/2013 3:15:39 PM
Selenium	0.0086	0.0050		mg/L	5	3/18/2013 3:15:39 PM
Uranium	0.012	0.0050		mg/L	5	3/18/2013 3:15:39 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>TMG</b>
Mercury	ND	0.00020		mg/L	1	3/22/2013 9:21:01 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	3/19/2013 4:51:09 PM
Toluene	ND	1.0		µg/L	1	3/19/2013 4:51:09 PM
Ethylbenzene	ND	1.0		µg/L	1	3/19/2013 4:51:09 PM
Naphthalene	ND	2.0		µg/L	1	3/19/2013 4:51:09 PM
Xylenes, Total	ND	2.0		µg/L	1	3/19/2013 4:51:09 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%REC	1	3/19/2013 4:51:09 PM
Surr: 4-Bromofluorobenzene	93.4	69.5-130		%REC	1	3/19/2013 4:51:09 PM
Surr: Dibromofluoromethane	85.5	70-130		%REC	1	3/19/2013 4:51:09 PM
Surr: Toluene-d8	91.1	70-130		%REC	1	3/19/2013 4:51:09 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JML</b>
Conductivity	25000	0.50		µmhos/cm	50	3/15/2013 7:23:18 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JML</b>

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1303555

Date Reported: 3/29/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 3/12/2013 12:00:00 PM

**Lab ID:** 1303555-002

**Matrix:** AQUEOUS

**Received Date:** 3/14/2013 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JML</b>
Bicarbonate (As CaCO3)	190	20		mg/L CaCO3	1	3/14/2013 6:36:32 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	3/14/2013 6:36:32 PM
Total Alkalinity (as CaCO3)	190	20		mg/L CaCO3	1	3/14/2013 6:36:32 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	12700	200	*	mg/L	1	3/18/2013 8:00:00 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

Analytical Report

Lab Order 1303555

Date Reported: 3/29/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-4

Project: Inex Pit

Collection Date: 3/12/2013 12:30:00 PM

Lab ID: 1303555-003

Matrix: AQUEOUS

Received Date: 3/14/2013 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Fluoride	ND	2.0		mg/L	20	3/15/2013 10:11:57 AM
Chloride	7200	500		mg/L	1000	3/18/2013 7:46:03 PM
Bromide	3.2	2.0		mg/L	20	3/15/2013 10:11:57 AM
Nitrate+Nitrite as N	ND	4.0		mg/L	20	3/18/2013 9:25:19 PM
Phosphorus, Orthophosphate (As P')	ND	10	H	mg/L	20	3/15/2013 10:11:57 AM
Sulfate	990	25		mg/L	50	3/18/2013 7:58:27 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: JLF
Barium	0.040	0.0020		mg/L	1	3/15/2013 4:51:11 PM
Cadmium	ND	0.0020		mg/L	1	3/15/2013 4:51:11 PM
Calcium	1900	500		mg/L	500	3/21/2013 1:47:46 PM
Chromium	ND	0.0060		mg/L	1	3/21/2013 1:42:41 PM
Copper	ND	0.0060		mg/L	1	3/15/2013 4:51:11 PM
Iron	ND	0.020		mg/L	1	3/15/2013 4:51:11 PM
Lead	ND	0.0050		mg/L	1	3/15/2013 4:51:11 PM
Magnesium	640	10		mg/L	10	3/21/2013 1:45:21 PM
Manganese	0.017	0.0020		mg/L	1	3/15/2013 4:51:11 PM
Potassium	10	1.0		mg/L	1	3/21/2013 1:42:41 PM
Silver	ND	0.0050		mg/L	1	3/21/2013 1:42:41 PM
Sodium	2800	500		mg/L	500	3/25/2013 4:05:56 PM
Zinc	ND	0.010		mg/L	1	3/21/2013 1:42:41 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: DBD
Arsenic	ND	0.010		mg/L	10	3/18/2013 3:19:26 PM
Selenium	ND	0.010		mg/L	10	3/18/2013 3:19:26 PM
Uranium	0.015	0.010		mg/L	10	3/18/2013 3:19:26 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 9:22:50 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/19/2013 5:23:30 PM
Toluene	ND	1.0		µg/L	1	3/19/2013 5:23:30 PM
Ethylbenzene	ND	1.0		µg/L	1	3/19/2013 5:23:30 PM
Naphthalene	ND	2.0		µg/L	1	3/19/2013 5:23:30 PM
Xylenes, Total	ND	2.0		µg/L	1	3/19/2013 5:23:30 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%REC	1	3/19/2013 5:23:30 PM
Surr: 4-Bromofluorobenzene	82.5	69.5-130		%REC	1	3/19/2013 5:23:30 PM
Surr: Dibromofluoromethane	87.8	70-130		%REC	1	3/19/2013 5:23:30 PM
Surr: Toluene-d8	87.8	70-130		%REC	1	3/19/2013 5:23:30 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: JML
Conductivity	28000	0.50		µmhos/cm	50	3/15/2013 7:27:48 PM
<b>SM2320B: ALKALINITY</b>						Analyst: JML

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 P Sample pH greater than 2  
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1303555

Date Reported: 3/29/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 3/12/2013 12:30:00 PM

**Lab ID:** 1303555-003

**Matrix:** AQUEOUS

**Received Date:** 3/14/2013 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JML</b>
Bicarbonate (As CaCO3)	190	20		mg/L CaCO3	1	3/14/2013 6:48:43 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	3/14/2013 6:48:43 PM
Total Alkalinity (as CaCO3)	190	20		mg/L CaCO3	1	3/14/2013 6:48:43 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	15900	200	*	mg/L	1	3/18/2013 8:00:00 AM

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	P Sample pH greater than 2	R RPD outside accepted recovery limits
	RL Reporting Detection Limit	S Spike Recovery outside accepted recovery limits

Analytical Report

Lab Order 1303555

Date Reported: 3/29/2013

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-2

Project: Inex Pit

Collection Date: 3/12/2013 12:50:00 PM

Lab ID: 1303555-004

Matrix: AQUEOUS

Received Date: 3/14/2013 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Fluoride	0.56	0.10		mg/L	1	3/15/2013 10:24:21 AM
Chloride	1100	50		mg/L	100	3/18/2013 8:10:52 PM
Bromide	0.63	0.10		mg/L	1	3/15/2013 10:24:21 AM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	3/15/2013 7:55:22 PM
Phosphorus, Orthophosphate (As P')	ND	0.50	H	mg/L	1	3/15/2013 10:24:21 AM
Sulfate	940	50		mg/L	100	3/18/2013 8:10:52 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: JLF
Barium	0.017	0.0020		mg/L	1	3/15/2013 4:56:47 PM
Cadmium	ND	0.0020		mg/L	1	3/15/2013 4:56:47 PM
Calcium	510	10		mg/L	10	3/21/2013 1:54:37 PM
Chromium	ND	0.0060		mg/L	1	3/21/2013 1:49:58 PM
Copper	ND	0.0060		mg/L	1	3/15/2013 4:56:47 PM
Iron	0.030	0.020		mg/L	1	3/15/2013 4:56:47 PM
Lead	ND	0.0050		mg/L	1	3/15/2013 4:56:47 PM
Magnesium	190	5.0		mg/L	5	3/21/2013 1:52:22 PM
Manganese	0.0027	0.0020		mg/L	1	3/15/2013 4:56:47 PM
Potassium	2.6	1.0		mg/L	1	3/21/2013 1:49:58 PM
Silver	ND	0.0050		mg/L	1	3/15/2013 4:56:47 PM
Sodium	210	5.0		mg/L	5	3/25/2013 4:07:13 PM
Zinc	ND	0.010		mg/L	1	3/21/2013 1:49:58 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: DBD
Arsenic	ND	0.0010		mg/L	1	3/18/2013 11:37:13 AM
Selenium	0.0073	0.0010		mg/L	1	3/18/2013 11:37:13 AM
Uranium	0.0081	0.0010		mg/L	1	3/18/2013 11:37:13 AM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: TMG
Mercury	ND	0.00020		mg/L	1	3/22/2013 9:24:36 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: DJF
Benzene	ND	1.0		µg/L	1	3/19/2013 5:55:48 PM
Toluene	ND	1.0		µg/L	1	3/19/2013 5:55:48 PM
Ethylbenzene	ND	1.0		µg/L	1	3/19/2013 5:55:48 PM
Naphthalene	ND	2.0		µg/L	1	3/19/2013 5:55:48 PM
Xylenes, Total	ND	2.0		µg/L	1	3/19/2013 5:55:48 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%REC	1	3/19/2013 5:55:48 PM
Surr: 4-Bromofluorobenzene	83.0	69.5-130		%REC	1	3/19/2013 5:55:48 PM
Surr: Dibromofluoromethane	88.8	70-130		%REC	1	3/19/2013 5:55:48 PM
Surr: Toluene-d8	92.5	70-130		%REC	1	3/19/2013 5:55:48 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: JML
Conductivity	4600	0.010		µmhos/cm	1	3/14/2013 7:01:07 PM
<b>SM2320B: ALKALINITY</b>						Analyst: JML

**Qualifiers:**  
 \* Value exceeds Maximum Contaminant Level.  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 P Sample pH greater than 2  
 RL Reporting Detection Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 R RPD outside accepted recovery limits  
 S Spike Recovery outside accepted recovery limits

**Analytical Report**

Lab Order 1303555

Date Reported: 3/29/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 3/12/2013 12:50:00 PM

**Lab ID:** 1303555-004

**Matrix:** AQUEOUS

**Received Date:** 3/14/2013 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JML</b>
Bicarbonate (As CaCO3)	150	20		mg/L CaCO3	1	3/14/2013 7:01:07 PM
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	3/14/2013 7:01:07 PM
Total Alkalinity (as CaCO3)	150	20		mg/L CaCO3	1	3/14/2013 7:01:07 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	3430	40.0	*	mg/L	1	3/18/2013 8:00:00 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3		MW-1		MW-4		MW-2	
	1303555-01	1303555-02	1303555-03	1303555-04	mg/L	meq/L	mg/L	meq/L
<b>CATIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	14000	608.96	2500	108.74	2800	121.79	210	9.13
Potassium	40	1.02	7.9	0.20	10	0.26	2.6	0.07
Calcium	2000	99.80	1200	59.88	1900	94.81	510	25.45
Magnesium	720	59.26	420	34.57	640	52.67	190	15.64
<b>Total Cations</b>	769.04	203.39	269.53	50.29				
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2200	45.80	1100	22.90	990	20.61	940	19.57
Chloride	28000	789.84	7000	197.46	7200	203.10	1100	31.03
Bicarbonate (CaCO3)	250	5.00	190	3.80	190	3.80	150	3.00
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)							0.56	0.03
Fluoride							0.63	0.01
Bromide	10	0.13	2.70	0.03	3.2	0.04		
<b>Total Anions</b>	840.77	224.19	227.55	53.64				
Elect. Cond. (µMhos/cm)	90000		28000	4600				
<b>CATION/ANION RATIO</b>	0.91	0.91	1.18	0.94				
% Difference	4	5	8	3				
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	47700		12700		15900		3430	
TDS (calculated)	47120		12345		13657		3044	
Ratio meas TDS:calc TDS	1.0	1.0	1.2	1.1				
Ratio Meas. TDS:EC	0.53	0.51	0.57	0.75				
Ratio Calc. TDS:EC	0.52	0.49	0.49	0.66				
Ratio of anion sum:EC	0.9	0.9	0.8	1.2				
Ratio of cation sum:EC	0.9	0.8	1.0	1.1				

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9231</b>		RunNo: <b>9231</b>							
Prep Date: <b>1/24/2013</b>	Analysis Date: <b>3/15/2013</b>		SeqNo: <b>262590</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Copper	ND	0.0060								
Iron	ND	0.020								
Lead	ND	0.0050								
Manganese	ND	0.0020								
Silver	ND	0.0050								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9231</b>		RunNo: <b>9231</b>							
Prep Date:	Analysis Date: <b>3/15/2013</b>		SeqNo: <b>262591</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	98.7	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.8	85	115			
Copper	0.49	0.0060	0.5000	0	98.0	85	115			
Iron	0.49	0.020	0.5000	0	97.7	85	115			
Lead	0.51	0.0050	0.5000	0	102	85	115			
Manganese	0.50	0.0020	0.5000	0	100	85	115			
Silver	0.10	0.0050	0.1000	0	100	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9340</b>		RunNo: <b>9340</b>							
Prep Date: <b>2/22/2013</b>	Analysis Date: <b>3/21/2013</b>		SeqNo: <b>266289</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Chromium	ND	0.0060								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9340</b>		RunNo: <b>9340</b>							
Prep Date:	Analysis Date: <b>3/21/2013</b>		SeqNo: <b>266290</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	49	1.0	50.00	0	97.8	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Magnesium	48	1.0	50.00	0	95.4	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9340</b>		RunNo: <b>9340</b>							
Prep Date:	Analysis Date: <b>3/21/2013</b>		SeqNo: <b>266290</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Potassium	47	1.0	50.00	0	93.8	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9400</b>		RunNo: <b>9400</b>							
Prep Date: <b>2/22/2013</b>	Analysis Date: <b>3/25/2013</b>		SeqNo: <b>268365</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9400</b>		RunNo: <b>9400</b>							
Prep Date:	Analysis Date: <b>3/25/2013</b>		SeqNo: <b>268366</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	50	1.0	50.00	0	99.7	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA 200.8: Dissolved Metals</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R9252</b>	RunNo:	<b>9252</b>					
Prep Date:		Analysis Date:	<b>3/18/2013</b>	SeqNo:	<b>263477</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID	<b>LCS</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA 200.8: Dissolved Metals</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R9252</b>	RunNo:	<b>9252</b>					
Prep Date:		Analysis Date:	<b>3/18/2013</b>	SeqNo:	<b>263478</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.2	85	115			
Selenium	0.024	0.0010	0.02500	0	95.4	85	115			
Uranium	0.025	0.0010	0.02500	0	101	85	115			

Sample ID	<b>MB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA 200.8: Dissolved Metals</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R9252</b>	RunNo:	<b>9252</b>					
Prep Date:		Analysis Date:	<b>3/18/2013</b>	SeqNo:	<b>263479</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID	<b>MB</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA 200.8: Dissolved Metals</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R9252</b>	RunNo:	<b>9252</b>					
Prep Date:		Analysis Date:	<b>3/18/2013</b>	SeqNo:	<b>263480</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>MB-6598</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>6598</b>	RunNo:	<b>9354</b>					
Prep Date:	<b>3/21/2013</b>	Analysis Date:	<b>3/22/2013</b>	SeqNo:	<b>266705</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-6598</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>6598</b>	RunNo:	<b>9354</b>					
Prep Date:	<b>3/21/2013</b>	Analysis Date:	<b>3/22/2013</b>	SeqNo:	<b>266706</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0047	0.00020	0.005000	0	95.0	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9240</b>		RunNo: <b>9240</b>							
Prep Date:	Analysis Date: <b>3/15/2013</b>		SeqNo: <b>263023</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9240</b>		RunNo: <b>9240</b>							
Prep Date:	Analysis Date: <b>3/15/2013</b>		SeqNo: <b>263024</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.49	0.10	0.5000	0	98.3	90	110			
Bromide	2.4	0.10	2.500	0	97.2	90	110			
Phosphorus, Orthophosphate (As P	4.9	0.50	5.000	0	97.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.9	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9261</b>		RunNo: <b>9261</b>							
Prep Date:	Analysis Date: <b>3/18/2013</b>		SeqNo: <b>263964</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9261</b>		RunNo: <b>9261</b>							
Prep Date:	Analysis Date: <b>3/18/2013</b>		SeqNo: <b>263965</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.5	90	110			
Sulfate	9.9	0.50	10.00	0	99.0	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9317</b>		RunNo: <b>9317</b>							
Prep Date:	Analysis Date: <b>3/20/2013</b>		SeqNo: <b>265684</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9317</b>		RunNo: <b>9317</b>							
Prep Date:	Analysis Date: <b>3/20/2013</b>		SeqNo: <b>265685</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.2	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9317</b>		RunNo: <b>9317</b>							
Prep Date:	Analysis Date: <b>3/21/2013</b>		SeqNo: <b>265751</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9317</b>		RunNo: <b>9317</b>							
Prep Date:	Analysis Date: <b>3/21/2013</b>		SeqNo: <b>265768</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	93.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	96.2	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>5ml rb</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260: Volatiles Short List</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R9277</b>	RunNo:	<b>9277</b>					
Prep Date:		Analysis Date:	<b>3/19/2013</b>	SeqNo:	<b>264439</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	11		10.00		110	70	130			
Surr: 4-Bromofluorobenzene	8.6		10.00		86.3	69.5	130			
Surr: Dibromofluoromethane	9.2		10.00		92.2	70	130			
Surr: Toluene-d8	9.5		10.00		95.4	70	130			

Sample ID	<b>100ng lcs</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260: Volatiles Short List</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R9277</b>	RunNo:	<b>9277</b>					
Prep Date:		Analysis Date:	<b>3/19/2013</b>	SeqNo:	<b>264440</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	105	70	130			
Toluene	20	1.0	20.00	0	99.3	80	120			
Surr: 1,2-Dichloroethane-d4	11		10.00		106	70	130			
Surr: 4-Bromofluorobenzene	8.9		10.00		88.6	69.5	130			
Surr: Dibromofluoromethane	9.3		10.00		93.2	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions  
**Project:** Inex Pit

Sample ID <b>mb-1</b>	SampType: <b>mblk</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9204</b>		RunNo: <b>9204</b>							
Prep Date:	Analysis Date: <b>3/14/2013</b>		SeqNo: <b>261658</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID <b>ics-1</b>	SampType: <b>ics</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9204</b>		RunNo: <b>9204</b>							
Prep Date:	Analysis Date: <b>3/14/2013</b>		SeqNo: <b>261659</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79	20	80.00	0	98.8	90	110			

Sample ID <b>mb-2</b>	SampType: <b>mblk</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9204</b>		RunNo: <b>9204</b>							
Prep Date:	Analysis Date: <b>3/14/2013</b>		SeqNo: <b>261682</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID <b>ics-2</b>	SampType: <b>ics</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9204</b>		RunNo: <b>9204</b>							
Prep Date:	Analysis Date: <b>3/14/2013</b>		SeqNo: <b>261683</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79	20	80.00	0	98.6	90	110			

Sample ID <b>mb-3</b>	SampType: <b>mblk</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R9204</b>		RunNo: <b>9204</b>							
Prep Date:	Analysis Date: <b>3/14/2013</b>		SeqNo: <b>261702</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID <b>ics-3</b>	SampType: <b>ics</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R9204</b>		RunNo: <b>9204</b>							
Prep Date:	Analysis Date: <b>3/14/2013</b>		SeqNo: <b>261703</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79	20	80.00	0	99.0	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1303555

29-Mar-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB-6499</b>	SampType: <b>MBLK</b>		TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>							
Client ID: <b>PBW</b>	Batch ID: <b>6499</b>		RunNo: <b>9230</b>							
Prep Date: <b>3/15/2013</b>	Analysis Date: <b>3/18/2013</b>		SeqNo: <b>262561</b>	Units: <b>mg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID <b>LCS-6499</b>	SampType: <b>LCS</b>		TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>6499</b>		RunNo: <b>9230</b>							
Prep Date: <b>3/15/2013</b>	Analysis Date: <b>3/18/2013</b>		SeqNo: <b>262562</b>	Units: <b>mg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com.

### Sample Log-In Check List

Client Name: Safety Env Solutions      Work Order Number: 1303555

Received by/date: LM 03/14/13

Logged By: Anne Thorne      3/14/2013 9:30:00 AM      *Am. Thorne*

Completed By: Anne Thorne      3/14/2013      *Am. Thorne*

Reviewed By: mg 03/14/13

#### Chain of Custody

- 1. Were seals intact?      Yes  No  Not Present
- 2. Is Chain of Custody complete?      Yes  No  Not Present
- 3. How was the sample delivered?      FedEx

#### Log In

- 4. Coolers are present? (see 19. for cooler specific information)      Yes  No  NA
- 5. Was an attempt made to cool the samples?      Yes  No  NA
- 6. Were all samples received at a temperature of >0° C to 6.0°C      Yes  No  NA
- 7. Sample(s) in proper container(s)?      Yes  No
- 8. Sufficient sample volume for indicated test(s)?      Yes  No
- 9. Are samples (except VOA and ONG) properly preserved?      Yes  No
- 10. Was preservative added to bottles?      Yes  No  NA
- 11. VOA vials have zero headspace?      Yes  No  No VOA Vials
- 12. Were any sample containers received broken?      Yes  No
- 13. Does paperwork match bottle labels? (Note discrepancies on chain of custody)      Yes  No
- 14. Are matrices correctly identified on Chain of Custody?      Yes  No
- 15. Is it clear what analyses were requested?      Yes  No
- 16. Were all holding times able to be met? (If no, notify customer for authorization.)      Yes  No

*-OOID - ADDED 4ML HNO3 FOR ACCEPTABLE pH*

*001B - ZOF2 - ADDED 0.4 mL H2SO4 FOR ACCEPTABLE pH*

# of preserved bottles checked for pH: 12

Adjusted? YES @ 1440 *03/14/13*

Checked by: *[Signature]*

#### Special Handling (if applicable)

- 17. Was client notified of all discrepancies with this order?      Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

18. Additional remarks: *-OOID AFTER PRESERVATION, HELD IN LOGIN FOR 24 HOURS* *03/14/13*

#### 19. Cooler Information

Cooler No.	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.2	Good	Yes			





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

July 19, 2013

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 390-7067  
FAX (575) 393-4388

RE: Inex Pit

OrderNo.: 1306C11

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 6/28/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order 1306C11

Date Reported: 7/19/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 6/27/2013 9:30:00 AM

**Lab ID:** 1306C11-001

**Matrix:** AQUEOUS

**Received Date:** 6/28/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JRR</b>
Fluoride	ND	1.0		mg/L	10	7/15/2013 5:00:22 PM	R11962
Chloride	23000	1000		mg/L	2E	7/2/2013 6:00:07 PM	R11726
Bromide	11	2.0		mg/L	20	6/28/2013 5:48:17 PM	R11671
Nitrate+Nitrite as N	ND	20		mg/L	100	7/9/2013 4:30:21 AM	R11809
Phosphorus, Orthophosphate (As P <sub>3</sub> )	ND	10		mg/L	20	6/28/2013 5:48:17 PM	R11671
Sulfate	2000	50		mg/L	100	7/2/2013 12:11:16 AM	R11694
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>JLF</b>
Barium	0.061	0.010		mg/L	5	7/9/2013 4:59:27 PM	R11805
Cadmium	ND	0.010		mg/L	5	7/9/2013 4:59:27 PM	R11805
Calcium	2300	50		mg/L	50	7/10/2013 5:05:25 PM	R11837
Chromium	ND	0.030		mg/L	5	7/9/2013 4:59:27 PM	R11805
Copper	ND	0.030		mg/L	5	7/9/2013 4:59:27 PM	R11805
Iron	0.13	0.10		mg/L	5	7/9/2013 4:59:27 PM	R11805
Lead	ND	0.25		mg/L	50	7/10/2013 5:05:25 PM	R11837
Magnesium	840	50		mg/L	50	7/10/2013 5:05:25 PM	R11837
Manganese	0.31	0.010	*	mg/L	5	7/9/2013 4:59:27 PM	R11805
Potassium	35	5.0		mg/L	5	7/9/2013 4:59:27 PM	R11805
Silver	ND	0.25	*	mg/L	50	7/10/2013 5:05:25 PM	R11837
Sodium	12000	500		mg/L	500	7/15/2013 1:56:05 PM	R11938
Zinc	0.10	0.050		mg/L	5	7/9/2013 4:59:27 PM	R11805
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>DBD</b>
Arsenic	0.035	0.020	*	mg/L	20	7/10/2013 2:20:30 PM	R11836
Selenium	0.21	0.020	*	mg/L	20	7/10/2013 2:20:30 PM	R11836
Uranium	ND	0.020		mg/L	20	7/10/2013 2:20:30 PM	R11836
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: <b>IDC</b>
Mercury	0.00045	0.00020		mg/L	1	7/2/2013 10:43:13 AM	8190
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>DAM</b>
Benzene	ND	1.0	P	µg/L	1	7/2/2013 10:38:22 PM	R11708
Toluene	ND	1.0	P	µg/L	1	7/2/2013 10:38:22 PM	R11708
Ethylbenzene	ND	1.0	P	µg/L	1	7/2/2013 10:38:22 PM	R11708
Naphthalene	ND	2.0	P	µg/L	1	7/2/2013 10:38:22 PM	R11708
Xylenes, Total	ND	2.0	P	µg/L	1	7/2/2013 10:38:22 PM	R11708
Surr: 1,2-Dichloroethane-d4	89.9	70-130	P	%REC	1	7/2/2013 10:38:22 PM	R11708
Surr: 4-Bromofluorobenzene	101	70-130	P	%REC	1	7/2/2013 10:38:22 PM	R11708
Surr: Dibromofluoromethane	90.5	70-130	P	%REC	1	7/2/2013 10:38:22 PM	R11708
Surr: Toluene-d8	96.0	70-130	P	%REC	1	7/2/2013 10:38:22 PM	R11708
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JML</b>
Conductivity	91000	0.50		µmhos/cm	50	7/1/2013 3:06:10 PM	R11695

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

**Analytical Report**

Lab Order 1306C11

Date Reported: 7/19/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 6/27/2013 9:30:00 AM

**Lab ID:** 1306C11-001

**Matrix:** AQUEOUS

**Received Date:** 6/28/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>SM4500-H+B: PH</b>							Analyst: <b>JML</b>
pH	7.10	1.68	H	pH units	1	6/28/2013 6:09:52 PM	R11669
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JML</b>
Bicarbonate (As CaCO3)	240	20		mg/L CaCO3	1	6/28/2013 6:09:52 PM	R11669
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/28/2013 6:09:52 PM	R11669
Total Alkalinity (as CaCO3)	240	20		mg/L CaCO3	1	6/28/2013 6:09:52 PM	R11669
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	49400	1000	*	mg/L	1	7/2/2013 5:11:00 PM	8185

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Analytical Report

Lab Order 1306C11

Date Reported: 7/19/2013

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-1

Project: Inex Pit

Collection Date: 6/27/2013 10:00:00 AM

Lab ID: 1306C11-002

Matrix: AQUEOUS

Received Date: 6/28/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Fluoride	ND	1.0		mg/L	10	7/15/2013 5:12:46 PM	R11962
Chloride	5100	250		mg/L	500	7/2/2013 12:48:29 AM	R11694
Bromide	2.5	2.0		mg/L	20	6/28/2013 6:13:06 PM	R11671
Nitrate+Nitrite as N	ND	4.0		mg/L	20	7/2/2013 3:06:19 PM	R11726
Phosphorus, Orthophosphate (As P <sub>3</sub> )	ND	0.50		mg/L	1	6/28/2013 6:00:42 PM	R11671
Sulfate	980	25		mg/L	50	7/2/2013 12:36:05 AM	R11694
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: JLF
Barium	0.031	0.0020		mg/L	1	7/9/2013 5:02:26 PM	R11805
Cadmium	ND	0.0020		mg/L	1	7/9/2013 5:02:26 PM	R11805
Calcium	1200	50		mg/L	50	7/10/2013 5:26:27 PM	R11837
Chromium	ND	0.0060		mg/L	1	7/9/2013 5:02:26 PM	R11805
Copper	ND	0.0060		mg/L	1	7/9/2013 5:02:26 PM	R11805
Iron	ND	0.020		mg/L	1	7/9/2013 5:02:26 PM	R11805
Lead	ND	0.0050		mg/L	1	7/10/2013 5:10:19 PM	R11837
Magnesium	370	5.0		mg/L	5	7/9/2013 5:05:12 PM	R11805
Manganese	0.0034	0.0020		mg/L	1	7/9/2013 5:02:26 PM	R11805
Potassium	7.3	1.0		mg/L	1	7/9/2013 5:02:26 PM	R11805
Silver	ND	0.25		mg/L	50	7/10/2013 5:26:27 PM	R11837
Sodium	1900	50		mg/L	50	7/15/2013 1:58:38 PM	R11938
Zinc	0.014	0.010		mg/L	1	7/9/2013 5:02:26 PM	R11805
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: DBD
Arsenic	ND	0.010		mg/L	10	7/10/2013 2:07:31 PM	R11836
Selenium	0.050	0.010		mg/L	10	7/10/2013 2:07:31 PM	R11836
Uranium	0.012	0.010		mg/L	10	7/10/2013 2:07:31 PM	R11836
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	7/2/2013 10:45:01 AM	8190
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: DAM
Benzene	ND	1.0		µg/L	1	7/2/2013 11:07:32 PM	R11708
Toluene	ND	1.0		µg/L	1	7/2/2013 11:07:32 PM	R11708
Ethylbenzene	ND	1.0		µg/L	1	7/2/2013 11:07:32 PM	R11708
Naphthalene	ND	2.0		µg/L	1	7/2/2013 11:07:32 PM	R11708
Xylenes, Total	ND	2.0		µg/L	1	7/2/2013 11:07:32 PM	R11708
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%REC	1	7/2/2013 11:07:32 PM	R11708
Surr: 4-Bromofluorobenzene	98.1	70-130		%REC	1	7/2/2013 11:07:32 PM	R11708
Surr: Dibromofluoromethane	91.9	70-130		%REC	1	7/2/2013 11:07:32 PM	R11708
Surr: Toluene-d8	95.5	70-130		%REC	1	7/2/2013 11:07:32 PM	R11708
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: JML
Conductivity	19000	0.025		µmhos/cm	2.5	7/1/2013 3:10:44 PM	R11695

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:							
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank				
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded				
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit				
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.				
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit				

**Analytical Report**

Lab Order 1306C11

Date Reported: 7/19/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 6/27/2013 10:00:00 AM

**Lab ID:** 1306C11-002

**Matrix:** AQUEOUS

**Received Date:** 6/28/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>SM4500-H+B: PH</b>							Analyst: <b>JML</b>
pH	7.23	1.68	H	pH units	1	6/28/2013 6:24:45 PM	R11669
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JML</b>
Bicarbonate (As CaCO3)	190	20		mg/L CaCO3	1	6/28/2013 6:24:45 PM	R11669
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/28/2013 6:24:45 PM	R11669
Total Alkalinity (as CaCO3)	190	20		mg/L CaCO3	1	6/28/2013 6:24:45 PM	R11669
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	11600	200	*	mg/L	1	7/2/2013 5:11:00 PM	8185

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Analytical Report

Lab Order 1306C11

Date Reported: 7/19/2013

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-4

Project: Inex Pit

Collection Date: 6/27/2013 10:30:00 AM

Lab ID: 1306C11-003

Matrix: AQUEOUS

Received Date: 6/28/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Fluoride	ND	1.0		mg/L	10	7/15/2013 5:25:11 PM	R11962
Chloride	6600	500		mg/L	1E	7/2/2013 1:13:19 AM	R11694
Bromide	3.4	2.0		mg/L	20	6/28/2013 6:37:55 PM	R11671
Nitrate+Nitrite as N	ND	4.0		mg/L	20	7/2/2013 3:18:44 PM	R11726
Phosphorus, Orthophosphate (As P <sub>3</sub> )	ND	0.50		mg/L	1	6/28/2013 6:25:31 PM	R11671
Sulfate	940	25		mg/L	50	7/2/2013 1:00:54 AM	R11694
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: JLF
Barium	0.039	0.0020		mg/L	1	7/9/2013 5:07:50 PM	R11805
Cadmium	ND	0.0020		mg/L	1	7/9/2013 5:07:50 PM	R11805
Calcium	1700	50		mg/L	50	7/10/2013 5:31:46 PM	R11837
Chromium	ND	0.0060		mg/L	1	7/9/2013 5:07:50 PM	R11805
Copper	ND	0.0060		mg/L	1	7/9/2013 5:07:50 PM	R11805
Iron	ND	0.020		mg/L	1	7/9/2013 5:07:50 PM	R11805
Lead	ND	0.0050		mg/L	1	7/10/2013 5:28:55 PM	R11837
Magnesium	580	50		mg/L	50	7/10/2013 5:31:46 PM	R11837
Manganese	0.027	0.0020		mg/L	1	7/9/2013 5:07:50 PM	R11805
Potassium	8.0	1.0		mg/L	1	7/9/2013 5:07:50 PM	R11805
Silver	ND	0.25	*	mg/L	50	7/10/2013 5:31:46 PM	R11837
Sodium	2000	50		mg/L	50	7/15/2013 2:01:19 PM	R11938
Zinc	ND	0.010		mg/L	1	7/9/2013 5:07:50 PM	R11805
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: DBD
Arsenic	0.012	0.010	*	mg/L	10	7/10/2013 2:11:50 PM	R11836
Selenium	0.066	0.010	*	mg/L	10	7/10/2013 2:11:50 PM	R11836
Uranium	0.017	0.010		mg/L	10	7/10/2013 2:11:50 PM	R11836
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	7/2/2013 10:46:49 AM	8190
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: DAM
Benzene	ND	1.0		µg/L	1	7/2/2013 11:35:49 PM	R11708
Toluene	ND	1.0		µg/L	1	7/2/2013 11:35:49 PM	R11708
Ethylbenzene	ND	1.0		µg/L	1	7/2/2013 11:35:49 PM	R11708
Naphthalene	ND	2.0		µg/L	1	7/2/2013 11:35:49 PM	R11708
Xylenes, Total	ND	2.0		µg/L	1	7/2/2013 11:35:49 PM	R11708
Surr: 1,2-Dichloroethane-d4	92.6	70-130		%REC	1	7/2/2013 11:35:49 PM	R11708
Surr: 4-Bromofluorobenzene	99.4	70-130		%REC	1	7/2/2013 11:35:49 PM	R11708
Surr: Dibromofluoromethane	90.6	70-130		%REC	1	7/2/2013 11:35:49 PM	R11708
Surr: Toluene-d8	94.7	70-130		%REC	1	7/2/2013 11:35:49 PM	R11708
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: JML
Conductivity	25000	0.025		µmhos/cm	2.5	7/1/2013 3:15:16 PM	R11695

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

**Analytical Report**

Lab Order 1306C11

Date Reported: 7/19/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 6/27/2013 10:30:00 AM

**Lab ID:** 1306C11-003

**Matrix:** AQUEOUS

**Received Date:** 6/28/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>SM4500-H+B: PH</b>							Analyst: <b>JML</b>
pH	7.12	1.68	H	pH units	1	6/28/2013 6:37:02 PM	R11669
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JML</b>
Bicarbonate (As CaCO3)	170	20		mg/L CaCO3	1	6/28/2013 6:37:02 PM	R11669
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/28/2013 6:37:02 PM	R11669
Total Alkalinity (as CaCO3)	170	20		mg/L CaCO3	1	6/28/2013 6:37:02 PM	R11669
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	16500	400	*	mg/L	1	7/2/2013 5:11:00 PM	8185

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

## Analytical Report

Lab Order 1306C11

Date Reported: 7/19/2013

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety &amp; Environmental Solutions

Client Sample ID: MW-2

Project: Inex Pit

Collection Date: 6/27/2013 11:00:00 AM

Lab ID: 1306C11-004

Matrix: AQUEOUS

Received Date: 6/28/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: JRR
Fluoride	1.1	0.10		mg/L	1	7/15/2013 5:37:35 PM	R11962
Chloride	840	25		mg/L	50	7/2/2013 1:25:44 AM	R11694
Bromide	0.60	0.10		mg/L	1	6/28/2013 6:50:19 PM	R11671
Nitrate+Nitrite as N	ND	1.0		mg/L	5	7/2/2013 4:08:25 PM	R11726
Phosphorus, Orthophosphate (As P <sub>3</sub> )	ND	0.50		mg/L	1	6/28/2013 6:50:19 PM	R11671
Sulfate	990	10		mg/L	20	6/28/2013 7:02:44 PM	R11671
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: JLF
Barium	0.016	0.0020		mg/L	1	7/9/2013 5:13:24 PM	R11805
Cadmium	ND	0.0020		mg/L	1	7/9/2013 5:13:24 PM	R11805
Calcium	470	5.0		mg/L	5	7/9/2013 5:15:59 PM	R11805
Chromium	ND	0.0060		mg/L	1	7/9/2013 5:13:24 PM	R11805
Copper	ND	0.0060		mg/L	1	7/9/2013 5:13:24 PM	R11805
Iron	ND	0.020		mg/L	1	7/9/2013 5:13:24 PM	R11805
Lead	ND	0.0050		mg/L	1	7/10/2013 5:34:11 PM	R11837
Magnesium	160	5.0		mg/L	5	7/9/2013 5:15:59 PM	R11805
Manganese	ND	0.0020		mg/L	1	7/9/2013 5:13:24 PM	R11805
Potassium	2.6	1.0		mg/L	1	7/9/2013 5:13:24 PM	R11805
Silver	ND	0.025		mg/L	5	7/9/2013 5:15:59 PM	R11805
Sodium	170	5.0		mg/L	5	7/9/2013 5:15:59 PM	R11805
Zinc	0.015	0.010		mg/L	1	7/9/2013 5:13:24 PM	R11805
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: DBD
Arsenic	0.0023	0.0010		mg/L	1	7/5/2013 12:32:02 PM	R11758
Selenium	0.013	0.0010		mg/L	1	7/5/2013 12:32:02 PM	R11758
Uranium	0.0077	0.0010		mg/L	1	7/5/2013 12:32:02 PM	R11758
<b>EPA METHOD 245.1: MERCURY</b>							Analyst: IDC
Mercury	ND	0.00020		mg/L	1	7/2/2013 10:52:21 AM	8190
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: DAM
Benzene	ND	1.0		µg/L	1	7/3/2013 12:04:10 AM	R11708
Toluene	ND	1.0		µg/L	1	7/3/2013 12:04:10 AM	R11708
Ethylbenzene	ND	1.0		µg/L	1	7/3/2013 12:04:10 AM	R11708
Naphthalene	ND	2.0		µg/L	1	7/3/2013 12:04:10 AM	R11708
Xylenes, Total	ND	2.0		µg/L	1	7/3/2013 12:04:10 AM	R11708
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%REC	1	7/3/2013 12:04:10 AM	R11708
Surr: 4-Bromofluorobenzene	98.0	70-130		%REC	1	7/3/2013 12:04:10 AM	R11708
Surr: Dibromofluoromethane	92.8	70-130		%REC	1	7/3/2013 12:04:10 AM	R11708
Surr: Toluene-d8	94.6	70-130		%REC	1	7/3/2013 12:04:10 AM	R11708
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: JML
Conductivity	4200	0.010		µmhos/cm	1	6/28/2013 6:48:10 PM	R11669

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit

**Analytical Report**

Lab Order 1306C11

Date Reported: 7/19/2013

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 6/27/2013 11:00:00 AM

**Lab ID:** 1306C11-004

**Matrix:** AQUEOUS

**Received Date:** 6/28/2013 9:50:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>SM4500-H+B: PH</b>							Analyst: <b>JML</b>
pH	7.52	1.68	H	pH units	1	6/28/2013 6:48:10 PM	R11669
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JML</b>
Bicarbonate (As CaCO3)	160	20		mg/L CaCO3	1	6/28/2013 6:48:10 PM	R11669
Carbonate (As CaCO3)	ND	2.0		mg/L CaCO3	1	6/28/2013 6:48:10 PM	R11669
Total Alkalinity (as CaCO3)	160	20		mg/L CaCO3	1	6/28/2013 6:48:10 PM	R11669
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	2910	40.0	*	mg/L	1	7/2/2013 5:11:00 PM	8185

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit

**CATION/ANION BALANCE SHEET FOR WATER ANALYSES**

HEAL LAB NUMBER	MW-3		MW-1		MW-4		MW-2	
	1306C11-01	1306C11-02	1306C11-03	1306C11-04	mg/L	meq/L	mg/L	meq/L
<b>CATIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	12000	521.97	1900	82.64	2000	86.99	170	7.39
Potassium	35	0.90	7.3	0.19	8.0	0.20	2.6	0.07
Calcium	2300	114.77	1200	59.88	1700	84.83	470	23.45
Magnesium	840	69.14	370	30.45	580	47.74	160	13.17
<b>Total Cations</b>		706.77		173.16		219.77		44.08
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2000	41.64	980	20.40	940	19.57	990	20.61
Chloride	23000	648.80	5100	143.86	6600	186.18	840	23.70
Bicarbonate (CaCO3)	240	4.80	190	3.80	170	3.40	160	3.20
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)							1.1	0.06
Fluoride	11	0.14	2.5	0.03	3.4	0.04	0.60	0.01
Bromide								
<b>Total Anions</b>		695.38		168.10		209.19		47.57
<b>Elect. Cond. (µMhos/cm)</b>	91000		19000		25000		4200	
<b>CATION/ANION RATIO</b>		1.02		1.03		1.05		0.93
% Difference		1		1		2		4
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	49400		11600		16500		2910	
TDS (calculated)	40330		9674		11933		2730	
Ratio meas TDS:calc TDS		1.2		1.2		1.4		1.1
Ratio Meas. TDS:EC		0.54		0.61		0.66		0.69
Ratio Calc. TDS:EC		0.44		0.51		0.48		0.65
Ratio of anion sum:EC		0.8		0.9		0.8		1.1
Ratio of cation sum:EC		0.8		0.9		0.9		1.0

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11805</b>		RunNo: <b>11805</b>							
Prep Date:	Analysis Date: <b>7/9/2013</b>		SeqNo: <b>335551</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11805</b>		RunNo: <b>11805</b>							
Prep Date:	Analysis Date: <b>7/9/2013</b>		SeqNo: <b>335552</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.51	0.0020	0.5000	0	101	85	115			
Cadmium	0.51	0.0020	0.5000	0	103	85	115			
Calcium	48	1.0	50.00	0	96.8	85	115			
Chromium	0.53	0.0060	0.5000	0	106	85	115			
Copper	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.51	0.020	0.5000	0	103	85	115			
Magnesium	49	1.0	50.00	0	98.8	85	115			
Manganese	0.51	0.0020	0.5000	0	103	85	115			
Potassium	48	1.0	50.00	0	95.4	85	115			
Silver	0.10	0.0050	0.1000	0	105	85	115			
Sodium	48	1.0	50.00	0	96.7	85	115			
Zinc	0.51	0.010	0.5000	0	101	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11837</b>		RunNo: <b>11837</b>							
Prep Date:	Analysis Date: <b>7/10/2013</b>		SeqNo: <b>336474</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Lead	ND	0.0050								
Magnesium	ND	1.0								
Silver	ND	0.0050								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>LCS</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>				
Client ID:	<b>LCSW</b>		Batch ID:	<b>R11837</b>		RunNo:	<b>11837</b>				
Prep Date:			Analysis Date:	<b>7/10/2013</b>		SeqNo:	<b>336475</b>		Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium	48	1.0	50.00	0	96.6	85	115				
Lead	0.50	0.0050	0.5000	0	100	85	115				
Magnesium	49	1.0	50.00	0	97.4	85	115				
Silver	0.10	0.0050	0.1000	0	102	85	115				

Sample ID	<b>MB</b>		SampType:	<b>MBLK</b>		TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>				
Client ID:	<b>PBW</b>		Batch ID:	<b>R11938</b>		RunNo:	<b>11938</b>				
Prep Date:			Analysis Date:	<b>7/15/2013</b>		SeqNo:	<b>339369</b>		Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Sodium	ND	1.0									

Sample ID	<b>LCS</b>		SampType:	<b>LCS</b>		TestCode:	<b>EPA Method 200.7: Dissolved Metals</b>				
Client ID:	<b>LCSW</b>		Batch ID:	<b>R11938</b>		RunNo:	<b>11938</b>				
Prep Date:			Analysis Date:	<b>7/15/2013</b>		SeqNo:	<b>339370</b>		Units:	<b>mg/L</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Sodium	49	1.0	50.00	0	97.7	85	115				

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11758</b>		RunNo: <b>11758</b>							
Prep Date:	Analysis Date: <b>7/5/2013</b>		SeqNo: <b>334311</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11758</b>		RunNo: <b>11758</b>							
Prep Date:	Analysis Date: <b>7/5/2013</b>		SeqNo: <b>334312</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11758</b>		RunNo: <b>11758</b>							
Prep Date:	Analysis Date: <b>7/5/2013</b>		SeqNo: <b>334315</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	98.4	85	115			
Selenium	0.024	0.0010	0.02500	0	96.7	85	115			
Uranium	0.026	0.0010	0.02500	0	102	85	115			

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11758</b>		RunNo: <b>11758</b>							
Prep Date:	Analysis Date: <b>7/5/2013</b>		SeqNo: <b>334316</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	97.0	85	115			
Selenium	0.025	0.0010	0.02500	0	98.1	85	115			
Uranium	0.026	0.0010	0.02500	0	103	85	115			

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11836</b>		RunNo: <b>11836</b>							
Prep Date:	Analysis Date: <b>7/10/2013</b>		SeqNo: <b>336467</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	96.9	85	115			
Selenium	0.024	0.0010	0.02500	0	97.9	85	115			
Uranium	0.026	0.0010	0.02500	0	104	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11836</b>		RunNo: <b>11836</b>							
Prep Date:	Analysis Date: <b>7/10/2013</b>		SeqNo: <b>336468</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.0010								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>MB-8190</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>8190</b>	RunNo:	<b>11697</b>					
Prep Date:	<b>7/1/2013</b>	Analysis Date:	<b>7/2/2013</b>	SeqNo:	<b>332227</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-8190</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>8190</b>	RunNo:	<b>11697</b>					
Prep Date:	<b>7/1/2013</b>	Analysis Date:	<b>7/2/2013</b>	SeqNo:	<b>332228</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	100	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11671</b>		RunNo: <b>11671</b>							
Prep Date:	Analysis Date: <b>6/28/2013</b>		SeqNo: <b>331053</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11671</b>		RunNo: <b>11671</b>							
Prep Date:	Analysis Date: <b>6/28/2013</b>		SeqNo: <b>331054</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Bromide	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P)	5.0	0.50	5.000	0	101	90	110			
Sulfate	9.9	0.50	10.00	0	98.7	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11694</b>		RunNo: <b>11694</b>							
Prep Date:	Analysis Date: <b>7/1/2013</b>		SeqNo: <b>331965</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11694</b>		RunNo: <b>11694</b>							
Prep Date:	Analysis Date: <b>7/1/2013</b>		SeqNo: <b>331966</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.6	0.50	5.000	0	91.5	90	110			
Sulfate	9.3	0.50	10.00	0	92.6	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11726</b>		RunNo: <b>11726</b>							
Prep Date:	Analysis Date: <b>7/2/2013</b>		SeqNo: <b>333093</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

**Qualifiers:**

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- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>LCS-b</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11726</b>		RunNo: <b>11726</b>							
Prep Date:	Analysis Date: <b>7/2/2013</b>		SeqNo: <b>333095</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.1	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.2	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11809</b>		RunNo: <b>11809</b>							
Prep Date:	Analysis Date: <b>7/9/2013</b>		SeqNo: <b>335617</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11809</b>		RunNo: <b>11809</b>							
Prep Date:	Analysis Date: <b>7/9/2013</b>		SeqNo: <b>335618</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.8	90	110			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11962</b>		RunNo: <b>11962</b>							
Prep Date:	Analysis Date: <b>7/15/2013</b>		SeqNo: <b>339981</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								

Sample ID <b>LCS-b</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11962</b>		RunNo: <b>11962</b>							
Prep Date:	Analysis Date: <b>7/15/2013</b>		SeqNo: <b>339983</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.45	0.10	0.5000	0	90.4	90	110			

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>5ml rb</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8260: Volatiles Short List</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>R11708</b>	RunNo:	<b>11708</b>					
Prep Date:		Analysis Date:	<b>7/2/2013</b>	SeqNo:	<b>332598</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	2.0								
Surr: 1,2-Dichloroethane-d4	8.8		10.00		88.0	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.2		10.00		91.5	70	130			
Surr: Toluene-d8	9.4		10.00		93.8	70	130			

Sample ID	<b>100ng lcs</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8260: Volatiles Short List</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>R11708</b>	RunNo:	<b>11708</b>					
Prep Date:		Analysis Date:	<b>7/2/2013</b>	SeqNo:	<b>332599</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	102	70	130			
Toluene	21	1.0	20.00	0	106	80	120			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		90.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		100	70	130			
Surr: Dibromofluoromethane	9.2		10.00		92.0	70	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

**Qualifiers:**

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- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
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- P Sample pH greater than 2 for VOA and TOC only.
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>mb-1</b>	SampType: <b>mblk</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11669</b>		RunNo: <b>11669</b>							
Prep Date:	Analysis Date: <b>6/28/2013</b>		SeqNo: <b>330937</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID <b>ics-1</b>	SampType: <b>ics</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11669</b>		RunNo: <b>11669</b>							
Prep Date:	Analysis Date: <b>6/28/2013</b>		SeqNo: <b>330938</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79	20	80.00	0	99.4	90	110			

Sample ID <b>mb-2</b>	SampType: <b>mblk</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R11669</b>		RunNo: <b>11669</b>							
Prep Date:	Analysis Date: <b>6/28/2013</b>		SeqNo: <b>330957</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20								

Sample ID <b>ics-2</b>	SampType: <b>ics</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R11669</b>		RunNo: <b>11669</b>							
Prep Date:	Analysis Date: <b>6/28/2013</b>		SeqNo: <b>330958</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79	20	80.00	0	99.0	90	110			

**Qualifiers:**

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- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
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- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1306C11

19-Jul-13

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB-8185</b>	SampType: <b>MBLK</b>		TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>							
Client ID: <b>PBW</b>	Batch ID: <b>8185</b>		RunNo: <b>11709</b>							
Prep Date: <b>7/1/2013</b>	Analysis Date: <b>7/2/2013</b>		SeqNo: <b>332553</b>	Units: <b>mg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID <b>LCS-8185</b>	SampType: <b>LCS</b>		TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>8185</b>		RunNo: <b>11709</b>							
Prep Date: <b>7/1/2013</b>	Analysis Date: <b>7/2/2013</b>		SeqNo: <b>332554</b>	Units: <b>mg/L</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

**Qualifiers:**

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- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87105  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

### Sample Log-In Check List

Client Name: Safety Env Solutions

Work Order Number: 1306C11

RcptNo: 1

Received by/date: mg 06/28/13

Logged By: **Michelle Garcia** 6/28/2013 9:50:00 AM *Michelle Garcia*

Completed By: **Michelle Garcia** 6/28/2013 11:23:54 AM *Michelle Garcia*

Reviewed By: mg/IO 06/28/13

#### Chain of Custody

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? UPS

#### Log In

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  IO 06/28 NA   
*Added ml of HNO<sub>3</sub> to sample - O/D for acceptable ph.*
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes  No

# of preserved bottles checked for pH: 12  
(12 or >12 unless noted)

Adjusted? YES

Checked by: IO

#### Special Handling (if applicable)

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_

By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

17. Additional remarks:

#### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.0	Good	Yes			

# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Turn-Around Time:  Standard  Rush  
 Project Name: Inex Pct.  
 Project #: YAT-04-002

Project Manager: Boyer, Dave  
 Sampler: Suz. Jurny  
 On Ice:  Yes  No  
 Sample Temperature: 10

Container Type and #	Preservative Type	HEAL No
7	HCL	130601
7	HNO3	-001
7	<del>HNO3</del> H2SO4	-002
7	H2SO4	-003
7		-004

Chain-of-Custody Record  
 Client: Safety & Environmental SOLUTIONS  
 Mailing Address: 703 E. Clinton Hobbs, NM, 84240  
 Phone #: 575-397-0510

QA/QC Package:  Level 4 (Full Validation)  
 Accreditation:  NELAP  Other  EDD (Type)

Date	Time	Matrix	Sample Request ID
06/27	0930	H2O	MW-3
06/27	1000	H2O	MW-1
06/27	1030	H2O	MW-4
06/27	1100	H2O	MW-2

Date: 06/27/19 Time: 1630  
 Relinquished by: Suz Jurny  
 Date: 06/27/19 Time: 130950  
 Received by: Marilyn  
 Received Date: 06/28/19 Time: 130950

Analysis Request	
BTEX + MTBE + TMB's (8021)	<input checked="" type="checkbox"/>
BTEX + MTBE + TPH (Gas only)	<input checked="" type="checkbox"/>
TPH 8015B (GRO / DRO / MRO)	<input checked="" type="checkbox"/>
TPH (Method 418.1)	<input checked="" type="checkbox"/>
EDB (Method 504.1)	<input checked="" type="checkbox"/>
PAH's (8310 or 8270 SIMS)	<input checked="" type="checkbox"/>
RCRA 8 Metals	<input checked="" type="checkbox"/>
Anions (F, Cl, NO3, NO2, PO4, SO4)	<input checked="" type="checkbox"/>
8081 Pesticides / 8082 PCB's	<input checked="" type="checkbox"/>
8260B (VOA)	<input checked="" type="checkbox"/>
8270 (Semi-VOA)	<input checked="" type="checkbox"/>
BTEX, NAPHTHLENES	<input checked="" type="checkbox"/>
WACC DISS METALS	<input checked="" type="checkbox"/>
CATION/ANION BAL	<input checked="" type="checkbox"/>
Lab. PH & TOTAL ALK	<input checked="" type="checkbox"/>
Air Bubbles (Y or N)	<input checked="" type="checkbox"/>

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

May 14, 2018

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 397-0510  
FAX (575) 393-4388

RE: Inex Pit

OrderNo.: 1804B39

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 4/21/2018 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued May 09, 2018.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1804B39**

Date Reported: **5/14/2018**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 4/19/2018 9:00:00 AM

**Lab ID:** 1804B39-001

**Matrix:** AQUEOUS

**Received Date:** 4/21/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Fluoride	ND	2.0		mg/L	20	5/1/2018 8:29:51 AM
Chloride	14000	1000		mg/L	2000	5/1/2018 5:06:27 PM
Bromide	6.2	2.0		mg/L	20	5/1/2018 8:29:51 AM
Phosphorus, Orthophosphate (As P')	ND	10	H	mg/L	20	5/1/2018 8:29:51 AM
Sulfate	2000	1000		mg/L	2000	5/1/2018 5:06:27 PM
Nitrate+Nitrite as N	11	10	*	mg/L	50	5/2/2018 2:49:36 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>pmf</b>
Aluminum	ND	0.020		mg/L	1	5/1/2018 3:15:54 PM
Barium	0.024	0.0020		mg/L	1	5/1/2018 3:15:54 PM
Beryllium	ND	0.0020		mg/L	1	5/1/2018 3:15:54 PM
Cadmium	ND	0.0020		mg/L	1	5/1/2018 3:15:54 PM
Calcium	1400	100		mg/L	100	5/2/2018 5:37:27 PM
Chromium	ND	0.0060		mg/L	1	5/1/2018 3:15:54 PM
Cobalt	ND	0.0060		mg/L	1	5/1/2018 3:15:54 PM
Iron	0.022	0.020		mg/L	1	5/1/2018 3:15:54 PM
Magnesium	530	10		mg/L	10	5/2/2018 5:35:05 PM
Manganese	0.24	0.0020	*	mg/L	1	5/1/2018 3:15:54 PM
Molybdenum	ND	0.0080		mg/L	1	5/1/2018 3:15:54 PM
Nickel	ND	0.010		mg/L	1	5/1/2018 3:15:54 PM
Potassium	19	1.0		mg/L	1	5/1/2018 3:15:54 PM
Silver	0.027	0.0050		mg/L	1	5/1/2018 3:15:54 PM
Sodium	8500	100		mg/L	100	5/2/2018 5:37:27 PM
Zinc	0.070	0.010		mg/L	1	5/2/2018 5:32:55 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBK</b>
Arsenic	0.011	0.010	*	mg/L	10	4/23/2018 4:01:21 PM
Copper	ND	0.0050		mg/L	5	4/23/2018 3:48:41 PM
Lead	ND	0.010		mg/L	20	4/25/2018 4:45:21 PM
Selenium	0.011	0.010		mg/L	10	4/23/2018 4:01:21 PM
Uranium	0.012	0.010		mg/L	20	4/25/2018 4:45:21 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>rde</b>
Mercury	ND	0.0010		mg/L	5	5/1/2018 5:22:07 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	4/27/2018 5:24:00 AM
Toluene	ND	1.0		µg/L	1	4/27/2018 5:24:00 AM
Ethylbenzene	ND	1.0		µg/L	1	4/27/2018 5:24:00 AM
Naphthalene	ND	2.0		µg/L	1	4/27/2018 5:24:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/27/2018 5:24:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order **1804B39**

Date Reported: **5/14/2018**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 4/19/2018 9:00:00 AM

**Lab ID:** 1804B39-001

**Matrix:** AQUEOUS

**Received Date:** 4/21/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	4/27/2018 5:24:00 AM
Xylenes, Total	ND	1.5		µg/L	1	4/27/2018 5:24:00 AM
Surr: 1,2-Dichloroethane-d4	109	70-130		%Rec	1	4/27/2018 5:24:00 AM
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	4/27/2018 5:24:00 AM
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/27/2018 5:24:00 AM
Surr: Toluene-d8	96.3	70-130		%Rec	1	4/27/2018 5:24:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JRR</b>
Conductivity	51000	50		µmhos/cm	10	4/26/2018 7:16:18 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>JRR</b>
pH	7.22		H	pH units	1	4/23/2018 6:27:44 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	282.7	20.00		mg/L CaCO3	1	4/23/2018 6:27:44 PM
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	4/23/2018 6:27:44 PM
Total Alkalinity (as CaCO3)	282.7	20.00		mg/L CaCO3	1	4/23/2018 6:27:44 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>sat</b>
Total Dissolved Solids	28000	100	*D	mg/L	1	4/26/2018 1:21:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order **1804B39**

Date Reported: **5/14/2018**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 4/19/2018 10:05:00 AM

**Lab ID:** 1804B39-002

**Matrix:** AQUEOUS

**Received Date:** 4/21/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Fluoride	ND	2.0		mg/L	20	5/1/2018 8:54:40 AM
Chloride	6400	500		mg/L	1000	5/1/2018 5:18:52 PM
Bromide	3.4	2.0		mg/L	20	5/1/2018 8:54:40 AM
Phosphorus, Orthophosphate (As P')	ND	10	H	mg/L	20	5/1/2018 8:54:40 AM
Sulfate	1300	500		mg/L	1000	5/1/2018 5:18:52 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	5/2/2018 3:02:00 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>pmf</b>
Aluminum	ND	0.020		mg/L	1	5/1/2018 3:18:15 PM
Barium	0.022	0.0020		mg/L	1	5/1/2018 3:18:15 PM
Beryllium	ND	0.0020		mg/L	1	5/1/2018 3:18:15 PM
Cadmium	ND	0.0020		mg/L	1	5/1/2018 3:18:15 PM
Calcium	1100	100		mg/L	100	5/2/2018 5:44:11 PM
Chromium	ND	0.0060		mg/L	1	5/1/2018 3:18:15 PM
Cobalt	ND	0.0060		mg/L	1	5/1/2018 3:18:15 PM
Iron	0.020	0.020		mg/L	1	5/1/2018 3:18:15 PM
Magnesium	440	10		mg/L	10	5/2/2018 5:41:50 PM
Manganese	ND	0.0020		mg/L	1	5/1/2018 3:18:15 PM
Molybdenum	ND	0.0080		mg/L	1	5/1/2018 3:18:15 PM
Nickel	ND	0.010		mg/L	1	5/1/2018 3:18:15 PM
Potassium	6.0	1.0		mg/L	1	5/1/2018 3:18:15 PM
Silver	0.023	0.0050		mg/L	1	5/1/2018 3:18:15 PM
Sodium	3200	100		mg/L	100	5/2/2018 5:44:11 PM
Zinc	0.026	0.010		mg/L	1	5/2/2018 5:39:39 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBK</b>
Arsenic	0.0087	0.0050		mg/L	5	4/23/2018 3:50:58 PM
Copper	ND	0.0050		mg/L	5	4/23/2018 3:50:58 PM
Lead	ND	0.0050		mg/L	10	4/23/2018 4:03:38 PM
Selenium	0.0084	0.0050		mg/L	5	4/23/2018 3:50:58 PM
Uranium	0.010	0.0050		mg/L	10	4/23/2018 4:03:38 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>rde</b>
Mercury	ND	0.00020		mg/L	1	5/1/2018 4:29:58 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	4/27/2018 5:48:00 AM
Toluene	ND	1.0		µg/L	1	4/27/2018 5:48:00 AM
Ethylbenzene	ND	1.0		µg/L	1	4/27/2018 5:48:00 AM
Naphthalene	ND	2.0		µg/L	1	4/27/2018 5:48:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/27/2018 5:48:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order **1804B39**

Date Reported: **5/14/2018**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 4/19/2018 10:05:00 AM

**Lab ID:** 1804B39-002

**Matrix:** AQUEOUS

**Received Date:** 4/21/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	4/27/2018 5:48:00 AM
Xylenes, Total	ND	1.5		µg/L	1	4/27/2018 5:48:00 AM
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	4/27/2018 5:48:00 AM
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	4/27/2018 5:48:00 AM
Surr: Dibromofluoromethane	102	70-130		%Rec	1	4/27/2018 5:48:00 AM
Surr: Toluene-d8	95.5	70-130		%Rec	1	4/27/2018 5:48:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JRR</b>
Conductivity	27000	50		µmhos/cm	10	4/26/2018 7:20:29 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>JRR</b>
pH	7.30		H	pH units	1	4/23/2018 6:43:00 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	189.5	20.00		mg/L CaCO3	1	4/23/2018 6:43:00 PM
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	4/23/2018 6:43:00 PM
Total Alkalinity (as CaCO3)	189.5	20.00		mg/L CaCO3	1	4/23/2018 6:43:00 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>sat</b>
Total Dissolved Solids	15200	40.0	*D	mg/L	1	4/26/2018 1:21:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order **1804B39**

Date Reported: **5/14/2018**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 4/19/2018 11:10:00 AM

**Lab ID:** 1804B39-003

**Matrix:** AQUEOUS

**Received Date:** 4/21/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Fluoride	ND	2.0		mg/L	20	5/1/2018 9:19:28 AM
Chloride	10000	500		mg/L	1000	5/1/2018 5:31:16 PM
Bromide	5.0	2.0		mg/L	20	5/1/2018 9:19:28 AM
Phosphorus, Orthophosphate (As P')	ND	10	H	mg/L	20	5/1/2018 9:19:28 AM
Sulfate	960	500		mg/L	1000	5/1/2018 5:31:16 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	5/2/2018 3:14:25 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>pmf</b>
Aluminum	ND	0.020		mg/L	1	5/1/2018 3:20:45 PM
Barium	0.034	0.0020		mg/L	1	5/1/2018 3:20:45 PM
Beryllium	ND	0.0020		mg/L	1	5/1/2018 3:20:45 PM
Cadmium	ND	0.0020		mg/L	1	5/1/2018 3:20:45 PM
Calcium	2300	100		mg/L	100	5/2/2018 6:03:56 PM
Chromium	ND	0.0060		mg/L	1	5/1/2018 3:20:45 PM
Cobalt	ND	0.0060		mg/L	1	5/1/2018 3:20:45 PM
Iron	ND	0.020		mg/L	1	5/1/2018 3:20:45 PM
Magnesium	790	10		mg/L	10	5/2/2018 6:01:26 PM
Manganese	0.012	0.0020		mg/L	1	5/1/2018 3:20:45 PM
Molybdenum	ND	0.0080		mg/L	1	5/1/2018 3:20:45 PM
Nickel	0.011	0.010		mg/L	1	5/1/2018 3:20:45 PM
Potassium	11	1.0		mg/L	1	5/1/2018 3:20:45 PM
Silver	0.041	0.0050		mg/L	1	5/1/2018 3:20:45 PM
Sodium	4100	100		mg/L	100	5/2/2018 6:03:56 PM
Zinc	0.056	0.010		mg/L	1	5/2/2018 5:52:32 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBK</b>
Arsenic	0.014	0.010	*	mg/L	10	4/23/2018 4:05:54 PM
Copper	ND	0.0050		mg/L	5	4/23/2018 3:56:49 PM
Lead	ND	0.010		mg/L	20	4/25/2018 4:47:38 PM
Selenium	ND	0.010		mg/L	10	4/23/2018 4:05:54 PM
Uranium	0.014	0.010		mg/L	20	4/25/2018 4:47:38 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>rde</b>
Mercury	ND	0.00020		mg/L	1	5/1/2018 4:32:15 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	4/27/2018 6:12:00 AM
Toluene	ND	1.0		µg/L	1	4/27/2018 6:12:00 AM
Ethylbenzene	ND	1.0		µg/L	1	4/27/2018 6:12:00 AM
Naphthalene	ND	2.0		µg/L	1	4/27/2018 6:12:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/27/2018 6:12:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order **1804B39**

Date Reported: **5/14/2018**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 4/19/2018 11:10:00 AM

**Lab ID:** 1804B39-003

**Matrix:** AQUEOUS

**Received Date:** 4/21/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	4/27/2018 6:12:00 AM
Xylenes, Total	ND	1.5		µg/L	1	4/27/2018 6:12:00 AM
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	1	4/27/2018 6:12:00 AM
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	4/27/2018 6:12:00 AM
Surr: Dibromofluoromethane	100	70-130		%Rec	1	4/27/2018 6:12:00 AM
Surr: Toluene-d8	95.6	70-130		%Rec	1	4/27/2018 6:12:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JRR</b>
Conductivity	40000	50		µmhos/cm	10	4/26/2018 7:24:43 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>JRR</b>
pH	7.07		H	pH units	1	4/23/2018 6:54:21 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	191.7	20.00		mg/L CaCO3	1	4/23/2018 6:54:21 PM
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	4/23/2018 6:54:21 PM
Total Alkalinity (as CaCO3)	191.7	20.00		mg/L CaCO3	1	4/23/2018 6:54:21 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>sat</b>
Total Dissolved Solids	22300	40.0	*D	mg/L	1	4/26/2018 1:21:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order **1804B39**

Date Reported: **5/14/2018**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 4/19/2018 12:15:00 PM

**Lab ID:** 1804B39-004

**Matrix:** AQUEOUS

**Received Date:** 4/21/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Fluoride	1.1	0.10		mg/L	1	5/1/2018 9:31:53 AM
Chloride	1200	50		mg/L	100	5/1/2018 5:43:41 PM
Bromide	0.63	0.10		mg/L	1	5/1/2018 9:31:53 AM
Phosphorus, Orthophosphate (As P')	ND	0.50	H	mg/L	1	5/1/2018 9:31:53 AM
Sulfate	990	10		mg/L	20	5/1/2018 9:44:17 AM
Nitrate+Nitrite as N	1.3	1.0		mg/L	5	5/2/2018 3:26:49 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>pmf</b>
Aluminum	ND	0.020		mg/L	1	5/1/2018 3:23:04 PM
Barium	0.014	0.0020		mg/L	1	5/1/2018 3:23:04 PM
Beryllium	ND	0.0020		mg/L	1	5/1/2018 3:23:04 PM
Cadmium	ND	0.0020		mg/L	1	5/1/2018 3:23:04 PM
Calcium	580	10		mg/L	10	5/2/2018 6:08:38 PM
Chromium	ND	0.0060		mg/L	1	5/1/2018 3:23:04 PM
Cobalt	ND	0.0060		mg/L	1	5/1/2018 3:23:04 PM
Iron	ND	0.020		mg/L	1	5/1/2018 3:23:04 PM
Magnesium	210	10		mg/L	10	5/2/2018 6:08:38 PM
Manganese	ND	0.0020		mg/L	1	5/1/2018 3:23:04 PM
Molybdenum	ND	0.0080		mg/L	1	5/1/2018 3:23:04 PM
Nickel	ND	0.010		mg/L	1	5/1/2018 3:23:04 PM
Potassium	2.5	1.0		mg/L	1	5/1/2018 3:23:04 PM
Silver	0.012	0.0050		mg/L	1	5/1/2018 3:23:04 PM
Sodium	270	10		mg/L	10	5/2/2018 6:08:38 PM
Zinc	0.063	0.010		mg/L	1	5/2/2018 6:06:19 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBK</b>
Arsenic	ND	0.0050		mg/L	5	4/23/2018 3:59:06 PM
Copper	ND	0.0010		mg/L	1	4/23/2018 3:41:51 PM
Lead	ND	0.0025		mg/L	5	4/23/2018 3:59:06 PM
Selenium	0.0061	0.0050		mg/L	5	4/23/2018 3:59:06 PM
Uranium	0.0066	0.0025		mg/L	5	4/23/2018 3:59:06 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>rde</b>
Mercury	ND	0.00020		mg/L	1	5/1/2018 4:34:33 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	4/27/2018 6:36:00 AM
Toluene	ND	1.0		µg/L	1	4/27/2018 6:36:00 AM
Ethylbenzene	ND	1.0		µg/L	1	4/27/2018 6:36:00 AM
Naphthalene	ND	2.0		µg/L	1	4/27/2018 6:36:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	4/27/2018 6:36:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order **1804B39**

Date Reported: **5/14/2018**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 4/19/2018 12:15:00 PM

**Lab ID:** 1804B39-004

**Matrix:** AQUEOUS

**Received Date:** 4/21/2018 9:40:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	4/27/2018 6:36:00 AM
Xylenes, Total	ND	1.5		µg/L	1	4/27/2018 6:36:00 AM
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	4/27/2018 6:36:00 AM
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	4/27/2018 6:36:00 AM
Surr: Dibromofluoromethane	101	70-130		%Rec	1	4/27/2018 6:36:00 AM
Surr: Toluene-d8	97.4	70-130		%Rec	1	4/27/2018 6:36:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JRR</b>
Conductivity	5300	5.0		µmhos/cm	1	4/23/2018 7:06:21 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>JRR</b>
pH	7.47		H	pH units	1	4/23/2018 7:06:21 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	154.9	20.00		mg/L CaCO3	1	4/23/2018 7:06:21 PM
Carbonate (As CaCO3)	ND	2.000		mg/L CaCO3	1	4/23/2018 7:06:21 PM
Total Alkalinity (as CaCO3)	154.9	20.00		mg/L CaCO3	1	4/23/2018 7:06:21 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>sat</b>
Total Dissolved Solids	3810	40.0	*D	mg/L	1	4/26/2018 1:21:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Detection Limit
	S % Recovery outside of range due to dilution or matrix	W Sample container temperature is out of limit as specified

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3		MW-1		MW-4		MW-2	
	1804B39-001	1804B39-002	1804B39-002	1804B39-003	1804B39-003	1804B39-004	1804B39-004	1804B39-004
<b>CATIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	8500	369.73	3200	139.19	4100	178.34	270	11.74
Potassium	19	0.49	6.0	0.15	11	0.28	2.5	0.06
Calcium	1400	69.86	1100	54.89	2300	114.77	580	28.94
Magnesium	530	43.62	440	36.21	790	65.02	210	17.28
<b>Total Cations</b>		483.69		230.45		358.41		58.03
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2000	41.64	1300	27.07	960	19.99	990	20.61
Chloride	14000	394.92	6400	180.54	10000	282.09	1200	33.85
Bicarbonate (CaCO3)	282.7	5.65	189.5	3.79	191.7	3.83	154.9	3.10
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)	11	0.79					1.3	0.09
Nitrate (N)							1.1	0.06
Fluoride							0.63	0.01
Bromide	6.2	0.08	3.4	0.04	5.0	0.06		
<b>Total Anions</b>		443.08		211.43		305.97		57.72
Elect. Cond. (µMhos/cm)	51000		27000		40000		5300	
<b>CATION/ANION RATIO</b>		1.09		1.09		1.17		1.01
% Difference		4		4		8		0
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	28000		15200		22300		3810	
TDS (calculated)	26674		12563		18281		3353	
Ratio meas TDS:calc TDS		1.0		1.2		1.2		1.1
Ratio Meas. TDS:EC		0.55		0.56		0.56		0.72
Ratio Calc. TDS:EC		0.52		0.47		0.46		0.63
Ratio of anion sum:EC		0.9		0.8		0.8		1.1
Ratio of cation sum:EC		0.9		0.9		0.9		1.1

\* Analyte not detected (below method detection limit).  
 \*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9.  
 Values much higher than 0.7 are possible in highly saline waters.  
**GENERALLY ACCEPTED RANGES**  
 Cation/Anion balance: 0-3 meq/L - 0.2 meq/L, 3-10 meq/L - 2%, >10 meq/L - 5%  
 Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.  
 Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB-A</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>A50963</b>		RunNo: <b>50963</b>							
Prep Date:	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1655000</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								

Sample ID <b>LCS-A</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A50963</b>		RunNo: <b>50963</b>							
Prep Date:	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1655002</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.53	0.020	0.5000	0	107	85	115			
Barium	0.53	0.0020	0.5000	0	107	85	115			
Beryllium	0.52	0.0020	0.5000	0	105	85	115			
Cadmium	0.54	0.0020	0.5000	0	108	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Cobalt	0.51	0.0060	0.5000	0	102	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Manganese	0.52	0.0020	0.5000	0	105	85	115			
Molybdenum	0.51	0.0080	0.5000	0	103	85	115			
Nickel	0.51	0.010	0.5000	0	102	85	115			
Potassium	48	1.0	50.00	0	96.5	85	115			

Sample ID <b>LCS-A</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A50963</b>		RunNo: <b>50963</b>							
Prep Date:	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1655022</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.099	0.0050	0.1000	0	99.3	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB-A</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>A50995</b>		RunNo: <b>50995</b>							
Prep Date:	Analysis Date: <b>5/2/2018</b>		SeqNo: <b>1656109</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Magnesium	ND	1.0								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID <b>LCS-A</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A50995</b>		RunNo: <b>50995</b>							
Prep Date:	Analysis Date: <b>5/2/2018</b>		SeqNo: <b>1656111</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	100	85	115			
Magnesium	51	1.0	50.00	0	103	85	115			
Sodium	51	1.0	50.00	0	101	85	115			
Zinc	0.55	0.010	0.5000	0	111	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions  
**Project:** Inex Pit

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>B50778</b>		RunNo: <b>50778</b>							
Prep Date:	Analysis Date: <b>4/23/2018</b>		SeqNo: <b>1647086</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>B50778</b>		RunNo: <b>50778</b>							
Prep Date:	Analysis Date: <b>4/23/2018</b>		SeqNo: <b>1647088</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Copper	0.025	0.0010	0.02500	0	101	85	115			
Lead	0.013	0.00050	0.01250	0	101	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Uranium	0.013	0.00050	0.01250	0	104	85	115			

Sample ID <b>MB</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>B50833</b>		RunNo: <b>50833</b>							
Prep Date:	Analysis Date: <b>4/25/2018</b>		SeqNo: <b>1649657</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Uranium	ND	0.00050								

Sample ID <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>B50833</b>		RunNo: <b>50833</b>							
Prep Date:	Analysis Date: <b>4/25/2018</b>		SeqNo: <b>1649659</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	104	85	115			
Uranium	0.012	0.00050	0.01250	0	93.7	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>MB-37879</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>37879</b>	RunNo:	<b>50971</b>					
Prep Date:	<b>5/1/2018</b>	Analysis Date:	<b>5/1/2018</b>	SeqNo:	<b>1654439</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	<b>LCS-37879</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 245.1: Mercury</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>37879</b>	RunNo:	<b>50971</b>					
Prep Date:	<b>5/1/2018</b>	Analysis Date:	<b>5/1/2018</b>	SeqNo:	<b>1654440</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	98.3	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>MB</b>	SampType: <b>mblk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R50981</b>		RunNo: <b>50981</b>							
Prep Date:	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1655302</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								

Sample ID <b>LCS</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R50981</b>		RunNo: <b>50981</b>							
Prep Date:	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1655303</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.54	0.10	0.5000	0	109	90	110			
Bromide	2.4	0.10	2.500	0	95.6	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	95.6	90	110			
Sulfate	9.3	0.50	10.00	0	93.2	90	110			

Sample ID <b>MB</b>	SampType: <b>mblk</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R50983</b>		RunNo: <b>50983</b>							
Prep Date:	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1655344</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID <b>LCS</b>	SampType: <b>lcs</b>		TestCode: <b>EPA Method 300.0: Anions</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R50983</b>		RunNo: <b>50983</b>							
Prep Date:	Analysis Date: <b>5/1/2018</b>		SeqNo: <b>1655345</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.8	90	110			
Sulfate	9.5	0.50	10.00	0	95.0	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.4	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>100ng lcs2</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>SL50874</b>		RunNo: <b>50874</b>							
Prep Date:	Analysis Date: <b>4/27/2018</b>		SeqNo: <b>1651347</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	106	70	130			
Toluene	21	1.0	20.00	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.5	70	130			
Surr: Dibromofluoromethane	10		10.00		99.6	70	130			
Surr: Toluene-d8	9.6		10.00		96.1	70	130			

Sample ID <b>rb3</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>PBW</b>	Batch ID: <b>SL50874</b>		RunNo: <b>50874</b>							
Prep Date:	Analysis Date: <b>4/27/2018</b>		SeqNo: <b>1651348</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		104	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		98.2	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.8		10.00		97.5	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>ics-1 ~20uS eC</b>		SampType:	<b>LCS</b>		TestCode:	<b>SM2510B: Specific Conductance</b>				
Client ID:	<b>LCSW</b>		Batch ID:	<b>R50818</b>		RunNo:	<b>50818</b>				
Prep Date:			Analysis Date:	<b>4/23/2018</b>		SeqNo:	<b>1648570</b>		Units: <b>µmhos/cm</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	22	5.0	19.98	0	109	80	120				

Sample ID	<b>ics-1-b ~20Us eC</b>		SampType:	<b>LCS</b>		TestCode:	<b>SM2510B: Specific Conductance</b>				
Client ID:	<b>LCSW</b>		Batch ID:	<b>R50879</b>		RunNo:	<b>50879</b>				
Prep Date:			Analysis Date:	<b>4/26/2018</b>		SeqNo:	<b>1651240</b>		Units: <b>µmhos/cm</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Conductivity	23	5.0	19.98	0	114	80	120				

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID <b>mb-1 alk</b>	SampType: <b>MBLK</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R50818</b>		RunNo: <b>50818</b>							
Prep Date:	Analysis Date: <b>4/23/2018</b>		SeqNo: <b>1648595</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID <b>ics-1 alk</b>	SampType: <b>LCS</b>		TestCode: <b>SM2320B: Alkalinity</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R50818</b>		RunNo: <b>50818</b>							
Prep Date:	Analysis Date: <b>4/23/2018</b>		SeqNo: <b>1648596</b>		Units: <b>mg/L CaCO3</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.08	20.00	80.00	0	98.8	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1804B39

14-May-18

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID	<b>MB-37787</b>	SampType:	<b>MBLK</b>	TestCode:	<b>SM2540C MOD: Total Dissolved Solids</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>37787</b>	RunNo:	<b>50861</b>					
Prep Date:	<b>4/25/2018</b>	Analysis Date:	<b>4/26/2018</b>	SeqNo:	<b>1650414</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	<b>LCS-37787</b>	SampType:	<b>LCS</b>	TestCode:	<b>SM2540C MOD: Total Dissolved Solids</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>37787</b>	RunNo:	<b>50861</b>					
Prep Date:	<b>4/25/2018</b>	Analysis Date:	<b>4/26/2018</b>	SeqNo:	<b>1650415</b>	Units:	<b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	983	20.0	1000	0	98.3	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

### Sample Log-In Check List

Client Name: Safety Env Solutions      Work Order Number: 1804B39      RcptNo: 1

Received By: Isaiah Ortiz      4/21/2018 9:40:00 AM      ~~IO~~  
Completed By: Ashley Gallegos      4/23/2018 8:48:28 AM      ~~AG~~  
Reviewed By: JMO      4/23/18 Labeled by: ENM

**Chain of Custody**

- 1. Is Chain of Custody complete?      Yes       No       Not Present
- 2. How was the sample delivered?      Courier

**Log In**

- 3. Was an attempt made to cool the samples?      Yes       No       NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C      Yes       No       NA
- 5. Sample(s) in proper container(s)?      Yes       No
- 6. Sufficient sample volume for indicated test(s)?      Yes       No
- 7. Are samples (except VOA and ONG) properly preserved?      Yes       No
- 8. Was preservative added to bottles?      Yes       No       NA
- 9. VOA vials have zero headspace?      Yes       No       No VOA Vials
- 10. Were any sample containers received broken?      Yes       No
- 11. Does paperwork match bottle labels?      Yes       No   
(Note discrepancies on chain of custody)
- 12. Are matrices correctly identified on Chain of Custody?      Yes       No
- 13. Is it clear what analyses were requested?      Yes       No
- 14. Were all holding times able to be met?      Yes       No   
(If no, notify customer for authorization.)

# of preserved bottles checked for pH: 12  
(2 or >12 unless noted)  
Adjusted? NO  
Checked by: ENM

**Special Handling (if applicable)**

- 15. Was client notified of all discrepancies with this order?      Yes       No       NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			

**Chain-of-Custody Record**

Client: Safety & Environmental Solutions  
 Mailing Address: 703 E. Clinton Ave  
 Phone #: 575-397-0570  
 email or Fax#: \_\_\_\_\_  
 QA/QC Package:  Standard  Level 4 (Full Validation)  
 Accreditation:  NELAP  Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

Turn-Around Time: 24 hrs  
 Standard  Rush  
 Project Name: AVEX AIT  
 Project #: YAT-04-003  
 Project Manager: Boyer, Dzee  
 Sampler: Don Lunn  
 On Ice:  Yes  No  
 Sample Temperature: 2.4

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
04/19	0900	A20	MW-3	7	None	1804B39
04/19	1005	A20	MW-1	7		-001
04/19	1110	A20	MW-4	7		-002
04/19	1215	A20	MW-2	7		-003
						-004



4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

www.hallenvironmental.com

**Analysis Request**

Analysis Request	Remarks
BTEX + MTBE + TMB's (8021)	
BTEX + MTBE + TPH (Gas only)	
TPH 8015B (GRO / DRO / MRO)	
TPH (Method 418.1)	
EDB (Method 504.1)	
PAH's (8310 or 8270 SIMS)	
RCRA 8 Metals	
Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	
8081 Pesticides / 8082 PCB's	
8260B (VOA)	
8270 (Semi-VOA)	
BTEX, Naphthalene	
WACC, Dissolved Metals	
Chlorides, Ammonia, TDS, Hal	
Lab PH, TSS, etc.	
Air Bubbles (Y or N)	

Received by: [Signature] Date: 4/18/18 Time: 0730  
 Received by: [Signature] Date: 4/18/18 Time: 0940

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

April 19, 2019

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 390-7067  
FAX (575) 393-4388

RE: Inex Pit

OrderNo.: 1903B04

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/22/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman", is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

Analytical Report

Lab Order 1903B04

Date Reported: 4/19/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-3

Project: Inex Pit

Collection Date: 3/21/2019 9:45:00 AM

Lab ID: 1903B04-001

Matrix: AQUEOUS

Received Date: 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: MRA
Fluoride	ND	2.0		mg/L	20	4/2/2019 7:28:26 PM
Chloride	18000	1000		mg/L	2000	4/3/2019 4:29:43 PM
Bromide	4.5	2.0		mg/L	20	4/2/2019 7:28:26 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	4/2/2019 7:16:02 PM
Sulfate	2500	1000		mg/L	2000	4/3/2019 4:29:43 PM
Nitrate+Nitrite as N	ND	20		mg/L	100	4/3/2019 5:44:09 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: bcv
Aluminum	ND	0.020		mg/L	1	4/2/2019 3:16:21 PM
Barium	0.033	0.0020		mg/L	1	4/2/2019 3:16:21 PM
Beryllium	ND	0.0020		mg/L	1	4/2/2019 3:16:21 PM
Boron	0.43	0.040		mg/L	1	4/2/2019 3:16:21 PM
Cadmium	ND	0.0020		mg/L	1	4/2/2019 3:16:21 PM
Calcium	1300	20		mg/L	20	4/2/2019 8:44:16 PM
Chromium	ND	0.0060		mg/L	1	4/2/2019 3:16:21 PM
Cobalt	ND	0.0060		mg/L	1	4/2/2019 3:16:21 PM
Iron	0.022	0.020		mg/L	1	4/2/2019 3:16:21 PM
Magnesium	540	20		mg/L	20	4/2/2019 8:44:16 PM
Manganese	0.22	0.0020	*	mg/L	1	4/2/2019 3:16:21 PM
Molybdenum	ND	0.0080		mg/L	1	4/2/2019 3:16:21 PM
Nickel	ND	0.010		mg/L	1	4/2/2019 3:16:21 PM
Potassium	21	1.0		mg/L	1	4/2/2019 3:16:21 PM
Silver	0.020	0.0050		mg/L	1	4/2/2019 3:16:21 PM
Sodium	9000	200		mg/L	200	4/2/2019 8:46:38 PM
Zinc	0.033	0.010		mg/L	1	4/2/2019 3:16:21 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: pmf
Antimony	ND	0.020		mg/L	20	4/3/2019 5:19:08 PM
Arsenic	ND	0.010		mg/L	10	4/3/2019 3:52:23 PM
Copper	ND	0.010		mg/L	10	4/3/2019 3:52:23 PM
Lead	ND	0.010		mg/L	20	4/3/2019 5:19:08 PM
Selenium	0.016	0.010		mg/L	10	4/3/2019 3:52:23 PM
Thallium	ND	0.010		mg/L	20	4/3/2019 5:19:08 PM
Uranium	0.011	0.010		mg/L	20	4/3/2019 6:04:48 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: pmf
Mercury	ND	0.00020		mg/L	1	4/2/2019 2:59:14 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: RAA
Benzene	ND	1.0		µg/L	1	3/29/2019 1:59:00 PM
Toluene	ND	1.0		µg/L	1	3/29/2019 1:59:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit	PQL Practical Quantitative Limit
	RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix
	W Sample container temperature is out of limit as specified at testcode	

**Analytical Report**

Lab Order **1903B04**

Date Reported: **4/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 3/21/2019 9:45:00 AM

**Lab ID:** 1903B04-001

**Matrix:** AQUEOUS

**Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Ethylbenzene	ND	1.0		µg/L	1	3/29/2019 1:59:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/29/2019 1:59:00 PM
Naphthalene	ND	2.0		µg/L	1	3/29/2019 1:59:00 PM
Xylenes, Total	ND	1.5		µg/L	1	3/29/2019 1:59:00 PM
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	3/29/2019 1:59:00 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	3/29/2019 1:59:00 PM
Surr: Dibromofluoromethane	98.3	70-130		%Rec	1	3/29/2019 1:59:00 PM
Surr: Toluene-d8	96.8	70-130		%Rec	1	3/29/2019 1:59:00 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JRR</b>
Conductivity	47000	25		µmhos/c	5	4/3/2019 12:28:52 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>JRR</b>
pH	6.88		H	pH units	1	3/27/2019 1:13:41 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	288.1	20.00		mg/L Ca	1	3/27/2019 1:13:41 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	3/27/2019 1:13:41 PM
Total Alkalinity (as CaCO3)	288.1	20.00		mg/L Ca	1	3/27/2019 1:13:41 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	29700	2000	*D	mg/L	1	3/29/2019 3:39:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit	PQL Practical Quantitative Limit
	RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix
	W Sample container temperature is out of limit as specified at testcode	

**Analytical Report**

Lab Order **1903B04**

Date Reported: **4/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 3/21/2019 10:30:00 AM

**Lab ID:** 1903B04-002

**Matrix:** AQUEOUS

**Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Fluoride	ND	0.50		mg/L	5	4/2/2019 8:05:39 PM
Chloride	8400	500		mg/L	1000	4/3/2019 4:42:08 PM
Bromide	2.7	2.0		mg/L	20	4/2/2019 8:18:03 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	4/2/2019 8:05:39 PM
Sulfate	1400	500		mg/L	1000	4/3/2019 4:42:08 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	4/3/2019 5:56:34 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Aluminum	ND	0.020		mg/L	1	4/2/2019 3:20:46 PM
Barium	0.028	0.0020		mg/L	1	4/2/2019 3:20:46 PM
Beryllium	ND	0.0020		mg/L	1	4/2/2019 3:20:46 PM
Boron	0.13	0.040		mg/L	1	4/2/2019 3:20:46 PM
Cadmium	ND	0.0020		mg/L	1	4/2/2019 3:20:46 PM
Calcium	1300	20		mg/L	20	4/2/2019 8:51:10 PM
Chromium	ND	0.0060		mg/L	1	4/2/2019 3:20:46 PM
Cobalt	ND	0.0060		mg/L	1	4/2/2019 3:20:46 PM
Iron	0.073	0.020		mg/L	1	4/2/2019 3:20:46 PM
Magnesium	510	20		mg/L	20	4/2/2019 8:51:10 PM
Manganese	0.0077	0.0020		mg/L	1	4/2/2019 3:20:46 PM
Molybdenum	ND	0.0080		mg/L	1	4/2/2019 3:20:46 PM
Nickel	ND	0.010		mg/L	1	4/2/2019 3:20:46 PM
Potassium	6.4	1.0		mg/L	1	4/2/2019 3:20:46 PM
Silver	0.019	0.0050		mg/L	1	4/2/2019 3:20:46 PM
Sodium	4000	100		mg/L	100	4/8/2019 2:26:37 PM
Zinc	0.020	0.010		mg/L	1	4/2/2019 3:20:46 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>pmf</b>
Antimony	ND	0.0010		mg/L	1	4/3/2019 2:46:45 PM
Arsenic	ND	0.0010		mg/L	1	4/3/2019 2:46:45 PM
Copper	ND	0.0010		mg/L	1	4/3/2019 2:46:45 PM
Lead	ND	0.0050		mg/L	10	4/4/2019 8:04:49 PM
Selenium	ND	0.0010		mg/L	1	4/3/2019 2:46:45 PM
Thallium	ND	0.0050		mg/L	10	4/4/2019 8:04:49 PM
Uranium	0.0099	0.0050		mg/L	10	4/4/2019 8:04:49 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>pmf</b>
Mercury	ND	0.00020		mg/L	1	4/2/2019 3:01:30 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	3/29/2019 3:11:00 PM
Toluene	ND	1.0		µg/L	1	3/29/2019 3:11:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit	PQL Practical Quantitative Limit
	RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix
	W Sample container temperature is out of limit as specified at testcode	

**Analytical Report**

Lab Order **1903B04**

Date Reported: **4/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 3/21/2019 10:30:00 AM

**Lab ID:** 1903B04-002

**Matrix:** AQUEOUS

**Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Ethylbenzene	ND	1.0		µg/L	1	3/29/2019 3:11:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/29/2019 3:11:00 PM
Naphthalene	ND	2.0		µg/L	1	3/29/2019 3:11:00 PM
Xylenes, Total	ND	1.5		µg/L	1	3/29/2019 3:11:00 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	3/29/2019 3:11:00 PM
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	3/29/2019 3:11:00 PM
Surr: Dibromofluoromethane	96.2	70-130		%Rec	1	3/29/2019 3:11:00 PM
Surr: Toluene-d8	98.9	70-130		%Rec	1	3/29/2019 3:11:00 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JRR</b>
Conductivity	30000	25		µmhos/c	5	3/28/2019 11:48:01 AM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>JRR</b>
pH	6.98		H	pH units	1	3/27/2019 1:33:02 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	188.8	20.00		mg/L Ca	1	3/27/2019 1:33:02 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	3/27/2019 1:33:02 PM
Total Alkalinity (as CaCO3)	188.8	20.00		mg/L Ca	1	3/27/2019 1:33:02 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	16200	2000	*D	mg/L	1	3/29/2019 3:39:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit	PQL Practical Quantitative Limit
	RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix
	W Sample container temperature is out of limit as specified at testcode	

**Analytical Report**

Lab Order **1903B04**

Date Reported: **4/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 3/21/2019 11:15:00 AM

**Lab ID:** 1903B04-003

**Matrix:** AQUEOUS

**Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Fluoride	1.9	0.50		mg/L	5	4/2/2019 8:30:28 PM
Chloride	12000	500		mg/L	1000	4/3/2019 4:54:32 PM
Bromide	3.3	2.0		mg/L	20	4/2/2019 8:42:53 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	4/2/2019 8:30:28 PM
Sulfate	1100	500		mg/L	1000	4/3/2019 4:54:32 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	4/3/2019 6:08:59 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Aluminum	ND	0.020		mg/L	1	4/2/2019 8:53:31 PM
Barium	0.041	0.0020		mg/L	1	4/2/2019 8:53:31 PM
Beryllium	ND	0.0020		mg/L	1	4/2/2019 8:53:31 PM
Boron	0.22	0.040		mg/L	1	4/2/2019 8:53:31 PM
Cadmium	ND	0.0020		mg/L	1	4/2/2019 8:53:31 PM
Calcium	2100	50		mg/L	50	4/3/2019 8:15:17 PM
Chromium	ND	0.0060		mg/L	1	4/2/2019 8:53:31 PM
Cobalt	ND	0.0060		mg/L	1	4/2/2019 8:53:31 PM
Iron	0.025	0.020		mg/L	1	4/2/2019 8:53:31 PM
Magnesium	770	20		mg/L	20	4/2/2019 8:55:48 PM
Manganese	0.013	0.0020		mg/L	1	4/2/2019 8:53:31 PM
Molybdenum	ND	0.0080		mg/L	1	4/2/2019 8:53:31 PM
Nickel	ND	0.010		mg/L	1	4/2/2019 8:53:31 PM
Potassium	10	1.0		mg/L	1	4/2/2019 8:53:31 PM
Silver	0.030	0.0050		mg/L	1	4/2/2019 8:53:31 PM
Sodium	3800	50		mg/L	50	4/8/2019 2:24:14 PM
Zinc	0.018	0.010		mg/L	1	4/2/2019 8:53:31 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>pmf</b>
Antimony	ND	0.0050		mg/L	5	4/4/2019 7:59:34 PM
Arsenic	ND	0.0050		mg/L	5	4/3/2019 4:25:07 PM
Copper	ND	0.0050		mg/L	5	4/3/2019 4:25:07 PM
Lead	ND	0.0025		mg/L	5	4/4/2019 7:59:34 PM
Selenium	ND	0.0050		mg/L	5	4/3/2019 4:25:07 PM
Thallium	ND	0.0025		mg/L	5	4/4/2019 7:59:34 PM
Uranium	0.015	0.0025		mg/L	5	4/4/2019 7:59:34 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>pmf</b>
Mercury	ND	0.00020		mg/L	1	4/2/2019 3:03:46 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	3/29/2019 3:36:00 PM
Toluene	ND	1.0		µg/L	1	3/29/2019 3:36:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit	PQL Practical Quantitative Limit
	RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix
	W Sample container temperature is out of limit as specified at testcode	

**Analytical Report**

Lab Order **1903B04**

Date Reported: **4/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 3/21/2019 11:15:00 AM

**Lab ID:** 1903B04-003

**Matrix:** AQUEOUS

**Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Ethylbenzene	ND	1.0		µg/L	1	3/29/2019 3:36:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/29/2019 3:36:00 PM
Naphthalene	ND	2.0		µg/L	1	3/29/2019 3:36:00 PM
Xylenes, Total	ND	1.5		µg/L	1	3/29/2019 3:36:00 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	3/29/2019 3:36:00 PM
Surr: 4-Bromofluorobenzene	99.1	70-130		%Rec	1	3/29/2019 3:36:00 PM
Surr: Dibromofluoromethane	97.0	70-130		%Rec	1	3/29/2019 3:36:00 PM
Surr: Toluene-d8	96.9	70-130		%Rec	1	3/29/2019 3:36:00 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JRR</b>
Conductivity	35000	25		µmhos/c	5	3/28/2019 11:50:56 AM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>JRR</b>
pH	6.83		H	pH units	1	3/27/2019 1:45:35 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	191.7	20.00		mg/L Ca	1	3/27/2019 1:45:35 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	3/27/2019 1:45:35 PM
Total Alkalinity (as CaCO3)	191.7	20.00		mg/L Ca	1	3/27/2019 1:45:35 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	19500	2000	*D	mg/L	1	3/29/2019 3:39:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit	PQL Practical Quantitative Limit
	RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix
	W Sample container temperature is out of limit as specified at testcode	

**Analytical Report**

Lab Order **1903B04**

Date Reported: **4/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 3/21/2019 12:00:00 PM

**Lab ID:** 1903B04-004

**Matrix:** AQUEOUS

**Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Fluoride	ND	0.50		mg/L	5	4/2/2019 8:55:18 PM
Chloride	1600	50		mg/L	100	4/3/2019 5:06:56 PM
Bromide	0.60	0.50		mg/L	5	4/2/2019 8:55:18 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	4/2/2019 8:55:18 PM
Sulfate	990	10		mg/L	20	4/2/2019 9:07:43 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	4/2/2019 10:59:24 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Aluminum	ND	0.020		mg/L	1	4/3/2019 8:17:38 PM
Barium	0.016	0.0020		mg/L	1	4/3/2019 8:17:38 PM
Beryllium	ND	0.0020		mg/L	1	4/3/2019 8:17:38 PM
Boron	0.076	0.040		mg/L	1	4/3/2019 8:17:38 PM
Cadmium	ND	0.0020		mg/L	1	4/3/2019 8:17:38 PM
Calcium	630	10		mg/L	10	4/4/2019 9:23:06 PM
Chromium	ND	0.0060		mg/L	1	4/3/2019 8:17:38 PM
Cobalt	ND	0.0060		mg/L	1	4/3/2019 8:17:38 PM
Iron	ND	0.020		mg/L	1	4/3/2019 8:17:38 PM
Magnesium	220	5.0		mg/L	5	4/3/2019 8:19:55 PM
Manganese	ND	0.0020		mg/L	1	4/3/2019 8:17:38 PM
Molybdenum	ND	0.0080		mg/L	1	4/3/2019 8:17:38 PM
Nickel	ND	0.010		mg/L	1	4/3/2019 8:17:38 PM
Potassium	2.5	1.0		mg/L	1	4/3/2019 8:17:38 PM
Silver	0.0082	0.0050		mg/L	1	4/3/2019 8:17:38 PM
Sodium	340	5.0		mg/L	5	4/4/2019 9:20:45 PM
Zinc	0.021	0.010		mg/L	1	4/3/2019 8:17:38 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>DBK</b>
Antimony	ND	0.0010		mg/L	1	3/28/2019 7:41:12 PM
Arsenic	ND	0.0010		mg/L	1	3/28/2019 7:41:12 PM
Copper	ND	0.0010		mg/L	1	3/28/2019 7:41:12 PM
Lead	ND	0.0025		mg/L	5	3/29/2019 8:55:09 PM
Selenium	0.0054	0.0010		mg/L	1	3/28/2019 7:41:12 PM
Thallium	ND	0.0025		mg/L	5	3/29/2019 8:55:09 PM
Uranium	0.0073	0.0025		mg/L	5	3/29/2019 8:55:09 PM
<b>EPA METHOD 245.1: MERCURY</b>						Analyst: <b>pmf</b>
Mercury	ND	0.00020		mg/L	1	4/2/2019 3:10:39 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Benzene	ND	1.0		µg/L	1	3/29/2019 4:00:00 PM
Toluene	ND	1.0		µg/L	1	3/29/2019 4:00:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit	PQL Practical Quantitative Limit
	RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix
	W Sample container temperature is out of limit as specified at testcode	

**Analytical Report**

Lab Order **1903B04**

Date Reported: **4/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 3/21/2019 12:00:00 PM

**Lab ID:** 1903B04-004

**Matrix:** AQUEOUS

**Received Date:** 3/22/2019 9:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>RAA</b>
Ethylbenzene	ND	1.0		µg/L	1	3/29/2019 4:00:00 PM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	3/29/2019 4:00:00 PM
Naphthalene	ND	2.0		µg/L	1	3/29/2019 4:00:00 PM
Xylenes, Total	ND	1.5		µg/L	1	3/29/2019 4:00:00 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	3/29/2019 4:00:00 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	3/29/2019 4:00:00 PM
Surr: Dibromofluoromethane	96.7	70-130		%Rec	1	3/29/2019 4:00:00 PM
Surr: Toluene-d8	98.2	70-130		%Rec	1	3/29/2019 4:00:00 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>JRR</b>
Conductivity	5900	5.0		µmhos/c	1	3/28/2019 11:53:50 AM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>JRR</b>
pH	7.26		H	pH units	1	3/27/2019 1:58:38 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	150.2	20.00		mg/L Ca	1	3/27/2019 1:58:38 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	3/27/2019 1:58:38 PM
Total Alkalinity (as CaCO3)	150.2	20.00		mg/L Ca	1	3/27/2019 1:58:38 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	4190	20.0	*	mg/L	1	3/29/2019 3:39:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit	PQL Practical Quantitative Limit
	RL Reporting Detection Limit	S % Recovery outside of range due to dilution or matrix
	W Sample container temperature is out of limit as specified at testcode	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3		MW-1		MW-4		MW-2	
	1903B04-001	1903B04-002	1903B04-002	1903B04-003	1903B04-003	1903B04-004	1903B04-004	
<b>CATIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	9000	391.47	4000	173.99	3800	165.29	340	14.79
Potassium	21	0.54	6.4	0.16	10	0.26	2.5	0.06
Calcium	1300	64.87	1300	64.87	2100	104.79	630	31.44
Magnesium	540	44.44	510	41.98	770	63.37	220.0	18.11
<b>Total Cations</b>		501.33		281.00		333.71		64.40
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2500	52.05	1400	29.15	1100	22.90	990	20.61
Chloride	18000	507.76	8400	236.95	12000	338.50	1600	45.13
Bicarbonate (CaCO3)	288.1	5.76	188.8	3.77	191.7	3.83	150.2	3.00
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)								
Fluoride								
Bromide	4.5	0.06	2.7	0.03	3.3	0.04	0.60	0.01
<b>Total Anions</b>		565.62		269.91		365.28		68.76
<b>Elect. Cond. (µMhos/cm)</b>	47000		30000		35000		5900	
<b>CATION/ANION RATIO</b>		0.89		1.04		0.91		0.94
% Difference		6		2		5		3
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	29700		16200		19500		4190	
TDS (calculated)	31538		15732		19898		3873	
Ratio meas TDS:calc TDS		0.9		1.0		1.0		1.1
Ratio Meas. TDS:EC		0.63		0.54		0.56		0.71
Ratio Calc. TDS:EC		0.67		0.52		0.57		0.66
Ratio of anion sum:EC		1.2		0.9		1.0		1.2
Ratio of cation sum:EC		1.1		0.9		1.0		1.1

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB-C</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>C58836</b>	RunNo: <b>58836</b>								
Prep Date:	Analysis Date: <b>4/2/2019</b>	SeqNo: <b>1977259</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Aluminum	ND	0.020								
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID: <b>LCS-C</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>C58836</b>	RunNo: <b>58836</b>								
Prep Date:	Analysis Date: <b>4/2/2019</b>	SeqNo: <b>1977261</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Aluminum	0.54	0.020	0.5000	0	108	85	115			
Barium	0.50	0.0020	0.5000	0	99.2	85	115			
Beryllium	0.50	0.0020	0.5000	0	100	85	115			
Boron	0.51	0.040	0.5000	0	103	85	115			
Cadmium	0.51	0.0020	0.5000	0	102	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Cobalt	0.50	0.0060	0.5000	0	99.3	85	115			
Iron	0.50	0.020	0.5000	0	99.8	85	115			
Manganese	0.49	0.0020	0.5000	0	98.6	85	115			
Molybdenum	0.50	0.0080	0.5000	0	99.2	85	115			
Nickel	0.50	0.010	0.5000	0	99.8	85	115			
Potassium	49	1.0	50.00	0	98.7	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Zinc	0.50	0.010	0.5000	0	99.8	85	115			

Sample ID: <b>LCS-D</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>D58836</b>	RunNo: <b>58836</b>								
Prep Date:	Analysis Date: <b>4/2/2019</b>	SeqNo: <b>1977441</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS-D</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>D58836</b>		RunNo: <b>58836</b>							
Prep Date:	Analysis Date: <b>4/2/2019</b>		SeqNo: <b>1977441</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.54	0.020	0.5000	0	109	85	115			
Barium	0.48	0.0020	0.5000	0	95.9	85	115			
Beryllium	0.49	0.0020	0.5000	0	97.2	85	115			
Boron	0.49	0.040	0.5000	0	98.6	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.2	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.4	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.3	85	115			
Iron	0.49	0.020	0.5000	0	98.6	85	115			
Magnesium	49	1.0	50.00	0	97.5	85	115			
Manganese	0.48	0.0020	0.5000	0	96.2	85	115			
Molybdenum	0.49	0.0080	0.5000	0	97.8	85	115			
Nickel	0.49	0.010	0.5000	0	97.3	85	115			
Potassium	49	1.0	50.00	0	98.4	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	50	1.0	50.00	0	99.9	85	115			
Zinc	0.48	0.010	0.5000	0	96.4	85	115			

Sample ID: <b>MB-A</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>A58872</b>		RunNo: <b>58872</b>							
Prep Date:	Analysis Date: <b>4/3/2019</b>		SeqNo: <b>1978796</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS-A</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A58872</b>		RunNo: <b>58872</b>							
Prep Date:	Analysis Date: <b>4/3/2019</b>		SeqNo: <b>1978798</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.53	0.020	0.5000	0	106	85	115			
Barium	0.46	0.0020	0.5000	0	92.7	85	115			
Beryllium	0.47	0.0020	0.5000	0	93.8	85	115			
Boron	0.48	0.040	0.5000	0	95.5	85	115			
Cadmium	0.48	0.0020	0.5000	0	96.9	85	115			
Calcium	48	1.0	50.00	0	96.7	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Cobalt	0.47	0.0060	0.5000	0	93.9	85	115			
Iron	0.47	0.020	0.5000	0	94.5	85	115			
Magnesium	49	1.0	50.00	0	98.3	85	115			
Manganese	0.46	0.0020	0.5000	0	92.9	85	115			
Molybdenum	0.51	0.0080	0.5000	0	101	85	115			
Nickel	0.47	0.010	0.5000	0	94.3	85	115			
Potassium	49	1.0	50.00	0	97.3	85	115			
Silver	0.099	0.0050	0.1000	0	98.6	85	115			
Zinc	0.48	0.010	0.5000	0	96.8	85	115			

Sample ID: <b>MB-A</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>A58910</b>		RunNo: <b>58910</b>							
Prep Date:	Analysis Date: <b>4/4/2019</b>		SeqNo: <b>1981188</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Sodium	ND	1.0								

Sample ID: <b>LCS-A</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A58910</b>		RunNo: <b>58910</b>							
Prep Date:	Analysis Date: <b>4/4/2019</b>		SeqNo: <b>1981192</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	50	1.0	50.00	0	99.5	85	115			
Sodium	49	1.0	50.00	0	99.0	85	115			

Sample ID: <b>MB-C</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>C58970</b>		RunNo: <b>58970</b>							
Prep Date:	Analysis Date: <b>4/8/2019</b>		SeqNo: <b>1985002</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS-C</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>C58970</b>	RunNo: <b>58970</b>								
Prep Date:	Analysis Date: <b>4/8/2019</b>	SeqNo: <b>1985004</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	48	1.0	50.00	0	96.9	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>C58733</b>	RunNo: <b>58733</b>								
Prep Date:	Analysis Date: <b>3/28/2019</b>	SeqNo: <b>1973010</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Selenium	ND	0.0010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>C58733</b>	RunNo: <b>58733</b>								
Prep Date:	Analysis Date: <b>3/28/2019</b>	SeqNo: <b>1973012</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	99.6	85	115			
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Copper	0.026	0.0010	0.02500	0	102	85	115			
Selenium	0.024	0.0010	0.02500	0	94.2	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>D58772</b>	RunNo: <b>58772</b>								
Prep Date:	Analysis Date: <b>3/29/2019</b>	SeqNo: <b>1974761</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	ND	0.00050								
Thallium	ND	0.00050								
Uranium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>D58772</b>	RunNo: <b>58772</b>								
Prep Date:	Analysis Date: <b>3/29/2019</b>	SeqNo: <b>1974763</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	100	85	115			
Thallium	0.012	0.00050	0.01250	0	99.7	85	115			
Uranium	0.012	0.00050	0.01250	0	98.9	85	115			

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSS02</b>	Batch ID: <b>D58772</b>	RunNo: <b>58772</b>								
Prep Date:	Analysis Date: <b>3/29/2019</b>	SeqNo: <b>1974766</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Lead	0.013	0.00050	0.01250	0	100	85	115	0.283	20	
Thallium	0.012	0.00050	0.01250	0	99.2	85	115	0.446	20	

**Qualifiers:**

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- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCSD</b>	SampType: <b>LCSD</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSS02</b>	Batch ID: <b>D58772</b>	RunNo: <b>58772</b>								
Prep Date:	Analysis Date: <b>3/29/2019</b>	SeqNo: <b>1974766</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Uranium	0.013	0.00050	0.01250	0	101	85	115	2.20	20	

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>B58877</b>	RunNo: <b>58877</b>								
Prep Date:	Analysis Date: <b>4/3/2019</b>	SeqNo: <b>1979243</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								
Uranium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B58877</b>	RunNo: <b>58877</b>								
Prep Date:	Analysis Date: <b>4/3/2019</b>	SeqNo: <b>1979245</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.025	0.0010	0.02500	0	98.6	85	115			
Arsenic	0.026	0.0010	0.02500	0	102	85	115			
Copper	0.026	0.0010	0.02500	0	105	85	115			
Lead	0.012	0.00050	0.01250	0	96.2	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Thallium	0.012	0.00050	0.01250	0	96.5	85	115			
Uranium	0.011	0.00050	0.01250	0	90.1	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A58925</b>	RunNo: <b>58925</b>								
Prep Date:	Analysis Date: <b>4/4/2019</b>	SeqNo: <b>1981556</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Lead	ND	0.00050								
Thallium	ND	0.00050								
Uranium	ND	0.00050								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA 200.8: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A58925</b>		RunNo: <b>58925</b>							
Prep Date:	Analysis Date: <b>4/4/2019</b>		SeqNo: <b>1981558</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.023	0.0010	0.02500	0	93.9	85	115			
Lead	0.012	0.00050	0.01250	0	97.8	85	115			
Thallium	0.012	0.00050	0.01250	0	97.5	85	115			
Uranium	0.013	0.00050	0.01250	0	100	85	115			

**Qualifiers:**

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- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB-44023</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 245.1: Mercury</b>								
Client ID: <b>PBW</b>	Batch ID: <b>44023</b>	RunNo: <b>58827</b>								
Prep Date: <b>4/1/2019</b>	Analysis Date: <b>4/2/2019</b>	SeqNo: <b>1977021</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID: <b>LCS-44023</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 245.1: Mercury</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>44023</b>	RunNo: <b>58827</b>								
Prep Date: <b>4/1/2019</b>	Analysis Date: <b>4/2/2019</b>	SeqNo: <b>1977022</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	97.5	80	120			

**Qualifiers:**

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- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R58843</b>	RunNo: <b>58843</b>								
Prep Date:	Analysis Date: <b>4/2/2019</b>	SeqNo: <b>1977716</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R58843</b>	RunNo: <b>58843</b>								
Prep Date:	Analysis Date: <b>4/2/2019</b>	SeqNo: <b>1977717</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	99.9	90	110			
Bromide	2.4	0.10	2.500	0	96.7	90	110			
Phosphorus, Orthophosphate (As P)	4.8	0.50	5.000	0	96.5	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	100	90	110			

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R58879</b>	RunNo: <b>58879</b>								
Prep Date:	Analysis Date: <b>4/3/2019</b>	SeqNo: <b>1979401</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R58879</b>	RunNo: <b>58879</b>								
Prep Date:	Analysis Date: <b>4/3/2019</b>	SeqNo: <b>1979402</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.0	90	110			
Sulfate	10	0.50	10.00	0	100	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.5	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R58768</b>	RunNo: <b>58768</b>								
Prep Date:	Analysis Date: <b>3/29/2019</b>	SeqNo: <b>1974525</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	99.4	70	130			
Toluene	20	1.0	20.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		101	70	130			
Surr: Dibromofluoromethane	9.7		10.00		96.9	70	130			
Surr: Toluene-d8	9.7		10.00		97.1	70	130			

Sample ID: <b>rb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R58768</b>	RunNo: <b>58768</b>								
Prep Date:	Analysis Date: <b>3/29/2019</b>	SeqNo: <b>1974526</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		102	70	130			
Surr: Dibromofluoromethane	9.6		10.00		96.2	70	130			
Surr: Toluene-d8	9.8		10.00		98.1	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>ics-1 99.0uS eC</b>	SampType: <b>LCS</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R58727</b>	RunNo: <b>58727</b>								
Prep Date:	Analysis Date: <b>3/28/2019</b>	SeqNo: <b>1972652</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.00	0	101	85	115			

Sample ID: <b>icsd-1 99.0uS eC</b>	SampType: <b>LCSD</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSS02</b>	Batch ID: <b>R58727</b>	RunNo: <b>58727</b>								
Prep Date:	Analysis Date: <b>3/28/2019</b>	SeqNo: <b>1972653</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.00	0	101	8085	115	0.100	0	S

Sample ID: <b>ics-1 99.0uS eC</b>	SampType: <b>LCS</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R58867</b>	RunNo: <b>58867</b>								
Prep Date:	Analysis Date: <b>4/3/2019</b>	SeqNo: <b>1978677</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	99	5.0	99.00	0	100	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>mb-1 alk</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R58681</b>	RunNo: <b>58681</b>								
Prep Date:	Analysis Date: <b>3/27/2019</b>	SeqNo: <b>1970642</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>lcs-1 alk</b>	SampType: <b>LCS</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R58681</b>	RunNo: <b>58681</b>								
Prep Date:	Analysis Date: <b>3/27/2019</b>	SeqNo: <b>1970643</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.08	20.00	80.00	0	96.4	90	110			

Sample ID: <b>lcsd-1 alk</b>	SampType: <b>LCSD</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSS02</b>	Batch ID: <b>R58681</b>	RunNo: <b>58681</b>								
Prep Date:	Analysis Date: <b>3/27/2019</b>	SeqNo: <b>1970644</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.12	20.00	80.00	0	96.4	90	110	0.0519	20	

Sample ID: <b>mb-2 alk</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R58681</b>	RunNo: <b>58681</b>								
Prep Date:	Analysis Date: <b>3/27/2019</b>	SeqNo: <b>1970666</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>lcs-2 alk</b>	SampType: <b>LCS</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R58681</b>	RunNo: <b>58681</b>								
Prep Date:	Analysis Date: <b>3/27/2019</b>	SeqNo: <b>1970667</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.24	20.00	80.00	0	96.6	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1903B04

19-Apr-19

**Client:** Safety & Environmental Solutions

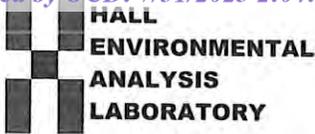
**Project:** Inex Pit

Sample ID: <b>MB-43940</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>43940</b>	RunNo: <b>58754</b>								
Prep Date: <b>3/28/2019</b>	Analysis Date: <b>3/29/2019</b>	SeqNo: <b>1974047</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-43940</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>43940</b>	RunNo: <b>58754</b>								
Prep Date: <b>3/28/2019</b>	Analysis Date: <b>3/29/2019</b>	SeqNo: <b>1974048</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- ND Not Detected at the Reporting Limit
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified at testcode
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: www.hallenvironmental.com

Sample Log-In Check List

Client Name: Safety Env Solutions Work Order Number: 1903B04 RcptNo: 1

Received By: Desiree Dominguez 3/22/2019 9:05:00 AM [Signature]

Completed By: Desiree Dominguez 3/22/2019 1:55:56 PM [Signature]

Reviewed By: DAD 3/22/19
LB: LB 3/22/19

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [ ] NA [ ]
5. Sample(s) in proper container(s)? Yes [checked] No [ ]
6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]
8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]
9. VOA vials have zero headspace? Yes [checked] No [ ] No VOA Vials [ ]
10. Were any sample containers received broken? Yes [ ] No [checked]
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes [checked] No [ ]
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]
13. Is it clear what analyses were requested? Yes [checked] No [ ]
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes [checked] No [ ]

# of preserved bottles checked for pH: 12 (<2 or >12 unless noted)
Adjusted? NO
Checked by: LB

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Row 1: 1, 0.6, Good, Not Present, [ ], [ ], [ ]





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

November 19, 2019

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL:  
FAX:

RE: Inex Pit

OrderNo.: 1910E43

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/29/2019 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **1910E43**

Date Reported: **11/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 10/28/2019 12:30:00 PM

**Lab ID:** 1910E43-001

**Matrix:** AQUEOUS

**Received Date:** 10/29/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>ELS</b>
Antimony	ND	0.010		mg/L	10	11/7/2019 12:25:40 PM	B64306
Arsenic	ND	0.010		mg/L	10	11/8/2019 10:40:36 AM	A64363
Copper	ND	0.010		mg/L	10	11/8/2019 10:40:36 AM	A64363
Lead	ND	0.0050		mg/L	10	11/7/2019 12:25:40 PM	B64306
Selenium	0.018	0.010		mg/L	10	11/8/2019 10:40:36 AM	A64363
Thallium	ND	0.0050		mg/L	10	11/7/2019 12:25:40 PM	B64306
Uranium	0.012	0.0050		mg/L	10	11/8/2019 10:40:36 AM	A64363
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Fluoride	ND	2.0		mg/L	20	10/29/2019 5:51:15 PM	R64044
Chloride	25000	1000		mg/L	2E+	10/30/2019 4:05:36 PM	R64113
Bromide	8.8	5.0		mg/L	50	10/30/2019 3:52:43 PM	R64113
Phosphorus, Orthophosphate (As P)	ND	10		mg/L	20	10/29/2019 5:51:15 PM	R64044
Sulfate	2200	1000		mg/L	2E+	10/30/2019 4:05:36 PM	R64113
Nitrate+Nitrite as N	ND	20		mg/L	100	10/30/2019 5:22:47 PM	R64113
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	89000	250		µmhos/c	50	11/1/2019 9:12:12 AM	R64160
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	260.2	20.00		mg/L Ca	1	10/30/2019 4:16:24 PM	R64112
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	10/30/2019 4:16:24 PM	R64112
Total Alkalinity (as CaCO3)	260.2	20.00		mg/L Ca	1	10/30/2019 4:16:24 PM	R64112
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>JMT</b>
Total Dissolved Solids	49100	2000	*D	mg/L	1	11/4/2019 3:13:00 PM	48529
<b>SM4500-H+B / 9040C: PH</b>							Analyst: <b>JRR</b>
pH	7.13		H	pH units	1	10/30/2019 4:16:24 PM	R64112
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Aluminum	0.030	0.020		mg/L	1	11/12/2019 5:46:15 PM	A64454
Barium	0.038	0.0020		mg/L	1	11/8/2019 4:10:59 PM	B64376
Beryllium	0.0036	0.0020		mg/L	1	11/8/2019 4:10:59 PM	B64376
Boron	0.37	0.040		mg/L	1	11/8/2019 4:10:59 PM	B64376
Cadmium	ND	0.0020		mg/L	1	11/8/2019 4:10:59 PM	B64376
Calcium	1700	20		mg/L	20	11/12/2019 5:48:30 PM	A64454
Chromium	ND	0.0060		mg/L	1	11/8/2019 4:10:59 PM	B64376
Cobalt	ND	0.0060		mg/L	1	11/8/2019 4:10:59 PM	B64376
Iron	0.046	0.020		mg/L	1	11/8/2019 4:10:59 PM	B64376
Magnesium	620	20		mg/L	20	11/12/2019 5:48:30 PM	A64454
Manganese	0.24	0.0020	*	mg/L	1	11/8/2019 4:10:59 PM	B64376

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report

Lab Order 1910E43

Date Reported: 11/19/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-3

Project: Inex Pit

Collection Date: 10/28/2019 12:30:00 PM

Lab ID: 1910E43-001

Matrix: AQUEOUS

Received Date: 10/29/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Molybdenum	ND	0.0080		mg/L	1	11/8/2019 4:10:59 PM	B64376
Nickel	ND	0.010		mg/L	1	11/8/2019 4:10:59 PM	B64376
Potassium	45	1.0		mg/L	1	11/8/2019 4:10:59 PM	B64376
Silver	0.039	0.0050		mg/L	1	11/8/2019 4:10:59 PM	B64376
Sodium	9400	100		mg/L	100	11/12/2019 5:50:46 PM	A64454
Zinc	0.045	0.010		mg/L	1	11/8/2019 4:10:59 PM	B64376
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>JMR</b>
Benzene	ND	1.0		µg/L	1	10/31/2019 4:20:49 PM	SL64147
Toluene	ND	1.0		µg/L	1	10/31/2019 4:20:49 PM	SL64147
Ethylbenzene	ND	1.0		µg/L	1	10/31/2019 4:20:49 PM	SL64147
Naphthalene	ND	2.0		µg/L	1	10/31/2019 4:20:49 PM	SL64147
1-Methylnaphthalene	ND	4.0		µg/L	1	10/31/2019 4:20:49 PM	SL64147
2-Methylnaphthalene	ND	4.0		µg/L	1	10/31/2019 4:20:49 PM	SL64147
Xylenes, Total	ND	1.5		µg/L	1	10/31/2019 4:20:49 PM	SL64147
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%Rec	1	10/31/2019 4:20:49 PM	SL64147
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	10/31/2019 4:20:49 PM	SL64147
Surr: Dibromofluoromethane	99.6	70-130		%Rec	1	10/31/2019 4:20:49 PM	SL64147
Surr: Toluene-d8	100	70-130		%Rec	1	10/31/2019 4:20:49 PM	SL64147

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1910E43**

Date Reported: **11/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 10/28/2019 1:20:00 PM

**Lab ID:** 1910E43-002

**Matrix:** AQUEOUS

**Received Date:** 10/29/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>ELS</b>
Antimony	ND	0.010		mg/L	10	11/7/2019 12:28:18 PM	B64306
Arsenic	ND	0.010		mg/L	10	11/8/2019 10:43:13 AM	A64363
Copper	ND	0.010		mg/L	10	11/8/2019 10:43:13 AM	A64363
Lead	ND	0.0050		mg/L	10	11/7/2019 12:28:18 PM	B64306
Selenium	ND	0.010		mg/L	10	11/8/2019 10:43:13 AM	A64363
Thallium	ND	0.0050		mg/L	10	11/7/2019 12:28:18 PM	B64306
Uranium	0.011	0.0050		mg/L	10	11/8/2019 10:43:13 AM	A64363
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Fluoride	ND	0.50		mg/L	5	10/29/2019 6:04:08 PM	R64044
Chloride	6200	250		mg/L	500	10/30/2019 4:18:27 PM	R64113
Nitrogen, Nitrite (As N)	ND	2.0		mg/L	20	10/29/2019 6:17:00 PM	R64044
Bromide	1.8	0.50		mg/L	5	10/29/2019 6:04:08 PM	R64044
Nitrogen, Nitrate (As N)	0.51	0.50		mg/L	5	10/29/2019 6:04:08 PM	R64044
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	10/29/2019 6:04:08 PM	R64044
Sulfate	1300	250		mg/L	500	10/30/2019 4:18:27 PM	R64113
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	22000	25		µmhos/c	5	11/1/2019 9:15:08 AM	R64160
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	226.7	20.00		mg/L Ca	1	10/30/2019 4:38:06 PM	R64112
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	10/30/2019 4:38:06 PM	R64112
Total Alkalinity (as CaCO3)	226.7	20.00		mg/L Ca	1	10/30/2019 4:38:06 PM	R64112
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>JMT</b>
Total Dissolved Solids	16100	2000	*D	mg/L	1	11/4/2019 3:13:00 PM	48529
<b>SM4500-H+B / 9040C: PH</b>							Analyst: <b>JRR</b>
pH	7.21		H	pH units	1	10/30/2019 4:38:06 PM	R64112
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Aluminum	ND	0.020		mg/L	1	11/12/2019 5:52:55 PM	A64454
Barium	0.026	0.0020		mg/L	1	11/8/2019 4:15:26 PM	B64376
Beryllium	0.0025	0.0020		mg/L	1	11/8/2019 4:15:26 PM	B64376
Boron	0.13	0.040		mg/L	1	11/8/2019 4:15:26 PM	B64376
Cadmium	ND	0.0020		mg/L	1	11/8/2019 4:15:26 PM	B64376
Calcium	1300	20		mg/L	20	11/12/2019 5:55:11 PM	A64454
Chromium	ND	0.0060		mg/L	1	11/8/2019 4:15:26 PM	B64376
Cobalt	ND	0.0060		mg/L	1	11/8/2019 4:15:26 PM	B64376
Iron	ND	0.020		mg/L	1	11/8/2019 4:15:26 PM	B64376
Magnesium	430	5.0		mg/L	5	11/8/2019 4:17:44 PM	B64376

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.
	D	Sample Diluted Due to Matrix
	H	Holding times for preparation or analysis exceeded
	ND	Not Detected at the Reporting Limit
	PQL	Practical Quantitative Limit
	S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order **1910E43**

Date Reported: **11/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 10/28/2019 1:20:00 PM

**Lab ID:** 1910E43-002

**Matrix:** AQUEOUS

**Received Date:** 10/29/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Manganese	0.0026	0.0020		mg/L	1	11/8/2019 4:15:26 PM	B64376
Molybdenum	ND	0.0080		mg/L	1	11/8/2019 4:15:26 PM	B64376
Nickel	ND	0.010		mg/L	1	11/8/2019 4:15:26 PM	B64376
Potassium	9.3	1.0		mg/L	1	11/8/2019 4:15:26 PM	B64376
Silver	0.031	0.0050		mg/L	1	11/8/2019 4:15:26 PM	B64376
Sodium	3100	50		mg/L	50	11/12/2019 5:57:25 PM	A64454
Zinc	0.020	0.010		mg/L	1	11/8/2019 4:15:26 PM	B64376
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>JMR</b>
Benzene	ND	1.0		µg/L	1	10/31/2019 5:46:56 PM	SL64147
Toluene	ND	1.0		µg/L	1	10/31/2019 5:46:56 PM	SL64147
Ethylbenzene	ND	1.0		µg/L	1	10/31/2019 5:46:56 PM	SL64147
Naphthalene	ND	2.0		µg/L	1	10/31/2019 5:46:56 PM	SL64147
1-Methylnaphthalene	ND	4.0		µg/L	1	10/31/2019 5:46:56 PM	SL64147
2-Methylnaphthalene	ND	4.0		µg/L	1	10/31/2019 5:46:56 PM	SL64147
Xylenes, Total	ND	1.5		µg/L	1	10/31/2019 5:46:56 PM	SL64147
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%Rec	1	10/31/2019 5:46:56 PM	SL64147
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	10/31/2019 5:46:56 PM	SL64147
Surr: Dibromofluoromethane	101	70-130		%Rec	1	10/31/2019 5:46:56 PM	SL64147
Surr: Toluene-d8	95.7	70-130		%Rec	1	10/31/2019 5:46:56 PM	SL64147

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1910E43**

Date Reported: **11/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 10/28/2019 2:15:00 PM

**Lab ID:** 1910E43-003

**Matrix:** AQUEOUS

**Received Date:** 10/29/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>ELS</b>
Antimony	ND	0.010		mg/L	10	11/7/2019 12:30:56 PM	B64306
Arsenic	ND	0.010		mg/L	10	11/8/2019 10:45:51 AM	A64363
Copper	ND	0.010		mg/L	10	11/8/2019 10:45:51 AM	A64363
Lead	ND	0.0050		mg/L	10	11/7/2019 12:30:56 PM	B64306
Selenium	ND	0.010		mg/L	10	11/8/2019 10:45:51 AM	A64363
Thallium	ND	0.0050		mg/L	10	11/7/2019 12:30:56 PM	B64306
Uranium	0.014	0.0050		mg/L	10	11/8/2019 10:45:51 AM	A64363
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Fluoride	ND	0.50		mg/L	5	10/29/2019 6:29:52 PM	R64044
Chloride	11000	500		mg/L	1E+	10/30/2019 4:31:19 PM	R64113
Bromide	3.2	2.0		mg/L	20	10/29/2019 6:42:45 PM	R64044
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	10/29/2019 6:29:52 PM	R64044
Sulfate	1000	500		mg/L	1E+	10/30/2019 4:31:19 PM	R64113
Nitrate+Nitrite as N	ND	10		mg/L	50	10/30/2019 5:35:39 PM	R64113
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	34000	25		µmhos/c	5	11/1/2019 9:18:05 AM	R64160
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	190.0	20.00		mg/L Ca	1	10/30/2019 4:51:46 PM	R64112
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	10/30/2019 4:51:46 PM	R64112
Total Alkalinity (as CaCO3)	190.0	20.00		mg/L Ca	1	10/30/2019 4:51:46 PM	R64112
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>JMT</b>
Total Dissolved Solids	22200	2000	*D	mg/L	1	11/4/2019 3:13:00 PM	48529
<b>SM4500-H+B / 9040C: PH</b>							Analyst: <b>JRR</b>
pH	7.07		H	pH units	1	10/30/2019 4:51:46 PM	R64112
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Aluminum	ND	0.020		mg/L	1	11/12/2019 5:59:33 PM	A64454
Barium	0.042	0.0020		mg/L	1	11/8/2019 4:19:51 PM	B64376
Beryllium	0.0041	0.0020	*	mg/L	1	11/8/2019 4:19:51 PM	B64376
Boron	0.18	0.040		mg/L	1	11/8/2019 4:19:51 PM	B64376
Cadmium	ND	0.0020		mg/L	1	11/8/2019 4:19:51 PM	B64376
Calcium	2300	50		mg/L	50	11/12/2019 6:10:45 PM	A64454
Chromium	ND	0.0060		mg/L	1	11/8/2019 4:19:51 PM	B64376
Cobalt	ND	0.0060		mg/L	1	11/8/2019 4:19:51 PM	B64376
Iron	ND	0.020		mg/L	1	11/12/2019 5:59:33 PM	A64454
Magnesium	770	20		mg/L	20	11/12/2019 6:01:40 PM	A64454
Manganese	0.010	0.0020		mg/L	1	11/8/2019 4:19:51 PM	B64376

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **1910E43**

Date Reported: **11/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 10/28/2019 2:15:00 PM

**Lab ID:** 1910E43-003

**Matrix:** AQUEOUS

**Received Date:** 10/29/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Molybdenum	ND	0.0080		mg/L	1	11/8/2019 4:19:51 PM	B64376
Nickel	ND	0.010		mg/L	1	11/8/2019 4:19:51 PM	B64376
Potassium	9.0	1.0		mg/L	1	11/12/2019 5:59:33 PM	A64454
Silver	0.051	0.0050		mg/L	1	11/8/2019 4:19:51 PM	B64376
Sodium	3300	50		mg/L	50	11/12/2019 6:10:45 PM	A64454
Zinc	0.025	0.010		mg/L	1	11/8/2019 4:19:51 PM	B64376
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>JMR</b>
Benzene	ND	1.0		µg/L	1	10/31/2019 6:15:39 PM	SL64147
Toluene	ND	1.0		µg/L	1	10/31/2019 6:15:39 PM	SL64147
Ethylbenzene	ND	1.0		µg/L	1	10/31/2019 6:15:39 PM	SL64147
Naphthalene	ND	2.0		µg/L	1	10/31/2019 6:15:39 PM	SL64147
1-Methylnaphthalene	ND	4.0		µg/L	1	10/31/2019 6:15:39 PM	SL64147
2-Methylnaphthalene	ND	4.0		µg/L	1	10/31/2019 6:15:39 PM	SL64147
Xylenes, Total	ND	1.5		µg/L	1	10/31/2019 6:15:39 PM	SL64147
Surr: 1,2-Dichloroethane-d4	96.6	70-130		%Rec	1	10/31/2019 6:15:39 PM	SL64147
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	10/31/2019 6:15:39 PM	SL64147
Surr: Dibromofluoromethane	100	70-130		%Rec	1	10/31/2019 6:15:39 PM	SL64147
Surr: Toluene-d8	98.3	70-130		%Rec	1	10/31/2019 6:15:39 PM	SL64147

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **1910E43**

Date Reported: **11/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 10/28/2019 3:05:00 PM

**Lab ID:** 1910E43-004

**Matrix:** AQUEOUS

**Received Date:** 10/29/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>ELS</b>
Antimony	ND	0.0050		mg/L	5	11/6/2019 3:58:28 PM	A64277
Arsenic	ND	0.0050		mg/L	5	11/6/2019 3:58:28 PM	A64277
Copper	ND	0.0050		mg/L	5	11/6/2019 3:58:28 PM	A64277
Lead	ND	0.0025		mg/L	5	11/6/2019 3:58:28 PM	A64277
Selenium	0.0053	0.0050		mg/L	5	11/6/2019 3:58:28 PM	A64277
Thallium	ND	0.0025		mg/L	5	11/6/2019 3:58:28 PM	A64277
Uranium	0.0073	0.0025		mg/L	5	11/6/2019 3:58:28 PM	A64277
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CAS</b>
Fluoride	ND	0.50		mg/L	5	10/29/2019 6:55:37 PM	R64044
Chloride	1300	50		mg/L	100	10/30/2019 4:44:11 PM	R64113
Nitrogen, Nitrite (As N)	ND	0.50		mg/L	5	10/29/2019 6:55:37 PM	R64044
Bromide	0.64	0.50		mg/L	5	10/29/2019 6:55:37 PM	R64044
Nitrogen, Nitrate (As N)	0.62	0.50		mg/L	5	10/29/2019 6:55:37 PM	R64044
Phosphorus, Orthophosphate (As P)	ND	2.5		mg/L	5	10/29/2019 6:55:37 PM	R64044
Sulfate	970	10		mg/L	20	10/29/2019 7:08:29 PM	R64044
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	5400	5.0		µmhos/c	1	10/30/2019 5:04:36 PM	R64112
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	156.4	20.00		mg/L Ca	1	10/30/2019 5:04:36 PM	R64112
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	10/30/2019 5:04:36 PM	R64112
Total Alkalinity (as CaCO3)	156.4	20.00		mg/L Ca	1	10/30/2019 5:04:36 PM	R64112
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>JMT</b>
Total Dissolved Solids	3580	20.0	*	mg/L	1	10/31/2019 3:21:00 PM	48479
<b>SM4500-H+B / 9040C: PH</b>							Analyst: <b>JRR</b>
pH	7.47		H	pH units	1	10/30/2019 5:04:36 PM	R64112
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Aluminum	ND	0.020		mg/L	1	11/12/2019 6:13:01 PM	A64454
Barium	0.017	0.0020		mg/L	1	11/8/2019 4:39:34 PM	C64376
Beryllium	ND	0.0020		mg/L	1	11/8/2019 4:39:34 PM	C64376
Boron	0.083	0.040		mg/L	1	11/8/2019 4:39:34 PM	C64376
Cadmium	ND	0.0020		mg/L	1	11/12/2019 6:13:01 PM	A64454
Calcium	580	10		mg/L	10	11/12/2019 6:17:29 PM	A64454
Chromium	ND	0.0060		mg/L	1	11/8/2019 4:39:34 PM	C64376
Cobalt	ND	0.0060		mg/L	1	11/8/2019 4:39:34 PM	C64376
Iron	ND	0.020		mg/L	1	11/8/2019 4:39:34 PM	C64376
Magnesium	190	5.0		mg/L	5	11/8/2019 4:41:48 PM	C64376

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order **1910E43**

Date Reported: **11/19/2019**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 10/28/2019 3:05:00 PM

**Lab ID:** 1910E43-004

**Matrix:** AQUEOUS

**Received Date:** 10/29/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Manganese	0.0024	0.0020		mg/L	1	11/8/2019 4:39:34 PM	C64376
Molybdenum	ND	0.0080		mg/L	1	11/8/2019 4:39:34 PM	C64376
Nickel	ND	0.010		mg/L	1	11/8/2019 4:39:34 PM	C64376
Potassium	2.9	1.0		mg/L	1	11/8/2019 4:39:34 PM	C64376
Silver	0.015	0.0050		mg/L	1	11/8/2019 4:39:34 PM	C64376
Sodium	260	10		mg/L	10	11/12/2019 6:17:29 PM	A64454
Zinc	0.020	0.010		mg/L	1	11/8/2019 4:39:34 PM	C64376
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>JMR</b>
Benzene	ND	1.0		µg/L	1	10/31/2019 6:44:10 PM	SL64147
Toluene	ND	1.0		µg/L	1	10/31/2019 6:44:10 PM	SL64147
Ethylbenzene	ND	1.0		µg/L	1	10/31/2019 6:44:10 PM	SL64147
Naphthalene	ND	2.0		µg/L	1	10/31/2019 6:44:10 PM	SL64147
1-Methylnaphthalene	ND	4.0		µg/L	1	10/31/2019 6:44:10 PM	SL64147
2-Methylnaphthalene	ND	4.0		µg/L	1	10/31/2019 6:44:10 PM	SL64147
Xylenes, Total	ND	1.5		µg/L	1	10/31/2019 6:44:10 PM	SL64147
Surr: 1,2-Dichloroethane-d4	94.2	70-130		%Rec	1	10/31/2019 6:44:10 PM	SL64147
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	1	10/31/2019 6:44:10 PM	SL64147
Surr: Dibromofluoromethane	102	70-130		%Rec	1	10/31/2019 6:44:10 PM	SL64147
Surr: Toluene-d8	97.6	70-130		%Rec	1	10/31/2019 6:44:10 PM	SL64147

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3 1910E43-001		MW-1 1910E43-002		MW-4 1910E43-003		MW-2 1910E43-004	
	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	9400	408.87	3100	134.84	3300	143.54	260	11.31
Potassium	45	1.15	9.3	0.24	9.0	0.23	2.9	0.07
Calcium	1700	84.83	1300	64.87	2300	114.77	580	28.94
Magnesium	620	51.03	430	35.39	770	63.37	190.0	15.64
<b>Total Cations</b>		<b>545.88</b>		<b>235.34</b>		<b>321.92</b>		<b>55.96</b>
<b>ANIONS</b>								
Sulfate	2200	45.80	1300	27.07	1000	20.82	970	20.20
Chloride	25000	705.22	6200	174.89	11000	310.30	1300	36.67
Bicarbonate (CaCO3)	260.2	5.20	226.7	4.53	190.0	3.80	156.4	3.13
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)			0.51	0.04	-		0.6	0.04
Nitrate (N)								
Fluoride								
Bromide	8.8	0.11	1.8	0.02	3	0.04	0.64	0.01
<b>Total Anions</b>		<b>756.33</b>		<b>206.55</b>		<b>334.95</b>		<b>60.04</b>
Elect. Cond. (µMhos/cm)	89000		22000		34000		5400	
<b>CATION/ANION RATIO</b>		<b>0.72</b>		<b>1.14</b>		<b>0.96</b>		<b>0.93</b>
% Difference		16		7		2		4
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	49100		16100		22200		3580	
TDS (calculated)	39130		12479		18496		3400	
Ratio meas TDS:calc TDS		1.3		1.3		1.2		1.1
Ratio Meas. TDS:EC		0.55		0.73		0.65		0.66
Ratio Calc. TDS:EC		0.44		0.57		0.54		0.63
Ratio of anion sum:EC		0.8		0.9		1.0		1.1
Ratio of cation sum:EC		0.6		1.1		0.9		1.0

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L-0.2 meq/L, 3-10 meq/L-2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1.

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>B64376</b>	RunNo: <b>64376</b>								
Prep Date:	Analysis Date: <b>11/8/2019</b>	SeqNo: <b>2203423</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B64376</b>	RunNo: <b>64376</b>								
Prep Date:	Analysis Date: <b>11/8/2019</b>	SeqNo: <b>2203425</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.49	0.0020	0.5000	0	97.6	85	115			
Beryllium	0.49	0.0020	0.5000	0	98.2	85	115			
Boron	0.49	0.040	0.5000	0	97.3	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.0	85	115			
Chromium	0.48	0.0060	0.5000	0	96.8	85	115			
Cobalt	0.46	0.0060	0.5000	0	92.0	85	115			
Iron	0.47	0.020	0.5000	0	94.8	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.47	0.0020	0.5000	0	93.4	85	115			
Molybdenum	0.50	0.0080	0.5000	0	99.4	85	115			
Nickel	0.46	0.010	0.5000	0	92.1	85	115			
Potassium	49	1.0	50.00	0	98.9	85	115			
Silver	0.096	0.0050	0.1000	0	96.4	85	115			
Zinc	0.49	0.010	0.5000	0	97.3	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>C64376</b>	RunNo: <b>64376</b>								
Prep Date:	Analysis Date: <b>11/8/2019</b>	SeqNo: <b>2203479</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>C64376</b>	RunNo: <b>64376</b>								
Prep Date:	Analysis Date: <b>11/8/2019</b>	SeqNo: <b>2203479</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>C64376</b>	RunNo: <b>64376</b>								
Prep Date:	Analysis Date: <b>11/8/2019</b>	SeqNo: <b>2203481</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.52	0.0020	0.5000	0	103	85	115			
Beryllium	0.51	0.0020	0.5000	0	103	85	115			
Boron	0.50	0.040	0.5000	0	99.5	85	115			
Chromium	0.51	0.0060	0.5000	0	101	85	115			
Cobalt	0.49	0.0060	0.5000	0	98.5	85	115			
Iron	0.44	0.020	0.5000	0	87.9	85	115			
Magnesium	47	1.0	50.00	0	93.6	85	115			
Manganese	0.49	0.0020	0.5000	0	98.6	85	115			
Molybdenum	0.52	0.0080	0.5000	0	103	85	115			
Nickel	0.49	0.010	0.5000	0	97.7	85	115			
Potassium	51	1.0	50.00	0	103	85	115			
Silver	0.099	0.0050	0.1000	0	99.1	85	115			
Zinc	0.53	0.010	0.5000	0	105	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A64454</b>	RunNo: <b>64454</b>								
Prep Date:	Analysis Date: <b>11/12/2019</b>	SeqNo: <b>2206533</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Cadmium	ND	0.0020								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A64454</b>	RunNo: <b>64454</b>								
Prep Date:	Analysis Date: <b>11/12/2019</b>	SeqNo: <b>2206533</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Calcium	ND	1.0								
Iron	ND	0.020								
Magnesium	ND	1.0								
Potassium	ND	1.0								
Sodium	ND	1.0								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A64454</b>	RunNo: <b>64454</b>								
Prep Date:	Analysis Date: <b>11/12/2019</b>	SeqNo: <b>2206535</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.54	0.020	0.5000	0	108	85	115			
Cadmium	0.50	0.0020	0.5000	0	99.9	85	115			
Calcium	48	1.0	50.00	0	96.9	85	115			
Iron	0.49	0.020	0.5000	0	97.5	85	115			
Magnesium	49	1.0	50.00	0	97.4	85	115			
Potassium	48	1.0	50.00	0	95.9	85	115			
Sodium	48	1.0	50.00	0	96.7	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A64277</b>	RunNo: <b>64277</b>								
Prep Date:	Analysis Date: <b>11/6/2019</b>	SeqNo: <b>2199835</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								
Uranium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A64277</b>	RunNo: <b>64277</b>								
Prep Date:	Analysis Date: <b>11/6/2019</b>	SeqNo: <b>2199839</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.025	0.0010	0.02500	0	98.1	85	115			
Arsenic	0.025	0.0010	0.02500	0	99.6	85	115			
Copper	0.025	0.0010	0.02500	0	99.6	85	115			
Lead	0.013	0.00050	0.01250	0	100	85	115			
Selenium	0.024	0.0010	0.02500	0	97.3	85	115			
Thallium	0.013	0.00050	0.01250	0	101	85	115			
Uranium	0.013	0.00050	0.01250	0	101	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>B64306</b>	RunNo: <b>64306</b>								
Prep Date:	Analysis Date: <b>11/7/2019</b>	SeqNo: <b>2200820</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	ND	0.0010								
Lead	ND	0.00050								
Thallium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B64306</b>	RunNo: <b>64306</b>								
Prep Date:	Analysis Date: <b>11/7/2019</b>	SeqNo: <b>2200822</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.024	0.0010	0.02500	0	97.4	85	115			
Lead	0.012	0.00050	0.01250	0	99.6	85	115			
Thallium	0.012	0.00050	0.01250	0	98.7	85	115			

**Qualifiers:**

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A64363</b>	RunNo: <b>64363</b>								
Prep Date:	Analysis Date: <b>11/8/2019</b>	SeqNo: <b>2202693</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Selenium	ND	0.0010								
Uranium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A64363</b>	RunNo: <b>64363</b>								
Prep Date:	Analysis Date: <b>11/8/2019</b>	SeqNo: <b>2202695</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.024	0.0010	0.02500	0	94.2	85	115			
Copper	0.023	0.0010	0.02500	0	91.8	85	115			
Selenium	0.023	0.0010	0.02500	0	91.8	85	115			
Uranium	0.012	0.00050	0.01250	0	93.7	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R64044</b>	RunNo: <b>64044</b>								
Prep Date:	Analysis Date: <b>10/29/2019</b>	SeqNo: <b>2192065</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Sulfate	ND	0.50								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R64044</b>	RunNo: <b>64044</b>								
Prep Date:	Analysis Date: <b>10/29/2019</b>	SeqNo: <b>2192066</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	90	110			
Nitrogen, Nitrite (As N)	0.98	0.10	1.000	0	97.6	90	110			
Bromide	2.5	0.10	2.500	0	100	90	110			
Nitrogen, Nitrate (As N)	2.6	0.10	2.500	0	103	90	110			
Phosphorus, Orthophosphate (As P)	4.7	0.50	5.000	0	94.8	90	110			
Sulfate	9.8	0.50	10.00	0	97.8	90	110			

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R64113</b>	RunNo: <b>64113</b>								
Prep Date:	Analysis Date: <b>10/30/2019</b>	SeqNo: <b>2193994</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Bromide	ND	0.10								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS-B</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R64113</b>	RunNo: <b>64113</b>								
Prep Date:	Analysis Date: <b>10/30/2019</b>	SeqNo: <b>2193998</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	96.4	90	110			
Bromide	2.5	0.10	2.500	0	98.4	90	110			
Sulfate	9.7	0.50	10.00	0	97.2	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.7	90	110			

**Qualifiers:**

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- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>SL64147</b>	RunNo: <b>64147</b>								
Prep Date:	Analysis Date: <b>10/31/2019</b>	SeqNo: <b>2195054</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	0	97.9	70	130			
Toluene	19	1.0	20.00	0	93.0	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.7	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		95.0	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Sample ID: <b>rb1</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>SL64147</b>	RunNo: <b>64147</b>								
Prep Date:	Analysis Date: <b>10/31/2019</b>	SeqNo: <b>2195074</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130			
Surr: 4-Bromofluorobenzene	9.4		10.00		93.6	70	130			
Surr: Dibromofluoromethane	10		10.00		100	70	130			
Surr: Toluene-d8	9.8		10.00		97.6	70	130			

**Qualifiers:**

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- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>Ics-1 99.8uS eC</b>	SampType: <b>Ics</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R64112</b>	RunNo: <b>64112</b>								
Prep Date:	Analysis Date: <b>10/30/2019</b>	SeqNo: <b>2193922</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.80	0	102	85	115			

Sample ID: <b>Ics-1 99.1uS eC</b>	SampType: <b>Ics</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R64160</b>	RunNo: <b>64160</b>								
Prep Date:	Analysis Date: <b>11/1/2019</b>	SeqNo: <b>2195401</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	5.0	99.10	0	101	85	115			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| PQL Practical Quantitative Limit                        | RL Reporting Limit                                |
| S % Recovery outside of range due to dilution or matrix |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>mb-1 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R64112</b>	RunNo: <b>64112</b>								
Prep Date:	Analysis Date: <b>10/30/2019</b>	SeqNo: <b>2193872</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>ics-1 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R64112</b>	RunNo: <b>64112</b>								
Prep Date:	Analysis Date: <b>10/30/2019</b>	SeqNo: <b>2193873</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.72	20.00	80.00	0	98.4	90	110			

Sample ID: <b>ics-2 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R64112</b>	RunNo: <b>64112</b>								
Prep Date:	Analysis Date: <b>10/30/2019</b>	SeqNo: <b>2193897</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	80.24	20.00	80.00	0	100	90	110			

Sample ID: <b>mb-2 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R64112</b>	RunNo: <b>64112</b>								
Prep Date:	Analysis Date: <b>10/30/2019</b>	SeqNo: <b>2193899</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

**Qualifiers:**

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- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1910E43

19-Nov-19

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB-48479</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>48479</b>	RunNo: <b>64129</b>								
Prep Date: <b>10/30/2019</b>	Analysis Date: <b>10/31/2019</b>	SeqNo: <b>2194415</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-48479</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>48479</b>	RunNo: <b>64129</b>								
Prep Date: <b>10/30/2019</b>	Analysis Date: <b>10/31/2019</b>	SeqNo: <b>2194416</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1010	20.0	1000	0	101	80	120			

Sample ID: <b>MB-48529</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>48529</b>	RunNo: <b>64202</b>								
Prep Date: <b>11/1/2019</b>	Analysis Date: <b>11/4/2019</b>	SeqNo: <b>2196839</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-48529</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>48529</b>	RunNo: <b>64202</b>								
Prep Date: <b>11/1/2019</b>	Analysis Date: <b>11/4/2019</b>	SeqNo: <b>2196840</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

**Qualifiers:**

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- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: **Safety Env Solutions**

Work Order Number: **1910E43**

RcptNo: 1

Received By: **Juan Rojas**

10/29/2019 9:15:00 AM

Completed By: **Erin Melendrez**

10/29/2019 9:59:30 AM

Reviewed By: **JO**

10/29/19

### Chain of Custody

- 1. Is Chain of Custody complete? Yes  No  Not Present
- 2. How was the sample delivered? Courier

### Log In

- 3. Was an attempt made to cool the samples? Yes  No  NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 5. Sample(s) in proper container(s)? Yes  No
- 6. Sufficient sample volume for indicated test(s)? Yes  No
- 7. Are samples (except VOA and ONG) properly preserved? Yes  No
- 8. Was preservative added to bottles? Yes  No  NA
- 9. VOA vials have zero headspace? Yes  No  ~~No VOA Vials~~
- 10. Were any sample containers received broken? Yes  No
- 11. Does paperwork match bottle labels? Yes  No   
(Note discrepancies on chain of custody)
- 12. Are matrices correctly identified on Chain of Custody? Yes  No
- 13. Is it clear what analyses were requested? Yes  No
- 14. Were all holding times able to be met? Yes  No   
(If no, notify customer for authorization.)

ENM 10/29/19

# of preserved bottles checked for pH: 8  
(≤2 or >12 unless noted)

Adjusted? NO

Checked by: DAD 10/29/19

### Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.4	Good	Yes			
2	1.0	Good	Yes			
3	0.2	Good	Yes			

### Chain-of-Custody Record

Client: Safety + Environmental Solutions  
 Mailing Address: 703 E. Clinton Hobbs N.M. 88240  
 Phone #: 505-397-0510

QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation:  Az Compliance  Other  
 NELAC  Other  
 EDD (Type)

Turn-Around Time:  
 Standard  Rush  
 Project Name:  
Env P.t  
 Project #:  
YAT-04-003

Project Manager:  
Boyer, Dave  
 Sampler: Sen Jerry  
 On Ice:  Yes  No  
 # of Coolers: 3  
 Cooler Temp (including CF): See Remarks (°C)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
10/28	1230	ltw	mw-3	6	Tar	1910E43
	0120	ltw	mw-1	6		-001
	0215	ltw	mw-4	6		-002
	0305	ltw	mw-2	6		-003
						-004

Date: 10/28/19 Time: 1600 Relinquished by: Sen Jerry  
 Date: 10/28/19 Time: 1900 Relinquished by: Sen Jerry



### HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

#### Analysis Request

BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO <sub>2</sub> , NO <sub>3</sub> , PO <sub>4</sub> , SO <sub>4</sub>	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)	BTEX, Nephelence	USOC, Dis-Metals	CATTOW, Anions	TDS, Balance	LAB PH
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Remarks:  
 2.3 + 0.1 = 2.4  
 0.9 + 0.1 = 1.0  
 0.1 + 0.1 = 0.2

Received by: [Signature] Date: 10/28/19 Time: 1600  
 Received by: [Signature] Date: 10/29/19 Time: 9:15

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [clients.hallenvironmental.com](http://clients.hallenvironmental.com)

September 09, 2020

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL:  
FAX:

RE: Inex Pit

OrderNo.: 2008G06

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 8 sample(s) on 8/28/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2008G06**

Date Reported: **9/9/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT1-S, 4'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 9:25:00 AM

**Lab ID:** 2008G06-001

**Matrix:** SOIL

**Received Date:** 8/28/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	26000	480		mg/Kg	50	9/1/2020 11:55:23 AM
Motor Oil Range Organics (MRO)	17000	2400		mg/Kg	50	9/1/2020 11:55:23 AM
Surr: DNOP	0	30.4-154	S	%Rec	50	9/1/2020 11:55:23 AM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	910	59		mg/Kg	20	9/4/2020 2:20:30 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	7.8	1.2		mg/Kg	50	8/30/2020 10:53:00 PM
Toluene	14	2.5		mg/Kg	50	8/30/2020 10:53:00 PM
Ethylbenzene	12	2.5		mg/Kg	50	8/30/2020 10:53:00 PM
Xylenes, Total	15	5.0		mg/Kg	50	8/30/2020 10:53:00 PM
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	50	8/30/2020 10:53:00 PM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	50	8/30/2020 10:53:00 PM
Surr: Dibromofluoromethane	111	70-130		%Rec	50	8/30/2020 10:53:00 PM
Surr: Toluene-d8	97.1	70-130		%Rec	50	8/30/2020 10:53:00 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	280	250		mg/Kg	50	8/30/2020 10:53:00 PM
Surr: BFB	105	70-130		%Rec	50	8/30/2020 10:53:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2008G06**

Date Reported: **9/9/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT1-S, 8'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 9:45:00 AM

**Lab ID:** 2008G06-002

**Matrix:** SOIL

**Received Date:** 8/28/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	11000	190		mg/Kg	20	9/1/2020 12:04:52 PM
Motor Oil Range Organics (MRO)	8200	970		mg/Kg	20	9/1/2020 12:04:52 PM
Surr: DNOP	0	30.4-154	S	%Rec	20	9/1/2020 12:04:52 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	1800	60		mg/Kg	20	9/4/2020 2:57:45 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	0.68	0.25		mg/Kg	10	8/30/2020 11:21:24 PM
Toluene	0.97	0.50		mg/Kg	10	8/30/2020 11:21:24 PM
Ethylbenzene	6.8	0.50		mg/Kg	10	8/30/2020 11:21:24 PM
Xylenes, Total	6.6	1.0		mg/Kg	10	8/30/2020 11:21:24 PM
Surr: 1,2-Dichloroethane-d4	98.4	70-130		%Rec	10	8/30/2020 11:21:24 PM
Surr: 4-Bromofluorobenzene	93.3	70-130		%Rec	10	8/30/2020 11:21:24 PM
Surr: Dibromofluoromethane	109	70-130		%Rec	10	8/30/2020 11:21:24 PM
Surr: Toluene-d8	94.6	70-130		%Rec	10	8/30/2020 11:21:24 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	170	50		mg/Kg	10	8/30/2020 11:21:24 PM
Surr: BFB	102	70-130		%Rec	10	8/30/2020 11:21:24 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2008G06**

Date Reported: **9/9/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT2-S, 4'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 10:20:00 AM

**Lab ID:** 2008G06-003

**Matrix:** SOIL

**Received Date:** 8/28/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	5300	190		mg/Kg	20	9/1/2020 12:14:21 PM
Motor Oil Range Organics (MRO)	3400	940		mg/Kg	20	9/1/2020 12:14:21 PM
Surr: DNOP	0	30.4-154	S	%Rec	20	9/1/2020 12:14:21 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	670	59		mg/Kg	20	9/4/2020 3:10:10 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	0.51	0.12		mg/Kg	5	8/31/2020 3:17:52 PM
Toluene	ND	0.25		mg/Kg	5	8/31/2020 3:17:52 PM
Ethylbenzene	7.4	0.25		mg/Kg	5	8/31/2020 3:17:52 PM
Xylenes, Total	6.1	0.50		mg/Kg	5	8/31/2020 3:17:52 PM
Surr: 1,2-Dichloroethane-d4	100	70-130		%Rec	5	8/31/2020 3:17:52 PM
Surr: 4-Bromofluorobenzene	81.7	70-130		%Rec	5	8/31/2020 3:17:52 PM
Surr: Dibromofluoromethane	108	70-130		%Rec	5	8/31/2020 3:17:52 PM
Surr: Toluene-d8	94.4	70-130		%Rec	5	8/31/2020 3:17:52 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	220	25		mg/Kg	5	8/31/2020 3:17:52 PM
Surr: BFB	108	70-130		%Rec	5	8/31/2020 3:17:52 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2008G06**

Date Reported: **9/9/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT2-S, 7'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 10:30:00 AM

**Lab ID:** 2008G06-004

**Matrix:** SOIL

**Received Date:** 8/28/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	6000	500		mg/Kg	50	9/1/2020 12:23:54 PM
Motor Oil Range Organics (MRO)	6000	2500		mg/Kg	50	9/1/2020 12:23:54 PM
Surr: DNOP	0	30.4-154	S	%Rec	50	9/1/2020 12:23:54 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	220	59		mg/Kg	20	9/4/2020 3:22:34 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.12	D	mg/Kg	5	8/31/2020 3:46:25 PM
Toluene	ND	0.25	D	mg/Kg	5	8/31/2020 3:46:25 PM
Ethylbenzene	ND	0.25	D	mg/Kg	5	8/31/2020 3:46:25 PM
Xylenes, Total	ND	0.50	D	mg/Kg	5	8/31/2020 3:46:25 PM
Surr: 1,2-Dichloroethane-d4	99.9	70-130	D	%Rec	5	8/31/2020 3:46:25 PM
Surr: 4-Bromofluorobenzene	88.5	70-130	D	%Rec	5	8/31/2020 3:46:25 PM
Surr: Dibromofluoromethane	107	70-130	D	%Rec	5	8/31/2020 3:46:25 PM
Surr: Toluene-d8	97.2	70-130	D	%Rec	5	8/31/2020 3:46:25 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	37	25		mg/Kg	5	9/1/2020 6:29:54 AM
Surr: BFB	105	70-130		%Rec	5	9/1/2020 6:29:54 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2008G06**

Date Reported: **9/9/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT1-E 4'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 12:50:00 PM

**Lab ID:** 2008G06-005

**Matrix:** SOIL

**Received Date:** 8/28/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	16000	470		mg/Kg	50	9/1/2020 12:33:26 PM
Motor Oil Range Organics (MRO)	12000	2400		mg/Kg	50	9/1/2020 12:33:26 PM
Surr: DNOP	0	30.4-154	S	%Rec	50	9/1/2020 12:33:26 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	130	61		mg/Kg	20	9/4/2020 3:34:58 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	0.22	0.12		mg/Kg	5	8/31/2020 4:14:59 PM
Toluene	ND	0.25		mg/Kg	5	8/31/2020 4:14:59 PM
Ethylbenzene	3.7	0.25		mg/Kg	5	8/31/2020 4:14:59 PM
Xylenes, Total	1.1	0.50		mg/Kg	5	8/31/2020 4:14:59 PM
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%Rec	5	8/31/2020 4:14:59 PM
Surr: 4-Bromofluorobenzene	84.8	70-130		%Rec	5	8/31/2020 4:14:59 PM
Surr: Dibromofluoromethane	110	70-130		%Rec	5	8/31/2020 4:14:59 PM
Surr: Toluene-d8	99.3	70-130		%Rec	5	8/31/2020 4:14:59 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	110	25		mg/Kg	5	9/1/2020 7:27:02 AM
Surr: BFB	110	70-130		%Rec	5	9/1/2020 7:27:02 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2008G06**

Date Reported: **9/9/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT1-E 8'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 12:55:00 PM

**Lab ID:** 2008G06-006

**Matrix:** SOIL

**Received Date:** 8/28/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	3500	200		mg/Kg	20	9/1/2020 12:43:00 PM
Motor Oil Range Organics (MRO)	2800	990		mg/Kg	20	9/1/2020 12:43:00 PM
Surr: DNOP	0	30.4-154	S	%Rec	20	9/1/2020 12:43:00 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	190	60		mg/Kg	20	9/4/2020 3:47:23 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	0.29	0.050		mg/Kg	2	8/31/2020 4:43:33 PM
Toluene	ND	0.099		mg/Kg	2	8/31/2020 4:43:33 PM
Ethylbenzene	2.0	0.099		mg/Kg	2	8/31/2020 4:43:33 PM
Xylenes, Total	1.1	0.20		mg/Kg	2	8/31/2020 4:43:33 PM
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	2	8/31/2020 4:43:33 PM
Surr: 4-Bromofluorobenzene	76.1	70-130		%Rec	2	8/31/2020 4:43:33 PM
Surr: Dibromofluoromethane	115	70-130		%Rec	2	8/31/2020 4:43:33 PM
Surr: Toluene-d8	103	70-130		%Rec	2	8/31/2020 4:43:33 PM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	69	9.9		mg/Kg	2	9/1/2020 8:24:09 AM
Surr: BFB	111	70-130		%Rec	2	9/1/2020 8:24:09 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2008G06**

Date Reported: **9/9/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP-2 4'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 1:35:00 PM

**Lab ID:** 2008G06-007

**Matrix:** SOIL

**Received Date:** 8/28/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/1/2020 12:52:34 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/1/2020 12:52:34 PM
Surr: DNOP	107	30.4-154		%Rec	1	9/1/2020 12:52:34 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>CAS</b>
Chloride	8800	590		mg/Kg	200	9/6/2020 5:46:49 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.025		mg/Kg	1	8/31/2020 3:37:57 AM
Toluene	ND	0.050		mg/Kg	1	8/31/2020 3:37:57 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/31/2020 3:37:57 AM
Xylenes, Total	ND	0.10		mg/Kg	1	8/31/2020 3:37:57 AM
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%Rec	1	8/31/2020 3:37:57 AM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	8/31/2020 3:37:57 AM
Surr: Dibromofluoromethane	110	70-130		%Rec	1	8/31/2020 3:37:57 AM
Surr: Toluene-d8	96.9	70-130		%Rec	1	8/31/2020 3:37:57 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/31/2020 3:37:57 AM
Surr: BFB	105	70-130		%Rec	1	8/31/2020 3:37:57 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2008G06**

Date Reported: **9/9/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** SP-2, 8'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 1:45:00 PM

**Lab ID:** 2008G06-008

**Matrix:** SOIL

**Received Date:** 8/28/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>						Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	12	8.9		mg/Kg	1	9/1/2020 1:02:09 PM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/1/2020 1:02:09 PM
Surr: DNOP	113	30.4-154		%Rec	1	9/1/2020 1:02:09 PM
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>MRA</b>
Chloride	1800	60		mg/Kg	20	9/4/2020 4:37:01 PM
<b>EPA METHOD 8260B: VOLATILES SHORT LIST</b>						Analyst: <b>JMR</b>
Benzene	ND	0.025		mg/Kg	1	8/31/2020 4:06:25 AM
Toluene	ND	0.050		mg/Kg	1	8/31/2020 4:06:25 AM
Ethylbenzene	ND	0.050		mg/Kg	1	8/31/2020 4:06:25 AM
Xylenes, Total	ND	0.099		mg/Kg	1	8/31/2020 4:06:25 AM
Surr: 1,2-Dichloroethane-d4	97.4	70-130		%Rec	1	8/31/2020 4:06:25 AM
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	8/31/2020 4:06:25 AM
Surr: Dibromofluoromethane	112	70-130		%Rec	1	8/31/2020 4:06:25 AM
Surr: Toluene-d8	98.0	70-130		%Rec	1	8/31/2020 4:06:25 AM
<b>EPA METHOD 8015D MOD: GASOLINE RANGE</b>						Analyst: <b>JMR</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	8/31/2020 4:06:25 AM
Surr: BFB	103	70-130		%Rec	1	8/31/2020 4:06:25 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2008G06

09-Sep-20

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB-54954</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54954</b>	RunNo: <b>71641</b>								
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/4/2020</b>	SeqNo: <b>2504278</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-54954</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54954</b>	RunNo: <b>71641</b>								
Prep Date: <b>9/4/2020</b>	Analysis Date: <b>9/4/2020</b>	SeqNo: <b>2504279</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.6	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2008G06

09-Sep-20

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS-54795</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54795</b>	RunNo: <b>71555</b>								
Prep Date: <b>8/31/2020</b>	Analysis Date: <b>9/1/2020</b>	SeqNo: <b>2499585</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	35	10	50.00	0	70.1	70	130			
Surr: DNOP	4.8		5.000		96.7	30.4	154			

Sample ID: <b>MB-54795</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54795</b>	RunNo: <b>71555</b>								
Prep Date: <b>8/31/2020</b>	Analysis Date: <b>9/1/2020</b>	SeqNo: <b>2499590</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		101	30.4	154			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2008G06

09-Sep-20

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>ics-54779</b>	SampType: <b>LCS4</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>BatchQC</b>	Batch ID: <b>54779</b>	RunNo: <b>71493</b>								
Prep Date: <b>8/29/2020</b>	Analysis Date: <b>8/30/2020</b>	SeqNo: <b>2496739</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.7	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.1	0.050	1.000	0	110	80	120			
Xylenes, Total	3.4	0.10	3.000	0	113	80	120			
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		93.0	70	130			
Surr: 4-Bromofluorobenzene	0.54		0.5000		108	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: <b>mb-54779</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260B: Volatiles Short List</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54779</b>	RunNo: <b>71493</b>								
Prep Date: <b>8/29/2020</b>	Analysis Date: <b>8/30/2020</b>	SeqNo: <b>2496740</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.4	70	130			
Surr: 4-Bromofluorobenzene	0.50		0.5000		100	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		106	70	130			
Surr: Toluene-d8	0.49		0.5000		97.2	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2008G06

09-Sep-20

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>ics-54779</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>54779</b>	RunNo: <b>71493</b>								
Prep Date: <b>8/29/2020</b>	Analysis Date: <b>8/30/2020</b>	SeqNo: <b>2496787</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	85.2	70	130			
Surr: BFB	520		500.0		103	70	130			

Sample ID: <b>mb-54779</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D Mod: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>54779</b>	RunNo: <b>71493</b>								
Prep Date: <b>8/29/2020</b>	Analysis Date: <b>8/30/2020</b>	SeqNo: <b>2496794</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		103	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory  
 4901 Hawkins NE  
 Albuquerque, NM 87109  
 TEL: 505-345-3975 FAX: 505-345-4107  
 Website: clients.hallenvironmental.com

### Sample Log-In Check List

Client Name: Safety & Environmental Solutions      Work Order Number: 2008G06      RcptNo: 1

Received By: Juan Rojas      8/28/2020 8:00:00 AM      *Juan Rojas*  
 Completed By: Juan Rojas      8/28/2020 10:43:02 AM      *Juan Rojas*  
 Reviewed By: *LR*      8/28/20

**Chain of Custody**

1. Is Chain of Custody complete?      Yes       No       Not Present   
 2. How was the sample delivered?      Courier

**Log In**

3. Was an attempt made to cool the samples?      Yes       No       NA   
 4. Were all samples received at a temperature of >0° C to 6.0°C?      Yes       No       NA   
 5. Sample(s) in proper container(s)?      Yes       No   
 6. Sufficient sample volume for indicated test(s)?      Yes       No   
 7. Are samples (except VOA and ONG) properly preserved?      Yes       No   
 8. Was preservative added to bottles?      Yes       No       NA   
 9. Received at least 1 vial with headspace <1/4" for AQ VOA?      Yes       No       NA   
 10. Were any sample containers received broken?      Yes       No   
 11. Does paperwork match bottle labels?      Yes       No   
     (Note discrepancies on chain of custody)  
 12. Are matrices correctly identified on Chain of Custody?      Yes       No   
 13. Is it clear what analyses were requested?      Yes       No   
 14. Were all holding times able to be met?      Yes       No   
     (If no, notify customer for authorization.)

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by *8/28/20*

**Special Handling (if applicable)**

15. Was client notified of all discrepancies with this order?      Yes       No       NA

Person Notified:	<input type="text"/>	Date:	<input type="text"/>
By Whom:	<input type="text"/>	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	<input type="text"/>		
Client Instructions:	<input type="text"/>		

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.6	Good				
2	4.9	Good				
3	1.3	Good				





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

January 13, 2021

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL:  
FAX:

RE: Inex Pit

OrderNo.: 2012A74

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 12/22/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2012A74**

Date Reported: 1/13/2021

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT1 4'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 8:20:00 AM

**Lab ID:** 2012A74-001

**Matrix:** SOIL

**Received Date:** 12/22/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	60	H	mg/Kg	20	1/12/2021 4:16:55 PM	57484

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2012A74**

Date Reported: 1/13/2021

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT1 S + 25' 4'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 9:55:00 AM

**Lab ID:** 2012A74-002

**Matrix:** SOIL

**Received Date:** 12/22/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	2300	150	H	mg/Kg	50	1/13/2021 7:35:16 AM	57484

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2012A74**

Date Reported: 1/13/2021

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** NT1 E + 20' 4'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 1:00:00 PM

**Lab ID:** 2012A74-003

**Matrix:** SOIL

**Received Date:** 12/22/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	ND	61	H	mg/Kg	20	1/12/2021 4:41:44 PM	57484

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	D	Sample Diluted Due to Matrix	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Limit
	S	% Recovery outside of range due to dilution or matrix		

**Analytical Report**

Lab Order **2012A74**

Date Reported: 1/13/2021

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** Inex Background 4'

**Project:** Inex Pit

**Collection Date:** 8/26/2020 2:00:00 PM

**Lab ID:** 2012A74-004

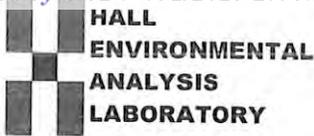
**Matrix:** SOIL

**Received Date:** 12/22/2020 7:45:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>VP</b>
Chloride	1300	60	H	mg/Kg	20	1/12/2021 4:54:08 PM	57484

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Safety & Environmental S Work Order Number: 2012A74 RcptNo: 1

Received By: Isaiah Ortiz 12/22/2020 7:45:00 AM I-OX
Completed By: Isaiah Ortiz 12/22/2020 8:55:37 AM I-OX
Reviewed By: JR 12/22/20

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [ ] NA [ ]
5. Sample(s) in proper container(s)? Yes [checked] No [ ]
6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]
8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [ ] No [ ] NA [checked]
10. Were any sample containers received broken? Yes [ ] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No [ ]
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]
13. Is it clear what analyses were requested? Yes [checked] No [ ]
14. Were all holding times able to be met? Yes [checked] No [ ]

# of preserved bottles checked for pH: (<2 or >12 unless noted) Adjusted?
Checked by: SGC 12/22/20

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Contains 3 rows of data.





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

October 15, 2020

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL:  
FAX:

RE: Inex Pit

OrderNo.: 2009B71

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/19/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order 2009B71

Date Reported: 10/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 9/17/2020 1:35:00 PM

**Lab ID:** 2009B71-001

**Matrix:** AQUEOUS

**Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	9/30/2020 4:05:38 PM	A72310
Arsenic	ND	0.010		mg/L	10	9/30/2020 4:05:38 PM	A72310
Lead	ND	0.0050		mg/L	10	9/30/2020 4:05:38 PM	A72310
Selenium	0.015	0.010		mg/L	10	9/30/2020 4:05:38 PM	A72310
Thallium	ND	0.0050		mg/L	10	9/30/2020 4:05:38 PM	A72310
Uranium	0.012	0.0050		mg/L	10	9/30/2020 4:05:38 PM	A72310
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Fluoride	ND	2.0		mg/L	20	10/1/2020 1:40:08 PM	R72353
Chloride	13000	500		mg/L	1E+	10/3/2020 12:40:11 PM	R72383
Bromide	5.9	0.50		mg/L	5	10/1/2020 1:27:44 PM	R72353
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	10/1/2020 1:27:44 PM	R72353
Sulfate	2100	500		mg/L	1E+	10/3/2020 12:40:11 PM	R72383
Nitrate+Nitrite as N	ND	10		mg/L	50	10/3/2020 3:21:31 PM	R72383
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	45000	50		µmhos/c	5	9/25/2020 8:19:17 AM	R72166
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	289.7	20.00		mg/L Ca	1	9/24/2020 11:15:37 AM	R72131
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	9/24/2020 11:15:37 AM	R72131
Total Alkalinity (as CaCO3)	289.7	20.00		mg/L Ca	1	9/24/2020 11:15:37 AM	R72131
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	25500	200	*D	mg/L	1	9/22/2020 1:37:00 PM	55292
<b>SM4500-H+B / 9040C: PH</b>							Analyst: <b>JRR</b>
pH	7.03		H	pH units	1	9/24/2020 11:15:37 AM	R72131
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>ags</b>
Aluminum	ND	0.10		mg/L	5	10/7/2020 7:38:03 PM	B72487
Barium	0.032	0.010		mg/L	5	10/7/2020 7:38:03 PM	B72487
Beryllium	ND	0.010		mg/L	5	10/7/2020 7:38:03 PM	B72487
Boron	0.39	0.20		mg/L	5	10/7/2020 7:38:03 PM	B72487
Cadmium	ND	0.010		mg/L	5	10/7/2020 7:38:03 PM	B72487
Calcium	1400	50		mg/L	50	10/5/2020 5:51:17 PM	A72400
Chromium	ND	0.030		mg/L	5	10/7/2020 7:38:03 PM	B72487
Cobalt	ND	0.030		mg/L	5	10/7/2020 7:38:03 PM	B72487
Copper	ND	0.030		mg/L	5	10/7/2020 7:38:03 PM	B72487
Iron	ND	0.10		mg/L	5	10/9/2020 1:12:27 PM	B72603
Magnesium	540	50		mg/L	50	10/5/2020 5:51:17 PM	A72400
Manganese	0.23	0.010	*	mg/L	5	10/7/2020 7:38:03 PM	B72487

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order 2009B71

Date Reported: 10/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 9/17/2020 1:35:00 PM

**Lab ID:** 2009B71-001

**Matrix:** AQUEOUS

**Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>ags</b>
Molybdenum	ND	0.040		mg/L	5	10/7/2020 7:38:03 PM	B72487
Nickel	ND	0.050		mg/L	5	10/7/2020 7:38:03 PM	B72487
Potassium	20	5.0		mg/L	5	10/5/2020 5:49:26 PM	A72400
Silver	ND	0.025		mg/L	5	10/7/2020 7:38:03 PM	B72487
Sodium	6800	100		mg/L	100	10/7/2020 7:47:18 PM	B72487
Zinc	ND	0.050		mg/L	5	10/7/2020 7:38:03 PM	B72487
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	9/25/2020 1:10:51 AM	A72134
Toluene	ND	1.0		µg/L	1	9/25/2020 1:10:51 AM	A72134
Ethylbenzene	ND	1.0		µg/L	1	9/25/2020 1:10:51 AM	A72134
Naphthalene	ND	2.0		µg/L	1	9/25/2020 1:10:51 AM	A72134
1-Methylnaphthalene	ND	4.0		µg/L	1	9/25/2020 1:10:51 AM	A72134
2-Methylnaphthalene	ND	4.0		µg/L	1	9/25/2020 1:10:51 AM	A72134
Xylenes, Total	ND	1.5		µg/L	1	9/25/2020 1:10:51 AM	A72134
Surr: 1,2-Dichloroethane-d4	91.4	70-130		%Rec	1	9/25/2020 1:10:51 AM	A72134
Surr: 4-Bromofluorobenzene	97.1	70-130		%Rec	1	9/25/2020 1:10:51 AM	A72134
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/25/2020 1:10:51 AM	A72134
Surr: Toluene-d8	95.2	70-130		%Rec	1	9/25/2020 1:10:51 AM	A72134

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order 2009B71

Date Reported: 10/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 9/17/2020 2:00:00 PM

**Lab ID:** 2009B71-002

**Matrix:** AQUEOUS

**Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	9/30/2020 4:08:14 PM	A72310
Arsenic	ND	0.010		mg/L	10	9/30/2020 4:08:14 PM	A72310
Lead	ND	0.0050		mg/L	10	9/30/2020 4:08:14 PM	A72310
Selenium	ND	0.010		mg/L	10	9/30/2020 4:08:14 PM	A72310
Thallium	ND	0.0050		mg/L	10	9/30/2020 4:08:14 PM	A72310
Uranium	0.010	0.0050		mg/L	10	9/30/2020 4:08:14 PM	A72310
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Fluoride	ND	0.50		mg/L	5	10/1/2020 1:52:32 PM	R72353
Chloride	7900	500		mg/L	1E+	10/3/2020 12:52:35 PM	R72383
Bromide	3.8	0.50		mg/L	5	10/1/2020 1:52:32 PM	R72353
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	10/1/2020 1:52:32 PM	R72353
Sulfate	1200	500		mg/L	1E+	10/3/2020 12:52:35 PM	R72383
Nitrate+Nitrite as N	ND	10		mg/L	50	10/3/2020 3:33:56 PM	R72383
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	31000	50		µmhos/c	5	9/25/2020 8:22:18 AM	R72166
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	174.3	20.00		mg/L Ca	1	9/24/2020 11:31:05 AM	R72131
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	9/24/2020 11:31:05 AM	R72131
Total Alkalinity (as CaCO3)	174.3	20.00		mg/L Ca	1	9/24/2020 11:31:05 AM	R72131
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	19000	200	*D	mg/L	1	9/22/2020 1:37:00 PM	55292
<b>SM4500-H+B / 9040C: PH</b>							Analyst: <b>JRR</b>
pH	7.14		H	pH units	1	9/24/2020 11:31:05 AM	R72131
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>ags</b>
Aluminum	ND	0.10		mg/L	5	10/7/2020 7:49:10 PM	B72487
Barium	0.034	0.010		mg/L	5	10/7/2020 7:49:10 PM	B72487
Beryllium	ND	0.010		mg/L	5	10/7/2020 7:49:10 PM	B72487
Boron	ND	0.20		mg/L	5	10/7/2020 7:49:10 PM	B72487
Cadmium	ND	0.010		mg/L	5	10/7/2020 7:49:10 PM	B72487
Calcium	1400	50		mg/L	50	10/5/2020 6:02:09 PM	A72400
Chromium	ND	0.030		mg/L	5	10/7/2020 7:49:10 PM	B72487
Cobalt	ND	0.030		mg/L	5	10/7/2020 7:49:10 PM	B72487
Copper	ND	0.030		mg/L	5	10/7/2020 7:49:10 PM	B72487
Iron	ND	0.10		mg/L	5	10/7/2020 7:49:10 PM	B72487
Magnesium	530	50		mg/L	50	10/7/2020 7:51:03 PM	B72487
Manganese	ND	0.010		mg/L	5	10/7/2020 7:49:10 PM	B72487

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order 2009B71

Date Reported: 10/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 9/17/2020 2:00:00 PM

**Lab ID:** 2009B71-002

**Matrix:** AQUEOUS

**Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>ags</b>
Molybdenum	ND	0.040		mg/L	5	10/7/2020 7:49:10 PM	B72487
Nickel	ND	0.050		mg/L	5	10/7/2020 7:49:10 PM	B72487
Potassium	7.3	5.0		mg/L	5	10/5/2020 6:00:16 PM	A72400
Silver	ND	0.025		mg/L	5	10/7/2020 7:49:10 PM	B72487
Sodium	3600	50		mg/L	50	10/5/2020 6:02:09 PM	A72400
Zinc	ND	0.050		mg/L	5	10/7/2020 7:49:10 PM	B72487
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	9/25/2020 1:39:20 AM	A72134
Toluene	ND	1.0		µg/L	1	9/25/2020 1:39:20 AM	A72134
Ethylbenzene	ND	1.0		µg/L	1	9/25/2020 1:39:20 AM	A72134
Naphthalene	ND	2.0		µg/L	1	9/25/2020 1:39:20 AM	A72134
1-Methylnaphthalene	ND	4.0		µg/L	1	9/25/2020 1:39:20 AM	A72134
2-Methylnaphthalene	ND	4.0		µg/L	1	9/25/2020 1:39:20 AM	A72134
Xylenes, Total	ND	1.5		µg/L	1	9/25/2020 1:39:20 AM	A72134
Surr: 1,2-Dichloroethane-d4	96.1	70-130		%Rec	1	9/25/2020 1:39:20 AM	A72134
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	9/25/2020 1:39:20 AM	A72134
Surr: Dibromofluoromethane	112	70-130		%Rec	1	9/25/2020 1:39:20 AM	A72134
Surr: Toluene-d8	96.6	70-130		%Rec	1	9/25/2020 1:39:20 AM	A72134

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order **2009B71**

Date Reported: **10/15/2020**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 9/17/2020 2:25:00 PM

**Lab ID:** 2009B71-003

**Matrix:** AQUEOUS

**Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	9/30/2020 4:10:50 PM	A72310
Arsenic	ND	0.010		mg/L	10	9/30/2020 4:10:50 PM	A72310
Lead	ND	0.0050		mg/L	10	9/30/2020 4:10:50 PM	A72310
Selenium	ND	0.010		mg/L	10	9/30/2020 4:10:50 PM	A72310
Thallium	ND	0.0050		mg/L	10	9/30/2020 4:10:50 PM	A72310
Uranium	0.014	0.0050		mg/L	10	9/30/2020 4:10:50 PM	A72310
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Fluoride	ND	0.50		mg/L	5	10/1/2020 2:17:21 PM	R72353
Chloride	10000	500		mg/L	1E+	10/3/2020 1:05:00 PM	R72383
Bromide	4.6	0.50		mg/L	5	10/1/2020 2:17:21 PM	R72353
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	10/1/2020 2:17:21 PM	R72353
Sulfate	1000	500		mg/L	1E+	10/3/2020 1:05:00 PM	R72383
Nitrate+Nitrite as N	ND	10		mg/L	50	10/3/2020 3:46:20 PM	R72383
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	35000	50		µmhos/c	5	9/25/2020 8:25:17 AM	R72166
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	189.9	20.00		mg/L Ca	1	9/24/2020 11:42:39 AM	R72131
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	9/24/2020 11:42:39 AM	R72131
Total Alkalinity (as CaCO3)	189.9	20.00		mg/L Ca	1	9/24/2020 11:42:39 AM	R72131
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	22500	200	*D	mg/L	1	9/22/2020 1:37:00 PM	55292
<b>SM4500-H+B / 9040C: PH</b>							Analyst: <b>JRR</b>
pH	7.02		H	pH units	1	9/24/2020 11:42:39 AM	R72131
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>ags</b>
Aluminum	ND	0.10		mg/L	5	10/5/2020 6:03:59 PM	A72400
Barium	0.046	0.010		mg/L	5	10/5/2020 6:03:59 PM	A72400
Beryllium	ND	0.010		mg/L	5	10/5/2020 6:03:59 PM	A72400
Boron	0.21	0.20		mg/L	5	10/5/2020 6:03:59 PM	A72400
Cadmium	ND	0.010		mg/L	5	10/5/2020 6:03:59 PM	A72400
Calcium	2300	50		mg/L	50	10/5/2020 6:05:50 PM	A72400
Chromium	ND	0.030		mg/L	5	10/5/2020 6:03:59 PM	A72400
Cobalt	ND	0.030		mg/L	5	10/5/2020 6:03:59 PM	A72400
Copper	ND	0.030		mg/L	5	10/5/2020 6:03:59 PM	A72400
Iron	ND	0.10		mg/L	5	10/5/2020 6:03:59 PM	A72400
Magnesium	780	50		mg/L	50	10/5/2020 6:05:50 PM	A72400
Manganese	0.013	0.010		mg/L	5	10/5/2020 6:03:59 PM	A72400

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order 2009B71

Date Reported: 10/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 9/17/2020 2:25:00 PM

**Lab ID:** 2009B71-003

**Matrix:** AQUEOUS

**Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>ags</b>
Molybdenum	ND	0.040		mg/L	5	10/5/2020 6:03:59 PM	A72400
Nickel	ND	0.050		mg/L	5	10/5/2020 6:03:59 PM	A72400
Potassium	9.7	5.0		mg/L	5	10/5/2020 6:03:59 PM	A72400
Silver	ND	0.025		mg/L	5	10/5/2020 6:03:59 PM	A72400
Sodium	3300	50		mg/L	50	10/5/2020 6:05:50 PM	A72400
Zinc	ND	0.050		mg/L	5	10/5/2020 6:03:59 PM	A72400
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	9/25/2020 2:07:42 AM	A72134
Toluene	ND	1.0		µg/L	1	9/25/2020 2:07:42 AM	A72134
Ethylbenzene	ND	1.0		µg/L	1	9/25/2020 2:07:42 AM	A72134
Naphthalene	ND	2.0		µg/L	1	9/25/2020 2:07:42 AM	A72134
1-Methylnaphthalene	ND	4.0		µg/L	1	9/25/2020 2:07:42 AM	A72134
2-Methylnaphthalene	ND	4.0		µg/L	1	9/25/2020 2:07:42 AM	A72134
Xylenes, Total	ND	1.5		µg/L	1	9/25/2020 2:07:42 AM	A72134
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	1	9/25/2020 2:07:42 AM	A72134
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	9/25/2020 2:07:42 AM	A72134
Surr: Dibromofluoromethane	111	70-130		%Rec	1	9/25/2020 2:07:42 AM	A72134
Surr: Toluene-d8	94.1	70-130		%Rec	1	9/25/2020 2:07:42 AM	A72134

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

**Analytical Report**

Lab Order 2009B71

Date Reported: 10/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 9/17/2020 2:55:00 PM

**Lab ID:** 2009B71-004

**Matrix:** AQUEOUS

**Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA 200.8: DISSOLVED METALS</b>							Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	9/30/2020 4:18:40 PM	A72310
Arsenic	ND	0.010		mg/L	10	9/30/2020 4:18:40 PM	A72310
Lead	ND	0.0050		mg/L	10	9/30/2020 4:18:40 PM	A72310
Selenium	ND	0.010		mg/L	10	9/30/2020 4:18:40 PM	A72310
Thallium	ND	0.0050		mg/L	10	9/30/2020 5:36:49 PM	A72310
Uranium	0.0064	0.0050		mg/L	10	9/30/2020 4:18:40 PM	A72310
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>JMT</b>
Fluoride	0.64	0.50		mg/L	5	10/1/2020 3:06:58 PM	R72353
Chloride	1300	50		mg/L	100	10/3/2020 1:17:24 PM	R72383
Bromide	0.86	0.50		mg/L	5	10/1/2020 3:06:58 PM	R72353
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	10/1/2020 3:06:58 PM	R72353
Sulfate	840	50		mg/L	100	10/3/2020 1:17:24 PM	R72383
Nitrate+Nitrite as N	ND	1.0		mg/L	5	10/2/2020 1:27:24 AM	R72353
<b>SM2510B: SPECIFIC CONDUCTANCE</b>							Analyst: <b>JRR</b>
Conductivity	6600	50		µmhos/c	5	9/25/2020 8:28:16 AM	R72166
<b>SM2320B: ALKALINITY</b>							Analyst: <b>JRR</b>
Bicarbonate (As CaCO3)	149.9	20.00		mg/L Ca	1	9/24/2020 11:54:54 AM	R72131
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	9/24/2020 11:54:54 AM	R72131
Total Alkalinity (as CaCO3)	149.9	20.00		mg/L Ca	1	9/24/2020 11:54:54 AM	R72131
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>							Analyst: <b>KS</b>
Total Dissolved Solids	4520	40.0	*D	mg/L	1	9/22/2020 1:37:00 PM	55292
<b>SM4500-H+B / 9040C: PH</b>							Analyst: <b>JRR</b>
pH	7.55		H	pH units	1	9/24/2020 11:54:54 AM	R72131
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>ags</b>
Aluminum	ND	0.10		mg/L	5	10/5/2020 6:07:40 PM	A72400
Barium	0.016	0.010		mg/L	5	10/5/2020 6:07:40 PM	A72400
Beryllium	ND	0.010		mg/L	5	10/5/2020 6:07:40 PM	A72400
Boron	ND	0.20		mg/L	5	10/5/2020 6:07:40 PM	A72400
Cadmium	ND	0.010		mg/L	5	10/5/2020 6:07:40 PM	A72400
Calcium	590	50		mg/L	50	10/5/2020 6:09:31 PM	A72400
Chromium	ND	0.030		mg/L	5	10/5/2020 6:07:40 PM	A72400
Cobalt	ND	0.030		mg/L	5	10/5/2020 6:07:40 PM	A72400
Copper	ND	0.030		mg/L	5	10/5/2020 6:07:40 PM	A72400
Iron	ND	0.10		mg/L	5	10/5/2020 6:07:40 PM	A72400
Magnesium	230	5.0		mg/L	5	10/5/2020 6:07:40 PM	A72400
Manganese	ND	0.010		mg/L	5	10/5/2020 6:07:40 PM	A72400

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix

B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order 2009B71

Date Reported: 10/15/2020

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 9/17/2020 2:55:00 PM

**Lab ID:** 2009B71-004

**Matrix:** AQUEOUS

**Received Date:** 9/19/2020 7:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 200.7: DISSOLVED METALS</b>							Analyst: <b>ags</b>
Molybdenum	ND	0.040		mg/L	5	10/5/2020 6:07:40 PM	A72400
Nickel	ND	0.050		mg/L	5	10/5/2020 6:07:40 PM	A72400
Potassium	ND	5.0		mg/L	5	10/5/2020 6:07:40 PM	A72400
Silver	ND	0.025		mg/L	5	10/5/2020 6:07:40 PM	A72400
Sodium	320	5.0		mg/L	5	10/5/2020 6:07:40 PM	A72400
Zinc	ND	0.050		mg/L	5	10/5/2020 6:07:40 PM	A72400
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>DJF</b>
Benzene	ND	1.0		µg/L	1	9/25/2020 2:36:13 AM	A72134
Toluene	ND	1.0		µg/L	1	9/25/2020 2:36:13 AM	A72134
Ethylbenzene	ND	1.0		µg/L	1	9/25/2020 2:36:13 AM	A72134
Naphthalene	ND	2.0		µg/L	1	9/25/2020 2:36:13 AM	A72134
1-Methylnaphthalene	ND	4.0		µg/L	1	9/25/2020 2:36:13 AM	A72134
2-Methylnaphthalene	ND	4.0		µg/L	1	9/25/2020 2:36:13 AM	A72134
Xylenes, Total	ND	1.5		µg/L	1	9/25/2020 2:36:13 AM	A72134
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%Rec	1	9/25/2020 2:36:13 AM	A72134
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	9/25/2020 2:36:13 AM	A72134
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/25/2020 2:36:13 AM	A72134
Surr: Toluene-d8	96.0	70-130		%Rec	1	9/25/2020 2:36:13 AM	A72134

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3 2009B71-001		MW-1 2009B71-002		MW-4 2009B71-003		MW-2 2009B71-004	
	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	6800	295.78	3600	156.59	3300	143.54	320	13.92
Potassium	20	0.51	7.3	0.19	9.7	0.25		
Calcium	1400	69.86	1400	69.86	2300	114.77	590	29.44
Magnesium	540	44.44	530	43.62	780	64.20	230	18.93
<b>Total Cations</b>		<b>410.60</b>		<b>270.26</b>		<b>322.76</b>		<b>62.29</b>
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2100	43.72	1200	24.98	1000	20.82	840	17.49
Chloride	13000	366.71	7900	222.85	10000	282.09	1300	36.67
Bicarbonate (CaCO3)	289.7	5.79	174.3	3.48	189.9	3.79	149.9	3.00
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)								
Fluoride							0.64	0.03
Bromide	5.9	0.07	3.8	0.05	4.6	0.06	0.86	0.01
<b>Total Anions</b>		<b>416.30</b>		<b>251.36</b>		<b>306.76</b>		<b>57.20</b>
Elect. Cond. (µMhos/cm)	45000		31000		35000		6600	
<b>CATION/ANION RATIO</b>		<b>0.99</b>		<b>1.08</b>		<b>1.05</b>		<b>1.09</b>
% Difference		<b>1</b>		<b>4</b>		<b>3</b>		<b>4</b>
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	25500		19000		22500		4520	
TDS (calculated)	24040		14746		17508		3371	
Ratio meas TDS:calc TDS		<b>1.1</b>		<b>1.3</b>		<b>1.3</b>		<b>1.3</b>
Ratio Meas. TDS:EC		<b>0.57</b>		<b>0.61</b>		<b>0.64</b>		<b>0.68</b>
Ratio Calc. TDS:EC		<b>0.53</b>		<b>0.48</b>		<b>0.50</b>		<b>0.51</b>
Ratio of anion sum:EC		<b>0.9</b>		<b>0.8</b>		<b>0.9</b>		<b>0.9</b>
Ratio of cation sum:EC		<b>0.9</b>		<b>0.9</b>		<b>0.9</b>		<b>0.9</b>

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB-A</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>
Client ID: <b>PBW</b>	Batch ID: <b>A72400</b>	RunNo: <b>72400</b>
Prep Date:	Analysis Date: <b>10/5/2020</b>	SeqNo: <b>2539624</b> Units: <b>mg/L</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID: <b>LCS-A</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>
Client ID: <b>LCSW</b>	Batch ID: <b>A72400</b>	RunNo: <b>72400</b>
Prep Date:	Analysis Date: <b>10/5/2020</b>	SeqNo: <b>2539626</b> Units: <b>mg/L</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.48	0.020	0.5000	0	96.7	85	115			
Barium	0.47	0.0020	0.5000	0	94.8	85	115			
Beryllium	0.49	0.0020	0.5000	0	98.1	85	115			
Boron	0.49	0.040	0.5000	0	97.1	85	115			
Cadmium	0.47	0.0020	0.5000	0	93.9	85	115			
Calcium	50	1.0	50.00	0	99.6	85	115			
Chromium	0.46	0.0060	0.5000	0	92.6	85	115			
Cobalt	0.45	0.0060	0.5000	0	90.9	85	115			
Copper	0.45	0.0060	0.5000	0	90.9	85	115			
Iron	0.47	0.020	0.5000	0	94.3	85	115			
Magnesium	50	1.0	50.00	0	100	85	115			
Manganese	0.46	0.0020	0.5000	0	92.8	85	115			
Molybdenum	0.50	0.0080	0.5000	0	99.7	85	115			
Nickel	0.45	0.010	0.5000	0	89.6	85	115			
Potassium	49	1.0	50.00	0	98.6	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS-A</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A72400</b>		RunNo: <b>72400</b>							
Prep Date:	Analysis Date: <b>10/5/2020</b>		SeqNo: <b>2539626</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.090	0.0050	0.1000	0	89.6	85	115			
Sodium	50	1.0	50.00	0	99.9	85	115			
Zinc	0.47	0.010	0.5000	0	94.2	85	115			

Sample ID: <b>MB-B</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>B72487</b>		RunNo: <b>72487</b>							
Prep Date:	Analysis Date: <b>10/7/2020</b>		SeqNo: <b>2543978</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID: <b>LCS-B</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>B72487</b>		RunNo: <b>72487</b>							
Prep Date:	Analysis Date: <b>10/7/2020</b>		SeqNo: <b>2543980</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.48	0.020	0.5000	0	95.8	85	115			
Barium	0.49	0.0020	0.5000	0	98.5	85	115			
Beryllium	0.48	0.0020	0.5000	0	96.8	85	115			
Boron	0.51	0.040	0.5000	0	101	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.3	85	115			
Chromium	0.46	0.0060	0.5000	0	92.5	85	115			
Cobalt	0.47	0.0060	0.5000	0	94.3	85	115			
Copper	0.47	0.0060	0.5000	0	93.1	85	115			
Iron	0.48	0.020	0.5000	0	96.9	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS-B</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>B72487</b>		RunNo: <b>72487</b>							
Prep Date:	Analysis Date: <b>10/7/2020</b>		SeqNo: <b>2543980</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Magnesium	50	1.0	50.00	0	101	85	115			
Manganese	0.48	0.0020	0.5000	0	96.3	85	115			
Molybdenum	0.50	0.0080	0.5000	0	101	85	115			
Nickel	0.46	0.010	0.5000	0	91.4	85	115			
Silver	0.094	0.0050	0.1000	0	94.2	85	115			
Sodium	50	1.0	50.00	0	100	85	115			
Zinc	0.50	0.010	0.5000	0	100	85	115			

Sample ID: <b>LCS-B</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>B72603</b>		RunNo: <b>72603</b>							
Prep Date:	Analysis Date: <b>10/9/2020</b>		SeqNo: <b>2549161</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	0.50	0.020	0.5000	0	99.2	85	115			

Sample ID: <b>MB-B</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>B72603</b>		RunNo: <b>72603</b>							
Prep Date:	Analysis Date: <b>10/9/2020</b>		SeqNo: <b>2549208</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Iron	ND	0.020								

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| PQL Practical Quantitative Limit                        | RL Reporting Limit                                |
| S % Recovery outside of range due to dilution or matrix |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A72310</b>	RunNo: <b>72310</b>								
Prep Date:	Analysis Date: <b>9/30/2020</b>	SeqNo: <b>2535723</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00050								
Uranium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A72310</b>	RunNo: <b>72310</b>								
Prep Date:	Analysis Date: <b>9/30/2020</b>	SeqNo: <b>2535725</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.022	0.0010	0.02500	0	88.0	85	115			
Arsenic	0.024	0.0010	0.02500	0	95.7	85	115			
Lead	0.011	0.00050	0.01250	0	91.2	85	115			
Selenium	0.023	0.0010	0.02500	0	91.9	85	115			
Thallium	0.012	0.00050	0.01250	0	92.4	85	115			
Uranium	0.011	0.00050	0.01250	0	88.0	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R72353</b>	RunNo: <b>72353</b>								
Prep Date:	Analysis Date: <b>10/1/2020</b>	SeqNo: <b>2537739</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R72353</b>	RunNo: <b>72353</b>								
Prep Date:	Analysis Date: <b>10/1/2020</b>	SeqNo: <b>2537740</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.48	0.10	0.5000	0	95.8	90	110			
Bromide	2.4	0.10	2.500	0	94.9	90	110			
Phosphorus, Orthophosphate (As P)	4.5	0.50	5.000	0	90.8	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	95.0	90	110			

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R72383</b>	RunNo: <b>72383</b>								
Prep Date:	Analysis Date: <b>10/3/2020</b>	SeqNo: <b>2539043</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R72383</b>	RunNo: <b>72383</b>								
Prep Date:	Analysis Date: <b>10/3/2020</b>	SeqNo: <b>2539044</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	91.5	90	110			
Sulfate	9.2	0.50	10.00	0	92.5	90	110			
Nitrate+Nitrite as N	3.3	0.20	3.500	0	94.3	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>mb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>PBW</b>	Batch ID: <b>A72134</b>		RunNo: <b>72134</b>							
Prep Date:	Analysis Date: <b>9/24/2020</b>		SeqNo: <b>2528415</b>				Units: <b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.7		10.00		87.1	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.5		10.00		95.0	70	130			

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260: Volatiles Short List</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A72134</b>		RunNo: <b>72134</b>							
Prep Date:	Analysis Date: <b>9/24/2020</b>		SeqNo: <b>2528416</b>				Units: <b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	96.8	70	130			
Toluene	19	1.0	20.00	0	95.7	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		93.8	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		103	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.5		10.00		95.2	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>Ics-1 99.2uS eC</b>	SampType: <b>Ics</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R72166</b>	RunNo: <b>72166</b>								
Prep Date:	Analysis Date: <b>9/25/2020</b>	SeqNo: <b>2529530</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	98	10	99.20	0	98.8	85	115			

**Qualifiers:**

- |   |   |
|---|---|
| * Value exceeds Maximum Contaminant Level.              | B Analyte detected in the associated Method Blank |
| D Sample Diluted Due to Matrix                          | E Value above quantitation range                  |
| H Holding times for preparation or analysis exceeded    | J Analyte detected below quantitation limits      |
| ND Not Detected at the Reporting Limit                  | P Sample pH Not In Range                          |
| PQL Practical Quantitative Limit                        | RL Reporting Limit                                |
| S % Recovery outside of range due to dilution or matrix |   |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>mb-1 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R72131</b>	RunNo: <b>72131</b>								
Prep Date:	Analysis Date: <b>9/24/2020</b>	SeqNo: <b>2527980</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>lcs-1 alk</b>	SampType: <b>lcs</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R72131</b>	RunNo: <b>72131</b>								
Prep Date:	Analysis Date: <b>9/24/2020</b>	SeqNo: <b>2527981</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	76.44	20.00	80.00	0	95.6	90	110			

Sample ID: <b>mb-2 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R72131</b>	RunNo: <b>72131</b>								
Prep Date:	Analysis Date: <b>9/24/2020</b>	SeqNo: <b>2528003</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>lcs-2 alk</b>	SampType: <b>lcs</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R72131</b>	RunNo: <b>72131</b>								
Prep Date:	Analysis Date: <b>9/24/2020</b>	SeqNo: <b>2528004</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.80	20.00	80.00	0	97.3	90	110			

Sample ID: <b>mb-3 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R72131</b>	RunNo: <b>72131</b>								
Prep Date:	Analysis Date: <b>9/24/2020</b>	SeqNo: <b>2528026</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>lcs-3 alk</b>	SampType: <b>lcs</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R72131</b>	RunNo: <b>72131</b>								
Prep Date:	Analysis Date: <b>9/24/2020</b>	SeqNo: <b>2528027</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.52	20.00	80.00	0	96.9	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2009B71

20-Aug-21

**Client:** Safety & Environmental Solutions

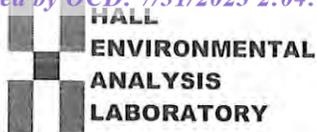
**Project:** Inex Pit

Sample ID: <b>MB-55292</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>55292</b>	RunNo: <b>72048</b>								
Prep Date: <b>9/20/2020</b>	Analysis Date: <b>9/22/2020</b>	SeqNo: <b>2523364</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-55292</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>55292</b>	RunNo: <b>72048</b>								
Prep Date: <b>9/20/2020</b>	Analysis Date: <b>9/22/2020</b>	SeqNo: <b>2523365</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

### Sample Log-In Check List

Client Name: **Safety & Environmental Solutions**      Work Order Number: **2009B71**      RcptNo: 1

Received By: **Emily Mocho**      9/19/2020 7:30:00 AM

Completed By: **Emily Mocho**      9/19/2020 9:28:38 AM

Reviewed By: *jr 9/19/20*

#### Chain of Custody

- 1. Is Chain of Custody complete?      Yes       No       Not Present
- 2. How was the sample delivered?      Courier

#### Log In

- 3. Was an attempt made to cool the samples?      Yes       No       NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C      Yes       No       NA
- 5. Sample(s) in proper container(s)?      Yes       No
- 6. Sufficient sample volume for indicated test(s)?      Yes       No
- 7. Are samples (except VOA and ONG) properly preserved?      Yes       No
- 8. Was preservative added to bottles?      Yes       No       NA
- 9. Received at least 1 vial with headspace <1/4" for AQ VOA?      Yes       No       NA
- 10. Were any sample containers received broken?      Yes       No
- 11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody)      Yes       No
- 12. Are matrices correctly identified on Chain of Custody?      Yes       No
- 13. Is it clear what analyses were requested?      Yes       No
- 14. Were all holding times able to be met?  
(If no, notify customer for authorization.)      Yes       No

# of preserved bottles checked for pH: *8*  
(<2 or >12 unless noted)

Adjusted? *no*

Checked by: *cmc 9/19/20*

#### Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order?      Yes       No       NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

16. Additional remarks:

#### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.0	Good	Not Present			





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

September 13, 2021

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL:  
FAX

RE: Inex Pit

OrderNo.: 2108D33

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/25/2021 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2108D33**

Date Reported: **9/13/2021**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 8/23/2021 9:30:00 AM

**Lab ID:** 2108D33-001

**Matrix:** AQUEOUS

**Received Date:** 8/25/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LRN</b>
Fluoride	ND	0.50		mg/L	5	8/26/2021 11:31:11 PM
Chloride	13000	1000	*	mg/L	2000	8/30/2021 6:28:37 PM
Bromide	4.0	0.50		mg/L	5	8/26/2021 11:31:11 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2021 11:31:11 PM
Sulfate	2300	1000	*	mg/L	2000	8/30/2021 6:28:37 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	8/31/2021 4:09:21 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Aluminum	ND	0.10		mg/L	5	8/25/2021 11:32:34 AM
Barium	0.026	0.010		mg/L	5	8/25/2021 11:32:34 AM
Beryllium	ND	0.010		mg/L	5	8/25/2021 11:32:34 AM
Boron	0.46	0.20		mg/L	5	8/25/2021 11:32:34 AM
Cadmium	ND	0.010		mg/L	5	8/25/2021 11:32:34 AM
Calcium	1200	20		mg/L	20	8/25/2021 12:23:45 PM
Chromium	ND	0.030		mg/L	5	8/25/2021 11:32:34 AM
Cobalt	ND	0.030		mg/L	5	8/25/2021 11:32:34 AM
Copper	ND	0.030		mg/L	5	8/25/2021 11:32:34 AM
Iron	0.047	0.020		mg/L	1	8/25/2021 11:28:02 AM
Magnesium	460	20		mg/L	20	8/25/2021 12:23:45 PM
Manganese	0.14	0.010	*	mg/L	5	8/25/2021 11:32:34 AM
Molybdenum	ND	0.040		mg/L	5	8/25/2021 11:32:34 AM
Nickel	ND	0.050		mg/L	5	8/25/2021 11:32:34 AM
Potassium	26	1.0		mg/L	1	8/25/2021 11:28:02 AM
Silver	ND	0.025		mg/L	5	8/25/2021 11:32:34 AM
Sodium	7600	200		mg/L	200	8/25/2021 12:25:24 PM
Zinc	0.11	0.050		mg/L	5	8/25/2021 11:32:34 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	9/8/2021 11:09:13 AM
Arsenic	ND	0.010		mg/L	10	9/8/2021 11:09:13 AM
Lead	ND	0.0050		mg/L	10	9/8/2021 11:09:13 AM
Selenium	0.019	0.010		mg/L	10	9/8/2021 11:09:13 AM
Thallium	ND	0.0025		mg/L	10	9/8/2021 11:09:13 AM
Uranium	0.012	0.0050		mg/L	10	9/8/2021 11:09:13 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
Benzene	ND	1.0		µg/L	1	8/26/2021 6:12:00 AM
Toluene	ND	1.0		µg/L	1	8/26/2021 6:12:00 AM
Ethylbenzene	ND	1.0		µg/L	1	8/26/2021 6:12:00 AM
Naphthalene	ND	2.0		µg/L	1	8/26/2021 6:12:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2021 6:12:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

**Analytical Report**

Lab Order **2108D33**

Date Reported: **9/13/2021**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 8/23/2021 9:30:00 AM

**Lab ID:** 2108D33-001

**Matrix:** AQUEOUS

**Received Date:** 8/25/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2021 6:12:00 AM
Xylenes, Total	ND	1.5		µg/L	1	8/26/2021 6:12:00 AM
Surr: 1,2-Dichloroethane-d4	81.4	70-130		%Rec	1	8/26/2021 6:12:00 AM
Surr: 4-Bromofluorobenzene	99.3	70-130		%Rec	1	8/26/2021 6:12:00 AM
Surr: Dibromofluoromethane	82.7	70-130		%Rec	1	8/26/2021 6:12:00 AM
Surr: Toluene-d8	97.4	70-130		%Rec	1	8/26/2021 6:12:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>CAS</b>
Conductivity	51000	100		µmhos/c	10	8/30/2021 3:29:04 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>CAS</b>
Bicarbonate (As CaCO3)	294.2	20.00		mg/L Ca	1	8/27/2021 12:05:14 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/27/2021 12:05:14 PM
Total Alkalinity (as CaCO3)	294.2	20.00		mg/L Ca	1	8/27/2021 12:05:14 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>JMT</b>
Total Dissolved Solids	27100	40.0	*D	mg/L	1	8/27/2021 10:36:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2108D33

Date Reported: 9/13/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-1

Project: Inex Pit

Collection Date: 8/23/2021 10:40:00 AM

Lab ID: 2108D33-002

Matrix: AQUEOUS

Received Date: 8/25/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LRN</b>
Fluoride	ND	0.50		mg/L	5	8/26/2021 11:55:54 PM
Chloride	8400	500	*	mg/L	1000	8/30/2021 6:40:58 PM
Bromide	2.0	0.50		mg/L	5	8/26/2021 11:55:54 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/26/2021 11:55:54 PM
Sulfate	1200	500	*	mg/L	1000	8/30/2021 6:40:58 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	8/31/2021 4:21:42 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Aluminum	ND	0.10		mg/L	5	8/25/2021 11:39:08 AM
Barium	0.028	0.010		mg/L	5	8/25/2021 11:39:08 AM
Beryllium	ND	0.010		mg/L	5	8/25/2021 11:39:08 AM
Boron	ND	0.20		mg/L	5	8/25/2021 11:39:08 AM
Cadmium	ND	0.010		mg/L	5	8/25/2021 11:39:08 AM
Calcium	1400	50		mg/L	50	8/25/2021 12:31:50 PM
Chromium	ND	0.030		mg/L	5	8/25/2021 11:39:08 AM
Cobalt	ND	0.030		mg/L	5	8/25/2021 11:39:08 AM
Copper	ND	0.030		mg/L	5	8/25/2021 11:39:08 AM
Iron	0.031	0.020		mg/L	1	8/25/2021 11:37:29 AM
Magnesium	490	5.0		mg/L	5	8/25/2021 11:39:08 AM
Manganese	ND	0.010		mg/L	5	8/25/2021 11:39:08 AM
Molybdenum	ND	0.040		mg/L	5	8/25/2021 11:39:08 AM
Nickel	ND	0.050		mg/L	5	8/25/2021 11:39:08 AM
Potassium	9.3	1.0		mg/L	1	8/25/2021 11:37:29 AM
Silver	ND	0.025		mg/L	5	8/25/2021 11:39:08 AM
Sodium	3800	50		mg/L	50	8/25/2021 12:31:50 PM
Zinc	ND	0.050		mg/L	5	8/25/2021 11:39:08 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	9/8/2021 11:15:03 AM
Arsenic	ND	0.010		mg/L	10	9/8/2021 11:15:03 AM
Lead	ND	0.0050		mg/L	10	9/8/2021 11:15:03 AM
Selenium	ND	0.010		mg/L	10	9/8/2021 11:15:03 AM
Thallium	ND	0.0025		mg/L	10	9/8/2021 11:15:03 AM
Uranium	0.011	0.0050		mg/L	10	9/8/2021 11:15:03 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
Benzene	ND	1.0		µg/L	1	8/26/2021 6:36:00 AM
Toluene	ND	1.0		µg/L	1	8/26/2021 6:36:00 AM
Ethylbenzene	ND	1.0		µg/L	1	8/26/2021 6:36:00 AM
Naphthalene	ND	2.0		µg/L	1	8/26/2021 6:36:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2021 6:36:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

**Analytical Report**

Lab Order **2108D33**

Date Reported: **9/13/2021**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 8/23/2021 10:40:00 AM

**Lab ID:** 2108D33-002

**Matrix:** AQUEOUS

**Received Date:** 8/25/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2021 6:36:00 AM
Xylenes, Total	ND	1.5		µg/L	1	8/26/2021 6:36:00 AM
Surr: 1,2-Dichloroethane-d4	82.7	70-130		%Rec	1	8/26/2021 6:36:00 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	8/26/2021 6:36:00 AM
Surr: Dibromofluoromethane	81.3	70-130		%Rec	1	8/26/2021 6:36:00 AM
Surr: Toluene-d8	97.4	70-130		%Rec	1	8/26/2021 6:36:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>CAS</b>
Conductivity	36000	100		µmhos/c	10	8/30/2021 3:32:01 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>CAS</b>
Bicarbonate (As CaCO3)	170.1	20.00		mg/L Ca	1	8/27/2021 12:21:16 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/27/2021 12:21:16 PM
Total Alkalinity (as CaCO3)	170.1	20.00		mg/L Ca	1	8/27/2021 12:21:16 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>JMT</b>
Total Dissolved Solids	18100	40.0	*D	mg/L	1	8/27/2021 10:36:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

Analytical Report

Lab Order 2108D33

Date Reported: 9/13/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-4

Project: Inex Pit

Collection Date: 8/23/2021 11:20:00 AM

Lab ID: 2108D33-003

Matrix: AQUEOUS

Received Date: 8/25/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LRN</b>
Fluoride	ND	0.50		mg/L	5	8/27/2021 12:20:35 AM
Chloride	10000	500	*	mg/L	1000	8/30/2021 6:53:20 PM
Bromide	2.2	0.50		mg/L	5	8/27/2021 12:20:35 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2021 12:20:35 AM
Sulfate	1000	500	*	mg/L	1000	8/30/2021 6:53:20 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	8/31/2021 4:34:03 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Aluminum	ND	0.10		mg/L	5	8/25/2021 11:42:25 AM
Barium	0.040	0.010		mg/L	5	8/25/2021 11:42:25 AM
Beryllium	ND	0.010		mg/L	5	8/25/2021 11:42:25 AM
Boron	ND	0.20		mg/L	5	8/25/2021 11:42:25 AM
Cadmium	ND	0.010		mg/L	5	8/25/2021 11:42:25 AM
Calcium	2200	50		mg/L	50	8/25/2021 12:33:29 PM
Chromium	ND	0.030		mg/L	5	8/25/2021 11:42:25 AM
Cobalt	ND	0.030		mg/L	5	8/25/2021 11:42:25 AM
Copper	ND	0.030		mg/L	5	8/25/2021 11:42:25 AM
Iron	0.035	0.020		mg/L	1	8/25/2021 11:40:45 AM
Magnesium	720	50		mg/L	50	8/25/2021 12:33:29 PM
Manganese	0.011	0.010		mg/L	5	8/25/2021 11:42:25 AM
Molybdenum	ND	0.040		mg/L	5	8/25/2021 11:42:25 AM
Nickel	ND	0.050		mg/L	5	8/25/2021 11:42:25 AM
Potassium	11	1.0		mg/L	1	8/25/2021 11:40:45 AM
Silver	ND	0.025		mg/L	5	8/25/2021 11:42:25 AM
Sodium	3300	50		mg/L	50	8/25/2021 12:33:29 PM
Zinc	0.051	0.050		mg/L	5	8/25/2021 11:42:25 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	9/8/2021 11:30:28 AM
Arsenic	ND	0.010		mg/L	10	9/8/2021 11:30:28 AM
Lead	ND	0.0050		mg/L	10	9/8/2021 11:30:28 AM
Selenium	ND	0.010		mg/L	10	9/8/2021 11:30:28 AM
Thallium	ND	0.0025		mg/L	10	9/8/2021 11:30:28 AM
Uranium	0.015	0.0050		mg/L	10	9/8/2021 11:30:28 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
Benzene	ND	1.0		µg/L	1	8/26/2021 6:59:00 AM
Toluene	ND	1.0		µg/L	1	8/26/2021 6:59:00 AM
Ethylbenzene	ND	1.0		µg/L	1	8/26/2021 6:59:00 AM
Naphthalene	ND	2.0		µg/L	1	8/26/2021 6:59:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2021 6:59:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

**Analytical Report**

Lab Order **2108D33**

Date Reported: **9/13/2021**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 8/23/2021 11:20:00 AM

**Lab ID:** 2108D33-003

**Matrix:** AQUEOUS

**Received Date:** 8/25/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2021 6:59:00 AM
Xylenes, Total	ND	1.5		µg/L	1	8/26/2021 6:59:00 AM
Surr: 1,2-Dichloroethane-d4	82.0	70-130		%Rec	1	8/26/2021 6:59:00 AM
Surr: 4-Bromofluorobenzene	97.4	70-130		%Rec	1	8/26/2021 6:59:00 AM
Surr: Dibromofluoromethane	81.1	70-130		%Rec	1	8/26/2021 6:59:00 AM
Surr: Toluene-d8	99.3	70-130		%Rec	1	8/26/2021 6:59:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>CAS</b>
Conductivity	37000	100		µmhos/c	10	8/30/2021 3:34:59 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>CAS</b>
Bicarbonate (As CaCO3)	191.9	20.00		mg/L Ca	1	8/27/2021 12:32:29 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/27/2021 12:32:29 PM
Total Alkalinity (as CaCO3)	191.9	20.00		mg/L Ca	1	8/27/2021 12:32:29 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>JMT</b>
Total Dissolved Solids	20100	40.0	*D	mg/L	1	8/27/2021 10:36:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- |     |   |    |   |
|-----|---|----|---|
| *   | Value exceeds Maximum Contaminant Level.              | B  | Analyte detected in the associated Method Blank |
| D   | Sample Diluted Due to Matrix                          | E  | Value above quantitation range                  |
| H   | Holding times for preparation or analysis exceeded    | J  | Analyte detected below quantitation limits      |
| ND  | Not Detected at the Reporting Limit                   | P  | Sample pH Not In Range                          |
| PQL | Practical Quantitative Limit                          | RL | Reporting Limit                                 |
| S   | % Recovery outside of range due to dilution or matrix |    |   |

Analytical Report

Lab Order 2108D33

Date Reported: 9/13/2021

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-2

Project: Inex Pit

Collection Date: 8/23/2021 12:10:00 PM

Lab ID: 2108D33-004

Matrix: AQUEOUS

Received Date: 8/25/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LRN</b>
Fluoride	ND	0.50		mg/L	5	8/27/2021 1:10:01 AM
Chloride	1500	50	*	mg/L	100	8/30/2021 7:05:41 PM
Bromide	0.92	0.50		mg/L	5	8/27/2021 1:10:01 AM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	8/27/2021 1:10:01 AM
Sulfate	880	50	*	mg/L	100	8/30/2021 7:05:41 PM
Nitrate+Nitrite as N	ND	2.0		mg/L	10	8/31/2021 4:46:24 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Aluminum	ND	0.020		mg/L	1	8/25/2021 11:48:54 AM
Barium	0.019	0.0020		mg/L	1	8/25/2021 11:48:54 AM
Beryllium	ND	0.0020		mg/L	1	8/25/2021 11:48:54 AM
Boron	0.090	0.040		mg/L	1	8/25/2021 11:48:54 AM
Cadmium	ND	0.0020		mg/L	1	8/25/2021 11:48:54 AM
Calcium	620	10		mg/L	10	8/25/2021 12:35:06 PM
Chromium	ND	0.0060		mg/L	1	8/25/2021 11:48:54 AM
Cobalt	ND	0.0060		mg/L	1	8/25/2021 11:48:54 AM
Copper	ND	0.0060		mg/L	1	8/25/2021 11:48:54 AM
Iron	0.025	0.020		mg/L	1	8/25/2021 11:48:54 AM
Magnesium	230	5.0		mg/L	5	8/25/2021 11:50:36 AM
Manganese	0.0047	0.0020		mg/L	1	8/25/2021 11:48:54 AM
Molybdenum	ND	0.0080		mg/L	1	8/25/2021 11:48:54 AM
Nickel	ND	0.010		mg/L	1	8/25/2021 11:48:54 AM
Potassium	3.1	1.0		mg/L	1	8/25/2021 11:48:54 AM
Silver	ND	0.0050		mg/L	1	8/25/2021 11:48:54 AM
Sodium	360	5.0		mg/L	5	8/25/2021 11:50:36 AM
Zinc	0.058	0.010		mg/L	1	8/25/2021 11:48:54 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	9/8/2021 11:35:13 AM
Arsenic	ND	0.010		mg/L	10	9/8/2021 11:35:13 AM
Lead	ND	0.0050		mg/L	10	9/8/2021 11:35:13 AM
Selenium	ND	0.010		mg/L	10	9/8/2021 11:35:13 AM
Thallium	ND	0.0025		mg/L	10	9/8/2021 11:35:13 AM
Uranium	0.0072	0.0050		mg/L	10	9/8/2021 11:35:13 AM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
Benzene	ND	1.0		µg/L	1	8/26/2021 7:22:00 AM
Toluene	ND	1.0		µg/L	1	8/26/2021 7:22:00 AM
Ethylbenzene	ND	1.0		µg/L	1	8/26/2021 7:22:00 AM
Naphthalene	ND	2.0		µg/L	1	8/26/2021 7:22:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2021 7:22:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

**Analytical Report**

Lab Order **2108D33**

Date Reported: **9/13/2021**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 8/23/2021 12:10:00 PM

**Lab ID:** 2108D33-004

**Matrix:** AQUEOUS

**Received Date:** 8/25/2021 7:10:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	8/26/2021 7:22:00 AM
Xylenes, Total	ND	1.5		µg/L	1	8/26/2021 7:22:00 AM
Surr: 1,2-Dichloroethane-d4	83.5	70-130		%Rec	1	8/26/2021 7:22:00 AM
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	8/26/2021 7:22:00 AM
Surr: Dibromofluoromethane	82.1	70-130		%Rec	1	8/26/2021 7:22:00 AM
Surr: Toluene-d8	97.9	70-130		%Rec	1	8/26/2021 7:22:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>CAS</b>
Conductivity	6200	10		µmhos/c	1	8/30/2021 3:37:59 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>CAS</b>
Bicarbonate (As CaCO3)	147.6	20.00		mg/L Ca	1	8/27/2021 12:45:23 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/27/2021 12:45:23 PM
Total Alkalinity (as CaCO3)	147.6	20.00		mg/L Ca	1	8/27/2021 12:45:23 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>JMT</b>
Total Dissolved Solids	4510	20.0	*	mg/L	1	8/27/2021 10:36:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3		MW-1		MW-4		MW-2	
	2108D33-001	2108D33-002	2108D33-002	2108D33-003	2108D33-003	2108D33-004	2108D33-004	2108D33-004
<b>CATIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	7600	330.58	3800	165.29	3300	143.54	360	15.66
Potassium	26	0.66	9.3	0.24	11	0.28	3.1	0.08
Calcium	1200	59.88	1400	69.86	2200	109.78	620	30.94
Magnesium	460	37.86	490	40.33	720	59.26	230	18.93
<b>Total Cations</b>		428.98		275.72		312.86		65.61
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2300	47.89	1200	24.98	1000	20.82	800	16.66
Chloride	13000	366.71	8400	236.95	10000	282.09	1500	42.31
Bicarbonate (CaCO3)	294.2	5.88	170.1	3.40	191.9	3.83	147.6	2.95
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)								
Fluoride								
Bromide	4.0	0.05	2.0	0.03	-	0.03	0.92	0.01
<b>Total Anions</b>		420.53		265.36		306.77		61.93
Elect. Cond. (µMhos/cm)	51000		36000		37000		6200	
<b>CATION/ANION RATIO</b>		1.02		1.04		1.02		1.06
% Difference		1		2		1		3
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	27100		18100		20100		4510	
TDS (calculated)	24767		15403		17348		3603	
Ratio meas TDS:calc TDS		1.1		1.2		1.2		1.3
Ratio Meas. TDS:EC		0.53		0.50		0.54		0.73
Ratio Calc. TDS:EC		0.49		0.43		0.47		0.58
Ratio of anion sum:EC		0.8		0.7		0.8		1.0
Ratio of cation sum:EC		0.8		0.8		0.8		1.1

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A80784</b>	RunNo: <b>80784</b>								
Prep Date:	Analysis Date: <b>8/25/2021</b>	SeqNo: <b>2850386</b>	Units: <b>mg/L</b>							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Copper	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A80784</b>	RunNo: <b>80784</b>								
Prep Date:	Analysis Date: <b>8/25/2021</b>	SeqNo: <b>2850388</b>	Units: <b>mg/L</b>							

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.56	0.020	0.5000	0	112	85	115			
Barium	0.49	0.0020	0.5000	0	98.0	85	115			
Beryllium	0.49	0.0020	0.5000	0	98.3	85	115			
Boron	0.51	0.040	0.5000	0	103	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.5	85	115			
Calcium	47	1.0	50.00	0	93.6	85	115			
Chromium	0.49	0.0060	0.5000	0	97.4	85	115			
Cobalt	0.48	0.0060	0.5000	0	95.9	85	115			
Copper	0.50	0.0060	0.5000	0	99.8	85	115			
Iron	0.49	0.020	0.5000	0	97.3	85	115			
Magnesium	48	1.0	50.00	0	95.2	85	115			
Manganese	0.49	0.0020	0.5000	0	97.5	85	115			
Molybdenum	0.49	0.0080	0.5000	0	98.9	85	115			
Nickel	0.47	0.010	0.5000	0	94.4	85	115			
Potassium	48	1.0	50.00	0	95.9	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A80784</b>		RunNo: <b>80784</b>							
Prep Date:	Analysis Date: <b>8/25/2021</b>		SeqNo: <b>2850388</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Silver	0.10	0.0050	0.1000	0	99.5	85	115			
Sodium	48	1.0	50.00	0	96.7	85	115			
Zinc	0.47	0.010	0.5000	0	94.9	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A81103</b>	RunNo: <b>81103</b>								
Prep Date:	Analysis Date: <b>9/8/2021</b>	SeqNo: <b>2862863</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00025								
Uranium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A81103</b>	RunNo: <b>81103</b>								
Prep Date:	Analysis Date: <b>9/8/2021</b>	SeqNo: <b>2862865</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.024	0.0010	0.02500	0	94.9	85	115			
Arsenic	0.024	0.0010	0.02500	0	97.4	85	115			
Lead	0.012	0.00050	0.01250	0	97.8	85	115			
Selenium	0.023	0.0010	0.02500	0	92.3	85	115			
Thallium	0.012	0.00025	0.01250	0	98.2	85	115			
Uranium	0.012	0.00050	0.01250	0	96.6	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R80841</b>	RunNo: <b>80841</b>								
Prep Date:	Analysis Date: <b>8/26/2021</b>	SeqNo: <b>2852665</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R80841</b>	RunNo: <b>80841</b>								
Prep Date:	Analysis Date: <b>8/26/2021</b>	SeqNo: <b>2852666</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.49	0.10	0.5000	0	98.6	90	110			
Bromide	2.5	0.10	2.500	0	98.4	90	110			
Phosphorus, Orthophosphate (As P)	4.5	0.50	5.000	0	90.5	90	110			

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R80904</b>	RunNo: <b>80904</b>								
Prep Date:	Analysis Date: <b>8/30/2021</b>	SeqNo: <b>2855470</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Sulfate	ND	0.50								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R80904</b>	RunNo: <b>80904</b>								
Prep Date:	Analysis Date: <b>8/30/2021</b>	SeqNo: <b>2855478</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.7	0.50	5.000	0	94.4	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A80904</b>	RunNo: <b>80904</b>								
Prep Date:	Analysis Date: <b>8/30/2021</b>	SeqNo: <b>2855528</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Nitrate+Nitrite as N	ND	0.20								
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**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A80904</b>	RunNo: <b>80904</b>								
Prep Date:	Analysis Date: <b>8/30/2021</b>	SeqNo: <b>2855529</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Nitrate+Nitrite as N	3.5	0.20	3.500	0	99.6	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>100ng 8260 lcs2</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R80781</b>	RunNo: <b>80781</b>								
Prep Date:	Analysis Date: <b>8/25/2021</b>	SeqNo: <b>2851587</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.5	70	130			
Toluene	20	1.0	20.00	0	98.6	70	130			
Surr: 1,2-Dichloroethane-d4	8.0		10.00		80.5	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.0	70	130			
Surr: Dibromofluoromethane	7.9		10.00		79.1	70	130			
Surr: Toluene-d8	9.9		10.00		98.8	70	130			

Sample ID: <b>mb2</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R80781</b>	RunNo: <b>80781</b>								
Prep Date:	Analysis Date: <b>8/25/2021</b>	SeqNo: <b>2851588</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.2		10.00		81.5	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		98.8	70	130			
Surr: Dibromofluoromethane	8.1		10.00		81.0	70	130			
Surr: Toluene-d8	9.9		10.00		98.5	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>ics-1 98.7uS eC</b>	SampType: <b>ics</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R80910</b>	RunNo: <b>80910</b>								
Prep Date:	Analysis Date: <b>8/30/2021</b>	SeqNo: <b>2855589</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	98.70	0	102	85	115			

**Qualifiers:**

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- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>mb-1 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R80883</b>	RunNo: <b>80883</b>								
Prep Date:	Analysis Date: <b>8/27/2021</b>	SeqNo: <b>2854313</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>ics-1 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R80883</b>	RunNo: <b>80883</b>								
Prep Date:	Analysis Date: <b>8/27/2021</b>	SeqNo: <b>2854314</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	79.76	20.00	80.00	0	99.7	90	110			

Sample ID: <b>mb-2 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R80883</b>	RunNo: <b>80883</b>								
Prep Date:	Analysis Date: <b>8/27/2021</b>	SeqNo: <b>2854337</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>ics-2 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R80883</b>	RunNo: <b>80883</b>								
Prep Date:	Analysis Date: <b>8/27/2021</b>	SeqNo: <b>2854338</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	80.08	20.00	80.00	0	100	90	110			

**Qualifiers:**

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- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2108D33

13-Sep-21

**Client:** Safety & Environmental Solutions

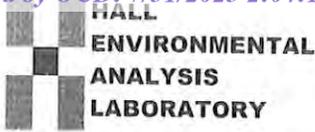
**Project:** Inex Pit

Sample ID: <b>MB-62211</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>62211</b>	RunNo: <b>80862</b>								
Prep Date: <b>8/26/2021</b>	Analysis Date: <b>8/27/2021</b>	SeqNo: <b>2853393</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-62211</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>62211</b>	RunNo: <b>80862</b>								
Prep Date: <b>8/26/2021</b>	Analysis Date: <b>8/27/2021</b>	SeqNo: <b>2853394</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1030	20.0	1000	0	103	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: clients.hallenvironmental.com

# Sample Log-In Check List

Client Name: **Safety & Environmental Solutions**

Work Order Number: **2108D33**

RcptNo: **1**

Received By: **Cheyenne Cason**

8/25/2021 7:10:00 AM

*Cason*

Completed By: **Sean Livingston**

8/25/2021 8:39:53 AM

*Livingston*

Reviewed By: *JR 8/25/21*

### Chain of Custody

- 1. Is Chain of Custody complete? Yes  No  Not Present
- 2. How was the sample delivered? Courier

### Log In

- 3. Was an attempt made to cool the samples? Yes  No  NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 5. Sample(s) in proper container(s)? Yes  No
- 6. Sufficient sample volume for indicated test(s)? Yes  No
- 7. Are samples (except VOA and ONG) properly preserved? Yes  No
- 8. Was preservative added to bottles? Yes  No  NA
- 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes  No  NA
- 10. Were any sample containers received broken? Yes  No
- 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 12. Are matrices correctly identified on Chain of Custody? Yes  No
- 13. Is it clear what analyses were requested? Yes  No
- 14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes  No

# of preserved bottles checked for pH: *8*  
(*<2* or *>12* unless noted)

Adjusted? *NO*

Checked by: *KPG 8/25/21*

### Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.5	Good				

### Chain-of-Custody Record

Client: Safety Environmental Solutions  
 Mailing Address: 703 E. Clinton Hobbs N.M. 88240  
 Phone #: 575-397-0510

Turn-Around Time: 5 Day  
 Standard  Rush  
 Project Name: EOS Inex Per  
 Project #: YAT-04-003

Project Manager: Boyer, Dave  
 Sampler: Jon Fury  
 On Ice:  Yes  No  
 # of Coolers: 1

QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation:  Az Compliance  NELAC  Other  
 EDD (Type)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
08/23	0930	Aq	MW-3	6	Ice	2109033 001
08/23	1040	Aq	MW-1	6	HNO3	002
08/23	1120	Aq	MW-4	6	H2SO4	003
08/23	1210	Aq	MW-2	6		004

Relinquished by: Jon Fury Date: 08/24/23 Time: 1630  
 Relinquished by: Jon Fury Date: 08/24/23 Time: 1630

Received by: Alumino Date: 08/24/23 Time: 1630  
 Received by: Alumino Date: 08/24/23 Time: 1630



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

### Analysis Request

Analysis Request	Analysis Request
BTEX / MTBE / TMBs (8021)	
TPH:8015D(GRO / DRO / MRO)	
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	
Naphthalene BTEX	
Dissolved Metals	
UPEL, Carbons	
ANIONS, TDS	
LAB BALANCE	
SP COND.	

Remarks:



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

April 18, 2022

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 397-0510  
FAX (575) 393-4388

RE: EOG Inex Pit

OrderNo.: 2203C80

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 3/24/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2203C80**

Date Reported: **4/18/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** EOG Inex Pit

**Collection Date:** 3/21/2022 1:10:00 PM

**Lab ID:** 2203C80-001

**Matrix:** AQUEOUS

**Received Date:** 3/24/2022 7:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Fluoride	ND	0.50		mg/L	5	3/26/2022 4:50:44 PM
Chloride	11000	500	*	mg/L	1000	3/30/2022 2:41:19 PM
Bromide	5.2	5.0		mg/L	50	3/30/2022 2:54:11 PM
Phosphorus, Orthophosphate (As P)	ND	2.5	H	mg/L	5	3/26/2022 4:50:44 PM
Sulfate	2200	500	*	mg/L	1000	3/30/2022 2:41:19 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	3/30/2022 10:17:38 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Aluminum	ND	0.10		mg/L	5	3/28/2022 3:12:47 PM
Barium	0.023	0.010		mg/L	5	3/28/2022 3:12:47 PM
Beryllium	ND	0.010		mg/L	5	3/28/2022 3:12:47 PM
Boron	0.51	0.20		mg/L	5	3/28/2022 3:12:47 PM
Cadmium	ND	0.010		mg/L	5	3/28/2022 3:12:47 PM
Calcium	1200	20		mg/L	20	3/29/2022 12:23:39 PM
Chromium	ND	0.030		mg/L	5	3/28/2022 3:12:47 PM
Cobalt	ND	0.030		mg/L	5	3/28/2022 3:12:47 PM
Iron	ND	0.020		mg/L	1	3/28/2022 3:11:06 PM
Magnesium	480	5.0		mg/L	5	3/28/2022 3:12:47 PM
Manganese	0.12	0.010	*	mg/L	5	3/28/2022 3:12:47 PM
Molybdenum	ND	0.040		mg/L	5	3/29/2022 12:21:59 PM
Nickel	ND	0.050		mg/L	5	3/28/2022 3:12:47 PM
Potassium	25	1.0		mg/L	1	3/28/2022 3:11:06 PM
Silver	ND	0.025		mg/L	5	3/28/2022 3:12:47 PM
Sodium	7900	100		mg/L	100	3/29/2022 12:25:18 PM
Zinc	ND	0.050		mg/L	5	3/28/2022 3:12:47 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.020		mg/L	20	4/1/2022 1:42:22 PM
Arsenic	ND	0.020		mg/L	20	3/30/2022 4:29:32 PM
Copper	ND	0.020		mg/L	20	3/30/2022 4:29:32 PM
Lead	ND	0.010		mg/L	20	3/30/2022 4:29:32 PM
Selenium	ND	0.020		mg/L	20	3/30/2022 4:29:32 PM
Thallium	ND	0.0050		mg/L	20	3/30/2022 4:29:32 PM
Uranium	0.011	0.010		mg/L	20	4/1/2022 1:42:22 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>BRM</b>
Benzene	ND	1.0		µg/L	1	3/30/2022 11:34:33 AM
Toluene	ND	1.0		µg/L	1	3/30/2022 11:34:33 AM
Ethylbenzene	ND	1.0		µg/L	1	3/30/2022 11:34:33 AM
Naphthalene	ND	2.0		µg/L	1	3/30/2022 11:34:33 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/30/2022 11:34:33 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2203C80**

Date Reported: **4/18/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** EOG Inex Pit

**Collection Date:** 3/21/2022 1:10:00 PM

**Lab ID:** 2203C80-001

**Matrix:** AQUEOUS

**Received Date:** 3/24/2022 7:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>BRM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	3/30/2022 11:34:33 AM
Xylenes, Total	ND	1.5		µg/L	1	3/30/2022 11:34:33 AM
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%Rec	1	3/30/2022 11:34:33 AM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	3/30/2022 11:34:33 AM
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	3/30/2022 11:34:33 AM
Surr: Toluene-d8	104	70-130		%Rec	1	3/30/2022 11:34:33 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>MRA</b>
Conductivity	44000	100		µmhos/c	10	3/31/2022 3:52:19 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>LRN</b>
pH	7.49		H	pH units	1	3/29/2022 6:34:40 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>LRN</b>
Bicarbonate (As CaCO3)	314.7	20.00		mg/L Ca	1	3/29/2022 6:34:40 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	3/29/2022 6:34:40 PM
Total Alkalinity (as CaCO3)	314.7	20.00		mg/L Ca	1	3/29/2022 6:34:40 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	23200	200	*D	mg/L	1	3/31/2022 11:22:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

Analytical Report

Lab Order 2203C80

Date Reported: 4/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-1

Project: EOG Inex Pit

Collection Date: 3/21/2022 1:40:00 PM

Lab ID: 2203C80-002

Matrix: AQUEOUS

Received Date: 3/24/2022 7:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Fluoride	ND	2.0		mg/L	20	3/26/2022 6:17:37 PM
Chloride	7500	500	*	mg/L	1000	3/30/2022 3:07:03 PM
Bromide	ND	2.0		mg/L	20	3/26/2022 6:17:37 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	3/26/2022 6:17:37 PM
Sulfate	1100	500	*	mg/L	1000	3/30/2022 3:07:03 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	3/30/2022 10:30:30 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Aluminum	ND	0.10		mg/L	5	3/28/2022 3:16:10 PM
Barium	0.031	0.010		mg/L	5	3/28/2022 3:16:10 PM
Beryllium	ND	0.010		mg/L	5	3/28/2022 3:16:10 PM
Boron	ND	0.20		mg/L	5	3/28/2022 3:16:10 PM
Cadmium	ND	0.010		mg/L	5	3/28/2022 3:16:10 PM
Calcium	1600	20		mg/L	20	3/29/2022 12:28:36 PM
Chromium	ND	0.030		mg/L	5	3/28/2022 3:16:10 PM
Cobalt	ND	0.030		mg/L	5	3/28/2022 3:16:10 PM
Iron	0.029	0.020		mg/L	1	3/28/2022 3:14:29 PM
Magnesium	570	20		mg/L	20	3/29/2022 12:28:36 PM
Manganese	0.011	0.010		mg/L	5	3/28/2022 3:16:10 PM
Molybdenum	ND	0.040		mg/L	5	3/29/2022 12:26:56 PM
Nickel	ND	0.050		mg/L	5	3/28/2022 3:16:10 PM
Potassium	9.3	1.0		mg/L	1	3/28/2022 3:14:29 PM
Silver	ND	0.025		mg/L	5	3/28/2022 3:16:10 PM
Sodium	4200	50		mg/L	50	3/29/2022 12:30:09 PM
Zinc	ND	0.050		mg/L	5	3/28/2022 3:16:10 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.020		mg/L	20	4/1/2022 1:45:02 PM
Arsenic	ND	0.020		mg/L	20	3/30/2022 4:32:13 PM
Copper	ND	0.020		mg/L	20	3/30/2022 4:32:13 PM
Lead	ND	0.010		mg/L	20	3/30/2022 4:32:13 PM
Selenium	ND	0.020		mg/L	20	3/30/2022 4:32:13 PM
Thallium	ND	0.0050		mg/L	20	3/30/2022 4:32:13 PM
Uranium	ND	0.010		mg/L	20	4/1/2022 1:45:02 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>BRM</b>
Benzene	ND	1.0		µg/L	1	3/30/2022 12:01:21 PM
Toluene	ND	1.0		µg/L	1	3/30/2022 12:01:21 PM
Ethylbenzene	ND	1.0		µg/L	1	3/30/2022 12:01:21 PM
Naphthalene	ND	2.0		µg/L	1	3/30/2022 12:01:21 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/30/2022 12:01:21 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.
	D Sample Diluted Due to Matrix
	H Holding times for preparation or analysis exceeded
	ND Not Detected at the Reporting Limit
	PQL Practical Quantitative Limit
	S % Recovery outside of range due to dilution or matrix interference

B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order **2203C80**

Date Reported: **4/18/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** EOG Inex Pit

**Collection Date:** 3/21/2022 1:40:00 PM

**Lab ID:** 2203C80-002

**Matrix:** AQUEOUS

**Received Date:** 3/24/2022 7:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>BRM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	3/30/2022 12:01:21 PM
Xylenes, Total	ND	1.5		µg/L	1	3/30/2022 12:01:21 PM
Surr: 1,2-Dichloroethane-d4	92.8	70-130		%Rec	1	3/30/2022 12:01:21 PM
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	3/30/2022 12:01:21 PM
Surr: Dibromofluoromethane	93.8	70-130		%Rec	1	3/30/2022 12:01:21 PM
Surr: Toluene-d8	101	70-130		%Rec	1	3/30/2022 12:01:21 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>MRA</b>
Conductivity	32000	100		µmhos/c	10	3/31/2022 3:55:07 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>LRN</b>
pH	7.19		H	pH units	1	3/29/2022 6:54:55 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>LRN</b>
Bicarbonate (As CaCO3)	164.2	20.00		mg/L Ca	1	3/29/2022 6:54:55 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	3/29/2022 6:54:55 PM
Total Alkalinity (as CaCO3)	164.2	20.00		mg/L Ca	1	3/29/2022 6:54:55 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	19400	100	*D	mg/L	1	3/31/2022 11:22:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2203C80**

Date Reported: **4/18/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** EOG Inex Pit

**Collection Date:** 3/21/2022 2:00:00 PM

**Lab ID:** 2203C80-003

**Matrix:** AQUEOUS

**Received Date:** 3/24/2022 7:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Fluoride	ND	2.0		mg/L	20	3/26/2022 6:42:25 PM
Chloride	9600	500	*	mg/L	1000	3/30/2022 3:19:55 PM
Bromide	ND	2.0		mg/L	20	3/26/2022 6:42:25 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	3/26/2022 6:42:25 PM
Sulfate	950	500	*	mg/L	1000	3/30/2022 3:19:55 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	3/30/2022 10:43:21 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Aluminum	ND	0.10		mg/L	5	3/28/2022 3:25:49 PM
Barium	0.043	0.010		mg/L	5	3/28/2022 3:25:49 PM
Beryllium	ND	0.010		mg/L	5	3/28/2022 3:25:49 PM
Boron	ND	0.20		mg/L	5	3/28/2022 3:25:49 PM
Cadmium	ND	0.010		mg/L	5	3/28/2022 3:25:49 PM
Calcium	2400	50		mg/L	50	3/29/2022 12:39:38 PM
Chromium	ND	0.030		mg/L	5	3/28/2022 3:25:49 PM
Cobalt	ND	0.030		mg/L	5	3/28/2022 3:25:49 PM
Iron	0.020	0.020		mg/L	1	3/28/2022 3:24:08 PM
Magnesium	810	50		mg/L	50	3/29/2022 12:39:38 PM
Manganese	ND	0.010		mg/L	5	3/28/2022 3:25:49 PM
Molybdenum	ND	0.040		mg/L	5	3/29/2022 12:37:54 PM
Nickel	ND	0.050		mg/L	5	3/28/2022 3:25:49 PM
Potassium	11	1.0		mg/L	1	3/28/2022 3:24:08 PM
Silver	ND	0.025		mg/L	5	3/28/2022 3:25:49 PM
Sodium	3600	50		mg/L	50	3/29/2022 12:39:38 PM
Zinc	ND	0.050		mg/L	5	3/28/2022 3:25:49 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	4/1/2022 1:47:43 PM
Arsenic	ND	0.010		mg/L	10	3/30/2022 4:40:19 PM
Copper	ND	0.010		mg/L	10	3/30/2022 4:40:19 PM
Lead	ND	0.0050		mg/L	10	3/30/2022 4:40:19 PM
Selenium	ND	0.010		mg/L	10	3/30/2022 4:40:19 PM
Thallium	ND	0.0025		mg/L	10	3/30/2022 4:40:19 PM
Uranium	0.015	0.0050		mg/L	10	4/1/2022 1:47:43 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>BRM</b>
Benzene	ND	1.0		µg/L	1	3/30/2022 12:28:10 PM
Toluene	ND	1.0		µg/L	1	3/30/2022 12:28:10 PM
Ethylbenzene	ND	1.0		µg/L	1	3/30/2022 12:28:10 PM
Naphthalene	ND	2.0		µg/L	1	3/30/2022 12:28:10 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/30/2022 12:28:10 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2203C80**

Date Reported: **4/18/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** EOG Inex Pit

**Collection Date:** 3/21/2022 2:00:00 PM

**Lab ID:** 2203C80-003

**Matrix:** AQUEOUS

**Received Date:** 3/24/2022 7:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>BRM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	3/30/2022 12:28:10 PM
Xylenes, Total	ND	1.5		µg/L	1	3/30/2022 12:28:10 PM
Surr: 1,2-Dichloroethane-d4	98.9	70-130		%Rec	1	3/30/2022 12:28:10 PM
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	3/30/2022 12:28:10 PM
Surr: Dibromofluoromethane	98.0	70-130		%Rec	1	3/30/2022 12:28:10 PM
Surr: Toluene-d8	101	70-130		%Rec	1	3/30/2022 12:28:10 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>MRA</b>
Conductivity	35000	100		µmhos/c	10	3/31/2022 4:07:31 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>LRN</b>
pH	7.29		H	pH units	1	3/29/2022 7:17:27 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>LRN</b>
Bicarbonate (As CaCO3)	196.4	20.00		mg/L Ca	1	3/29/2022 7:17:27 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	3/29/2022 7:17:27 PM
Total Alkalinity (as CaCO3)	196.4	20.00		mg/L Ca	1	3/29/2022 7:17:27 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	21500	100	*D	mg/L	1	3/31/2022 11:22:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

Analytical Report

Lab Order 2203C80

Date Reported: 4/18/2022

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Safety & Environmental Solutions

Client Sample ID: MW-2

Project: EOG Inex Pit

Collection Date: 3/21/2022 2:30:00 PM

Lab ID: 2203C80-004

Matrix: AQUEOUS

Received Date: 3/24/2022 7:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JMT</b>
Fluoride	ND	2.0		mg/L	20	3/26/2022 7:07:15 PM
Chloride	1600	100	*	mg/L	200	3/30/2022 3:32:48 PM
Bromide	ND	2.0		mg/L	20	3/26/2022 7:07:15 PM
Phosphorus, Orthophosphate (As P)	ND	0.50	H	mg/L	1	3/26/2022 6:54:50 PM
Sulfate	870	100	*	mg/L	200	3/30/2022 3:32:48 PM
Nitrate+Nitrite as N	ND	2.0		mg/L	10	3/30/2022 10:56:14 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>ELS</b>
Aluminum	ND	0.020		mg/L	1	3/28/2022 3:27:29 PM
Barium	0.020	0.0020		mg/L	1	3/28/2022 3:27:29 PM
Beryllium	ND	0.0020		mg/L	1	3/28/2022 3:27:29 PM
Boron	0.093	0.040		mg/L	1	3/28/2022 3:27:29 PM
Cadmium	ND	0.0020		mg/L	1	3/28/2022 3:27:29 PM
Calcium	660	10		mg/L	10	3/29/2022 12:44:30 PM
Chromium	ND	0.0060		mg/L	1	3/28/2022 3:27:29 PM
Cobalt	ND	0.0060		mg/L	1	3/28/2022 3:27:29 PM
Iron	0.026	0.020		mg/L	1	3/28/2022 3:27:29 PM
Magnesium	260	5.0		mg/L	5	3/28/2022 3:29:10 PM
Manganese	0.0040	0.0020		mg/L	1	3/28/2022 3:27:29 PM
Molybdenum	ND	0.0080		mg/L	1	3/29/2022 12:41:15 PM
Nickel	ND	0.010		mg/L	1	3/28/2022 3:27:29 PM
Potassium	3.3	1.0		mg/L	1	3/28/2022 3:27:29 PM
Silver	ND	0.0050		mg/L	1	3/28/2022 3:27:29 PM
Sodium	430	5.0		mg/L	5	3/29/2022 12:42:51 PM
Zinc	0.012	0.010		mg/L	1	3/28/2022 3:27:29 PM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	4/1/2022 1:50:25 PM
Arsenic	ND	0.010		mg/L	10	3/30/2022 4:43:01 PM
Copper	ND	0.010		mg/L	10	3/30/2022 4:43:01 PM
Lead	ND	0.0050		mg/L	10	3/30/2022 4:43:01 PM
Selenium	ND	0.010		mg/L	10	3/30/2022 4:43:01 PM
Thallium	ND	0.0025		mg/L	10	3/30/2022 4:43:01 PM
Uranium	0.0064	0.0050		mg/L	10	4/1/2022 1:50:25 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>BRM</b>
Benzene	ND	1.0		µg/L	1	3/30/2022 12:54:57 PM
Toluene	ND	1.0		µg/L	1	3/30/2022 12:54:57 PM
Ethylbenzene	ND	1.0		µg/L	1	3/30/2022 12:54:57 PM
Naphthalene	ND	2.0		µg/L	1	3/30/2022 12:54:57 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	3/30/2022 12:54:57 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix interference

B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order **2203C80**

Date Reported: **4/18/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** EOG Inex Pit

**Collection Date:** 3/21/2022 2:30:00 PM

**Lab ID:** 2203C80-004

**Matrix:** AQUEOUS

**Received Date:** 3/24/2022 7:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>BRM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	3/30/2022 12:54:57 PM
Xylenes, Total	ND	1.5		µg/L	1	3/30/2022 12:54:57 PM
Surr: 1,2-Dichloroethane-d4	98.5	70-130		%Rec	1	3/30/2022 12:54:57 PM
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	3/30/2022 12:54:57 PM
Surr: Dibromofluoromethane	98.0	70-130		%Rec	1	3/30/2022 12:54:57 PM
Surr: Toluene-d8	110	70-130		%Rec	1	3/30/2022 12:54:57 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>MRA</b>
Conductivity	6500	10		µmhos/c	1	3/31/2022 4:10:20 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>LRN</b>
pH	7.74		H	pH units	1	3/29/2022 7:29:53 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>LRN</b>
Bicarbonate (As CaCO3)	146.6	20.00		mg/L Ca	1	3/29/2022 7:29:53 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	3/29/2022 7:29:53 PM
Total Alkalinity (as CaCO3)	146.6	20.00		mg/L Ca	1	3/29/2022 7:29:53 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	4990	20.0	*	mg/L	1	3/31/2022 11:22:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MW-3 2203C80-001		MW-1 2203C80-002		MW-4 2203C80-003		MW-2 2203C80-004	
	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	7900	343.63	4200	182.69	3600	156.59	430	18.70
Potassium	25	0.64	9.3	0.24	11	0.28	3.3	0.08
Calcium	1200	59.88	1600	79.84	2400	119.76	660	32.93
Magnesium	480	39.51	570	46.91	810	66.67	260	21.40
<b>Total Cations</b>		<b>443.65</b>		<b>309.68</b>		<b>343.30</b>		<b>73.12</b>
<b>ANIONS</b>								
Sulfate	2200	45.80	1100	22.90	950	19.78	870	18.11
Chloride	11000	310.30	7500	211.57	9600	270.80	1600	45.13
Bicarbonate (CaCO3)	314.7	6.29	164.2	3.28	196.4	3.92	146.6	2.93
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)								
Fluoride								
Bromide	5.2	0.07			-			
<b>Total Anions</b>		<b>362.45</b>		<b>237.75</b>		<b>294.51</b>		<b>66.18</b>
Elect. Cond. (µMhos/cm)	44000		32000		35000		6500	
<b>CATION/ANION RATIO</b>		<b>1.22</b>		<b>1.30</b>		<b>1.17</b>		<b>1.10</b>
% Difference		10		13		8		5
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	23200		19400		21500		4990	
TDS (calculated)	22999		15078		17489		3911	
Ratio meas TDS:calc TDS		1.0		1.3		1.2		1.3
Ratio Meas. TDS:EC		0.53		0.61		0.61		0.77
Ratio Calc. TDS:EC		0.52		0.47		0.50		0.60
Ratio of anion sum:EC		0.8		0.7		0.8		1.0
Ratio of cation sum:EC		1.0		1.0		1.0		1.1

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2203C80

18-Apr-22

**Client:** Safety & Environmental Solutions

**Project:** EOG Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>B86796</b>	RunNo: <b>86796</b>								
Prep Date:	Analysis Date: <b>3/28/2022</b>	SeqNo: <b>3064891</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	ND	0.020								
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Zinc	ND	0.010								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B86796</b>	RunNo: <b>86796</b>								
Prep Date:	Analysis Date: <b>3/28/2022</b>	SeqNo: <b>3064895</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.0020	0.5000	0	101	85	115			
Beryllium	0.52	0.0020	0.5000	0	105	85	115			
Boron	0.52	0.040	0.5000	0	105	85	115			
Cadmium	0.49	0.0020	0.5000	0	98.8	85	115			
Chromium	0.49	0.0060	0.5000	0	97.6	85	115			
Cobalt	0.48	0.0060	0.5000	0	96.6	85	115			
Iron	0.51	0.020	0.5000	0	102	85	115			
Magnesium	52	1.0	50.00	0	105	85	115			
Manganese	0.50	0.0020	0.5000	0	99.9	85	115			
Nickel	0.47	0.010	0.5000	0	94.9	85	115			
Potassium	51	1.0	50.00	0	103	85	115			
Silver	0.099	0.0050	0.1000	0	98.6	85	115			
Zinc	0.52	0.010	0.5000	0	104	85	115			

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B86796</b>	RunNo: <b>86796</b>								
Prep Date:	Analysis Date: <b>3/28/2022</b>	SeqNo: <b>3064951</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Aluminum	0.50	0.020	0.5000	0	101	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2203C80

18-Apr-22

**Client:** Safety & Environmental Solutions

**Project:** EOG Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A86825</b>	RunNo: <b>86825</b>								
Prep Date:	Analysis Date: <b>3/29/2022</b>	SeqNo: <b>3066292</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Calcium	ND	1.0								
Magnesium	ND	1.0								
Molybdenum	ND	0.0080								
Sodium	ND	1.0								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A86825</b>	RunNo: <b>86825</b>								
Prep Date:	Analysis Date: <b>3/29/2022</b>	SeqNo: <b>3066296</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Calcium	49	1.0	50.00	0	97.4	85	115			
Magnesium	50	1.0	50.00	0	99.1	85	115			
Molybdenum	0.50	0.0080	0.5000	0	101	85	115			
Sodium	50	1.0	50.00	0	99.9	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2203C80

18-Apr-22

**Client:** Safety & Environmental Solutions

**Project:** EOG Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>B86848</b>	RunNo: <b>86848</b>								
Prep Date:	Analysis Date: <b>3/30/2022</b>	SeqNo: <b>3069428</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00025								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B86848</b>	RunNo: <b>86848</b>								
Prep Date:	Analysis Date: <b>3/30/2022</b>	SeqNo: <b>3069430</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Copper	0.025	0.0010	0.02500	0	98.5	85	115			
Lead	0.012	0.00050	0.01250	0	98.4	85	115			
Selenium	0.025	0.0010	0.02500	0	99.4	85	115			
Thallium	0.012	0.00025	0.01250	0	99.4	85	115			

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>B86946</b>	RunNo: <b>86946</b>								
Prep Date:	Analysis Date: <b>4/1/2022</b>	SeqNo: <b>3072048</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	ND	0.0010								
Uranium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B86946</b>	RunNo: <b>86946</b>								
Prep Date:	Analysis Date: <b>4/1/2022</b>	SeqNo: <b>3072050</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Antimony	0.023	0.0010	0.02500	0	91.2	85	115			
Uranium	0.013	0.00050	0.01250	0	104	85	115			

**Qualifiers:**

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2203C80

18-Apr-22

**Client:** Safety & Environmental Solutions

**Project:** EOG Inex Pit

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R86791</b>	RunNo: <b>86791</b>								
Prep Date:	Analysis Date: <b>3/26/2022</b>	SeqNo: <b>3064696</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P)	ND	0.50								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R86791</b>	RunNo: <b>86791</b>								
Prep Date:	Analysis Date: <b>3/26/2022</b>	SeqNo: <b>3064697</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Fluoride	0.51	0.10	0.5000	0	101	90	110			
Bromide	2.5	0.10	2.500	0	98.1	90	110			
Phosphorus, Orthophosphate (As P)	4.5	0.50	5.000	0	90.6	90	110			

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R86883</b>	RunNo: <b>86883</b>								
Prep Date:	Analysis Date: <b>3/30/2022</b>	SeqNo: <b>3069589</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	ND	0.50								
Bromide	ND	0.10								
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R86883</b>	RunNo: <b>86883</b>								
Prep Date:	Analysis Date: <b>3/30/2022</b>	SeqNo: <b>3069590</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Chloride	4.8	0.50	5.000	0	96.5	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Sulfate	9.6	0.50	10.00	0	95.7	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	102	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2203C80

18-Apr-22

**Client:** Safety & Environmental Solutions

**Project:** EOG Inex Pit

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>B86862</b>	RunNo: <b>86862</b>								
Prep Date:	Analysis Date: <b>3/30/2022</b>	SeqNo: <b>3068138</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	90.7	70	130			
Toluene	20	1.0	20.00	0	98.4	70	130			
Surr: 1,2-Dichloroethane-d4	9.4		10.00		94.3	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	9.0		10.00		89.8	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

Sample ID: <b>mb</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>B86862</b>	RunNo: <b>86862</b>								
Prep Date:	Analysis Date: <b>3/30/2022</b>	SeqNo: <b>3068154</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.3		10.00		92.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	9.1		10.00		90.9	70	130			
Surr: Toluene-d8	10		10.00		102	70	130			

**Qualifiers:**

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2203C80

18-Apr-22

**Client:** Safety & Environmental Solutions

**Project:** EOG Inex Pit

Sample ID: <b>Ics-1 100.2uS eC</b>	SampType: <b>Ics</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R86894</b>	RunNo: <b>86894</b>								
Prep Date:	Analysis Date: <b>3/31/2022</b>	SeqNo: <b>3069794</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	100.2	0	100	85	115			

Sample ID: <b>Ics-2 100.2uS eC</b>	SampType: <b>Ics</b>	TestCode: <b>SM2510B: Specific Conductance</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R86894</b>	RunNo: <b>86894</b>								
Prep Date:	Analysis Date: <b>3/31/2022</b>	SeqNo: <b>3069819</b>	Units: <b>µmhos/cm</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	100.2	0	101	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2203C80

18-Apr-22

**Client:** Safety & Environmental Solutions

**Project:** EOG Inex Pit

Sample ID: <b>mb-1 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R86834</b>	RunNo: <b>86834</b>								
Prep Date:	Analysis Date: <b>3/29/2022</b>	SeqNo: <b>3066986</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>ics-1 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R86834</b>	RunNo: <b>86834</b>								
Prep Date:	Analysis Date: <b>3/29/2022</b>	SeqNo: <b>3066987</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	73.00	20.00	80.00	0	91.2	90	110			

Sample ID: <b>mb-2 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R86834</b>	RunNo: <b>86834</b>								
Prep Date:	Analysis Date: <b>3/29/2022</b>	SeqNo: <b>3067009</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>ics-2 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R86834</b>	RunNo: <b>86834</b>								
Prep Date:	Analysis Date: <b>3/29/2022</b>	SeqNo: <b>3067010</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	72.56	20.00	80.00	0	90.7	90	110			

**Qualifiers:**

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- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
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- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
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- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2203C80

18-Apr-22

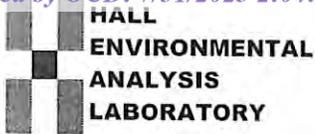
**Client:** Safety & Environmental Solutions  
**Project:** EOG Inex Pit

Sample ID: <b>MB-66429</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>66429</b>	RunNo: <b>86876</b>								
Prep Date: <b>3/28/2022</b>	Analysis Date: <b>3/31/2022</b>	SeqNo: <b>3069219</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-66429</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>66429</b>	RunNo: <b>86876</b>								
Prep Date: <b>3/28/2022</b>	Analysis Date: <b>3/31/2022</b>	SeqNo: <b>3069220</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1080	20.0	1000	0	108	80	120			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit



Hall Environmental Analysis Laboratory
4901 Hawkins NE
Albuquerque, NM 87109
TEL: 505-345-3975 FAX: 505-345-4107
Website: clients.hallenvironmental.com

Sample Log-In Check List

Client Name: Safety & Environmental Solutions
Work Order Number: 2203C80
RcptNo: 1

Received By: Cheyenne Cason 3/24/2022 7:32:00 AM

Completed By: Sean Livingston 3/24/2022 8:55:05 AM

Reviewed By: [Handwritten initials] 3/24/22

[Handwritten signatures]

Chain of Custody

- 1. Is Chain of Custody complete? Yes [checked] No [ ] Not Present [ ]
2. How was the sample delivered? Courier

Log In

- 3. Was an attempt made to cool the samples? Yes [checked] No [ ] NA [ ]
4. Were all samples received at a temperature of >0° C to 6.0°C Yes [checked] No [ ] NA [ ]
5. Sample(s) in proper container(s)? Yes [checked] No [ ]
6. Sufficient sample volume for indicated test(s)? Yes [checked] No [ ]
7. Are samples (except VOA and ONG) properly preserved? Yes [checked] No [ ]
8. Was preservative added to bottles? Yes [ ] No [checked] NA [ ]
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes [checked] No [ ] NA [ ]
10. Were any sample containers received broken? Yes [ ] No [checked]
11. Does paperwork match bottle labels? Yes [checked] No [ ]
12. Are matrices correctly identified on Chain of Custody? Yes [checked] No [ ]
13. Is it clear what analyses were requested? Yes [checked] No [ ]
14. Were all holding times able to be met? Yes [checked] No [ ]

# of preserved bottles checked for pH: 8
Adjusted? [checked]
Checked by: TMC 3/24/22

Special Handling (if applicable)

- 15. Was client notified of all discrepancies with this order? Yes [ ] No [ ] NA [checked]

Person Notified: [ ] Date: [ ]
By Whom: [ ] Via: [ ] eMail [ ] Phone [ ] Fax [ ] In Person [ ]
Regarding: [ ]
Client Instructions: [ ]

16. Additional remarks:

17. Cooler Information

Table with 7 columns: Cooler No, Temp °C, Condition, Seal Intact, Seal No, Seal Date, Signed By. Contains 2 rows of data.





Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

September 09, 2022

Dave Boyer  
Safety & Environmental Solutions  
PO Box 1613  
Hobbs, NM 88241  
TEL: (575) 397-0510  
FAX (575) 393-4388

RE: Inex Pit

OrderNo.: 2208429

Dear Dave Boyer:

Hall Environmental Analysis Laboratory received 4 sample(s) on 8/6/2022 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

**Analytical Report**

Lab Order **2208429**

Date Reported: **9/9/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 8/4/2022 1:10:00 PM

**Lab ID:** 2208429-001

**Matrix:** AQUEOUS

**Received Date:** 8/6/2022 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JTT</b>
Fluoride	ND	2.0		mg/L	20	8/9/2022 4:19:42 PM
Chloride	22000	1000	*	mg/L	2000	8/17/2022 6:06:49 PM
Bromide	11	2.0		mg/L	20	8/9/2022 4:19:42 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	8/9/2022 4:19:42 PM
Sulfate	2800	50	*	mg/L	100	8/15/2022 3:05:35 PM
Nitrate+Nitrite as N	ND	20		mg/L	100	8/17/2022 6:19:40 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JRR</b>
Aluminum	ND	0.20		mg/L	10	8/23/2022 10:28:16 AM
Barium	0.038	0.020		mg/L	10	8/23/2022 10:28:16 AM
Beryllium	ND	0.020		mg/L	10	8/23/2022 10:28:16 AM
Boron	0.56	0.40		mg/L	10	8/23/2022 10:28:16 AM
Cadmium	ND	0.020		mg/L	10	8/23/2022 10:28:16 AM
Calcium	1800	100		mg/L	100	8/23/2022 10:30:31 AM
Chromium	ND	0.060		mg/L	10	8/23/2022 10:28:16 AM
Cobalt	ND	0.060		mg/L	10	8/23/2022 10:28:16 AM
Iron	ND	0.20		mg/L	10	8/23/2022 10:28:16 AM
Magnesium	650	10		mg/L	10	8/23/2022 10:28:16 AM
Manganese	0.28	0.020	*	mg/L	10	8/23/2022 10:28:16 AM
Molybdenum	ND	0.080		mg/L	10	8/23/2022 10:28:16 AM
Nickel	ND	0.10		mg/L	10	8/23/2022 10:28:16 AM
Potassium	25	10		mg/L	10	8/23/2022 10:28:16 AM
Silver	ND	0.050		mg/L	10	8/23/2022 10:28:16 AM
Sodium	13000	500		mg/L	500	8/25/2022 3:21:19 PM
Zinc	ND	0.10		mg/L	10	8/23/2022 10:28:16 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.020		mg/L	20	8/10/2022 5:11:41 PM
Arsenic	ND	0.020		mg/L	20	8/10/2022 5:11:41 PM
Copper	ND	0.020		mg/L	20	8/10/2022 5:11:41 PM
Lead	ND	0.010		mg/L	20	8/10/2022 5:11:41 PM
Selenium	ND	0.020		mg/L	20	8/10/2022 5:11:41 PM
Thallium	ND	0.0050		mg/L	20	8/10/2022 5:11:41 PM
Uranium	0.014	0.010		mg/L	20	8/10/2022 5:11:41 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
Benzene	ND	1.0		µg/L	1	8/10/2022 11:31:00 PM
Toluene	ND	1.0		µg/L	1	8/10/2022 11:31:00 PM
Ethylbenzene	ND	1.0		µg/L	1	8/10/2022 11:31:00 PM
Naphthalene	ND	2.0		µg/L	1	8/10/2022 11:31:00 PM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/10/2022 11:31:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quantitative Limit
S	% Recovery outside of range due to dilution or matrix interference

B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

**Analytical Report**

Lab Order **2208429**

Date Reported: **9/9/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-3

**Project:** Inex Pit

**Collection Date:** 8/4/2022 1:10:00 PM

**Lab ID:** 2208429-001

**Matrix:** AQUEOUS

**Received Date:** 8/6/2022 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	8/10/2022 11:31:00 PM
Xylenes, Total	ND	1.5		µg/L	1	8/10/2022 11:31:00 PM
Surr: 1,2-Dichloroethane-d4	115	70-130		%Rec	1	8/10/2022 11:31:00 PM
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	8/10/2022 11:31:00 PM
Surr: Dibromofluoromethane	109	70-130		%Rec	1	8/10/2022 11:31:00 PM
Surr: Toluene-d8	92.5	70-130		%Rec	1	8/10/2022 11:31:00 PM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>CAS</b>
Conductivity	84000	500		µmhos/c	50	8/11/2022 2:40:38 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>CAS</b>
pH	7.13		H	pH units	1	8/12/2022 2:57:47 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>CAS</b>
Bicarbonate (As CaCO3)	273.7	20.00		mg/L Ca	1	8/12/2022 2:57:47 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/12/2022 2:57:47 PM
Total Alkalinity (as CaCO3)	273.7	20.00		mg/L Ca	1	8/12/2022 2:57:47 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>SNS</b>
Total Dissolved Solids	45700	400	*D	mg/L	1	8/12/2022 2:13:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2208429**

Date Reported: **9/9/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 8/4/2022 1:45:00 PM

**Lab ID:** 2208429-002

**Matrix:** AQUEOUS

**Received Date:** 8/6/2022 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JTT</b>
Fluoride	ND	2.0		mg/L	20	8/9/2022 5:36:55 PM
Chloride	6000	500	*	mg/L	1000	8/17/2022 7:11:08 PM
Bromide	3.8	2.0		mg/L	20	8/9/2022 5:36:55 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	8/9/2022 5:36:55 PM
Sulfate	1300	25	*	mg/L	50	8/15/2022 3:31:19 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	8/15/2022 8:52:55 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JRR</b>
Aluminum	ND	0.20		mg/L	10	8/23/2022 10:32:36 AM
Barium	0.026	0.020		mg/L	10	8/23/2022 10:32:36 AM
Beryllium	ND	0.020		mg/L	10	8/23/2022 10:32:36 AM
Boron	ND	0.40		mg/L	10	8/23/2022 10:32:36 AM
Cadmium	ND	0.020		mg/L	10	8/23/2022 10:32:36 AM
Calcium	1200	100		mg/L	100	8/23/2022 10:34:54 AM
Chromium	ND	0.060		mg/L	10	8/23/2022 10:32:36 AM
Cobalt	ND	0.060		mg/L	10	8/23/2022 10:32:36 AM
Iron	ND	0.20		mg/L	10	8/23/2022 10:32:36 AM
Magnesium	450	10		mg/L	10	8/23/2022 10:32:36 AM
Manganese	ND	0.020		mg/L	10	8/23/2022 10:32:36 AM
Molybdenum	ND	0.080		mg/L	10	8/23/2022 10:32:36 AM
Nickel	ND	0.10		mg/L	10	8/23/2022 10:32:36 AM
Potassium	ND	10		mg/L	10	8/23/2022 10:32:36 AM
Silver	ND	0.050		mg/L	10	8/23/2022 10:32:36 AM
Sodium	2700	100		mg/L	100	8/23/2022 10:34:54 AM
Zinc	ND	0.10		mg/L	10	8/23/2022 10:32:36 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	8/10/2022 5:14:22 PM
Arsenic	ND	0.010		mg/L	10	8/10/2022 5:14:22 PM
Copper	ND	0.010		mg/L	10	8/10/2022 5:14:22 PM
Lead	ND	0.0050		mg/L	10	8/10/2022 5:14:22 PM
Selenium	ND	0.010		mg/L	10	8/10/2022 5:14:22 PM
Thallium	ND	0.0025		mg/L	10	8/10/2022 5:14:22 PM
Uranium	0.0091	0.0050		mg/L	10	8/10/2022 5:14:22 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
Benzene	ND	1.0		µg/L	1	8/11/2022 12:39:00 AM
Toluene	ND	1.0		µg/L	1	8/11/2022 12:39:00 AM
Ethylbenzene	ND	1.0		µg/L	1	8/11/2022 12:39:00 AM
Naphthalene	ND	2.0		µg/L	1	8/11/2022 12:39:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/11/2022 12:39:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2208429**

Date Reported: **9/9/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-1

**Project:** Inex Pit

**Collection Date:** 8/4/2022 1:45:00 PM

**Lab ID:** 2208429-002

**Matrix:** AQUEOUS

**Received Date:** 8/6/2022 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	8/11/2022 12:39:00 AM
Xylenes, Total	ND	1.5		µg/L	1	8/11/2022 12:39:00 AM
Surr: 1,2-Dichloroethane-d4	115	70-130		%Rec	1	8/11/2022 12:39:00 AM
Surr: 4-Bromofluorobenzene	97.5	70-130		%Rec	1	8/11/2022 12:39:00 AM
Surr: Dibromofluoromethane	108	70-130		%Rec	1	8/11/2022 12:39:00 AM
Surr: Toluene-d8	91.4	70-130		%Rec	1	8/11/2022 12:39:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>CAS</b>
Conductivity	28000	100		µmhos/c	10	8/11/2022 3:14:41 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>CAS</b>
pH	7.36		H	pH units	1	8/12/2022 3:13:21 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>CAS</b>
Bicarbonate (As CaCO3)	176.6	20.00		mg/L Ca	1	8/12/2022 3:13:21 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/12/2022 3:13:21 PM
Total Alkalinity (as CaCO3)	176.6	20.00		mg/L Ca	1	8/12/2022 3:13:21 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>SNS</b>
Total Dissolved Solids	17200	1000	*D	mg/L	1	8/12/2022 2:13:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2208429**

Date Reported: **9/9/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 8/4/2022 2:20:00 PM

**Lab ID:** 2208429-003

**Matrix:** AQUEOUS

**Received Date:** 8/6/2022 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JTT</b>
Fluoride	ND	2.0		mg/L	20	8/9/2022 6:02:39 PM
Chloride	9800	1000	*	mg/L	2000	8/17/2022 7:24:00 PM
Bromide	6.8	2.0		mg/L	20	8/9/2022 6:02:39 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	8/9/2022 6:02:39 PM
Sulfate	1100	25	*	mg/L	50	8/15/2022 3:57:02 PM
Nitrate+Nitrite as N	ND	10		mg/L	50	8/15/2022 9:05:48 PM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JRR</b>
Aluminum	ND	0.20		mg/L	10	8/23/2022 10:36:59 AM
Barium	0.043	0.020		mg/L	10	8/23/2022 10:36:59 AM
Beryllium	ND	0.020		mg/L	10	8/23/2022 10:36:59 AM
Boron	ND	0.40		mg/L	10	8/23/2022 10:36:59 AM
Cadmium	ND	0.020		mg/L	10	8/23/2022 10:36:59 AM
Calcium	2300	100		mg/L	100	8/23/2022 10:39:21 AM
Chromium	ND	0.060		mg/L	10	8/23/2022 10:36:59 AM
Cobalt	ND	0.060		mg/L	10	8/23/2022 10:36:59 AM
Iron	ND	0.20		mg/L	10	8/23/2022 10:36:59 AM
Magnesium	790	10		mg/L	10	8/23/2022 10:36:59 AM
Manganese	0.050	0.020	*	mg/L	10	8/23/2022 10:36:59 AM
Molybdenum	ND	0.080		mg/L	10	8/23/2022 10:36:59 AM
Nickel	ND	0.10		mg/L	10	8/23/2022 10:36:59 AM
Potassium	ND	10		mg/L	10	8/23/2022 10:36:59 AM
Silver	ND	0.050		mg/L	10	8/23/2022 10:36:59 AM
Sodium	3300	100		mg/L	100	8/23/2022 10:39:21 AM
Zinc	ND	0.10		mg/L	10	8/23/2022 10:36:59 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.020		mg/L	20	8/10/2022 5:17:04 PM
Arsenic	ND	0.020		mg/L	20	8/10/2022 5:17:04 PM
Copper	ND	0.020		mg/L	20	8/10/2022 5:17:04 PM
Lead	ND	0.010		mg/L	20	8/10/2022 5:17:04 PM
Selenium	ND	0.020		mg/L	20	8/10/2022 5:17:04 PM
Thallium	ND	0.0050		mg/L	20	8/10/2022 5:17:04 PM
Uranium	0.013	0.010		mg/L	20	8/10/2022 5:17:04 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
Benzene	ND	1.0		µg/L	1	8/11/2022 1:02:00 AM
Toluene	ND	1.0		µg/L	1	8/11/2022 1:02:00 AM
Ethylbenzene	ND	1.0		µg/L	1	8/11/2022 1:02:00 AM
Naphthalene	ND	2.0		µg/L	1	8/11/2022 1:02:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/11/2022 1:02:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2208429**

Date Reported: **9/9/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-4

**Project:** Inex Pit

**Collection Date:** 8/4/2022 2:20:00 PM

**Lab ID:** 2208429-003

**Matrix:** AQUEOUS

**Received Date:** 8/6/2022 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	8/11/2022 1:02:00 AM
Xylenes, Total	ND	1.5		µg/L	1	8/11/2022 1:02:00 AM
Surr: 1,2-Dichloroethane-d4	116	70-130		%Rec	1	8/11/2022 1:02:00 AM
Surr: 4-Bromofluorobenzene	95.8	70-130		%Rec	1	8/11/2022 1:02:00 AM
Surr: Dibromofluoromethane	111	70-130		%Rec	1	8/11/2022 1:02:00 AM
Surr: Toluene-d8	89.2	70-130		%Rec	1	8/11/2022 1:02:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>CAS</b>
Conductivity	37000	100		µmhos/c	10	8/11/2022 3:20:39 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>CAS</b>
pH	7.03		H	pH units	1	8/12/2022 3:24:19 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>CAS</b>
Bicarbonate (As CaCO3)	191.5	20.00		mg/L Ca	1	8/12/2022 3:24:19 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/12/2022 3:24:19 PM
Total Alkalinity (as CaCO3)	191.5	20.00		mg/L Ca	1	8/12/2022 3:24:19 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>SNS</b>
Total Dissolved Solids	27300	1000	*D	mg/L	1	8/12/2022 2:13:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2208429**

Date Reported: **9/9/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 8/4/2022 3:00:00 PM

**Lab ID:** 2208429-004

**Matrix:** AQUEOUS

**Received Date:** 8/6/2022 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>JTT</b>
Fluoride	ND	2.0		mg/L	20	8/9/2022 6:28:23 PM
Chloride	1500	100	*	mg/L	200	8/17/2022 7:36:52 PM
Bromide	0.94	0.10		mg/L	1	8/9/2022 6:15:31 PM
Phosphorus, Orthophosphate (As P)	ND	10	H	mg/L	20	8/9/2022 6:28:23 PM
Sulfate	950	25	*	mg/L	50	8/15/2022 4:22:45 PM
Nitrate+Nitrite as N	ND	1.0		mg/L	5	8/10/2022 1:58:56 AM
<b>EPA METHOD 200.7: DISSOLVED METALS</b>						Analyst: <b>JRR</b>
Aluminum	ND	0.20		mg/L	10	8/23/2022 10:41:29 AM
Barium	ND	0.020		mg/L	10	8/23/2022 10:41:29 AM
Beryllium	ND	0.020		mg/L	10	8/23/2022 10:41:29 AM
Boron	ND	0.40		mg/L	10	8/23/2022 10:41:29 AM
Cadmium	ND	0.020		mg/L	10	8/23/2022 10:41:29 AM
Calcium	650	10		mg/L	10	8/23/2022 10:41:29 AM
Chromium	ND	0.060		mg/L	10	8/23/2022 10:41:29 AM
Cobalt	ND	0.060		mg/L	10	8/23/2022 10:41:29 AM
Iron	ND	0.20		mg/L	10	8/23/2022 10:41:29 AM
Magnesium	240	10		mg/L	10	8/23/2022 10:41:29 AM
Manganese	ND	0.020		mg/L	10	8/23/2022 10:41:29 AM
Molybdenum	ND	0.080		mg/L	10	8/23/2022 10:41:29 AM
Nickel	ND	0.10		mg/L	10	8/23/2022 10:41:29 AM
Potassium	ND	10		mg/L	10	8/23/2022 10:41:29 AM
Silver	ND	0.050		mg/L	10	8/23/2022 10:41:29 AM
Sodium	350	10		mg/L	10	8/23/2022 10:41:29 AM
Zinc	ND	0.10		mg/L	10	8/23/2022 10:41:29 AM
<b>EPA 200.8: DISSOLVED METALS</b>						Analyst: <b>bcv</b>
Antimony	ND	0.010		mg/L	10	8/10/2022 5:25:10 PM
Arsenic	ND	0.010		mg/L	10	8/10/2022 5:25:10 PM
Copper	ND	0.010		mg/L	10	8/10/2022 5:25:10 PM
Lead	ND	0.0050		mg/L	10	8/10/2022 5:25:10 PM
Selenium	ND	0.010		mg/L	10	8/10/2022 5:25:10 PM
Thallium	ND	0.0025		mg/L	10	8/10/2022 5:25:10 PM
Uranium	0.0064	0.0050		mg/L	10	8/10/2022 5:25:10 PM
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
Benzene	ND	1.0		µg/L	1	8/11/2022 1:25:00 AM
Toluene	ND	1.0		µg/L	1	8/11/2022 1:25:00 AM
Ethylbenzene	ND	1.0		µg/L	1	8/11/2022 1:25:00 AM
Naphthalene	ND	2.0		µg/L	1	8/11/2022 1:25:00 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	8/11/2022 1:25:00 AM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

**Analytical Report**

Lab Order **2208429**

Date Reported: **9/9/2022**

**Hall Environmental Analysis Laboratory, Inc.**

**CLIENT:** Safety & Environmental Solutions

**Client Sample ID:** MW-2

**Project:** Inex Pit

**Collection Date:** 8/4/2022 3:00:00 PM

**Lab ID:** 2208429-004

**Matrix:** AQUEOUS

**Received Date:** 8/6/2022 10:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>						Analyst: <b>CCM</b>
2-Methylnaphthalene	ND	4.0		µg/L	1	8/11/2022 1:25:00 AM
Xylenes, Total	ND	1.5		µg/L	1	8/11/2022 1:25:00 AM
Surr: 1,2-Dichloroethane-d4	114	70-130		%Rec	1	8/11/2022 1:25:00 AM
Surr: 4-Bromofluorobenzene	95.4	70-130		%Rec	1	8/11/2022 1:25:00 AM
Surr: Dibromofluoromethane	111	70-130		%Rec	1	8/11/2022 1:25:00 AM
Surr: Toluene-d8	90.4	70-130		%Rec	1	8/11/2022 1:25:00 AM
<b>SM2510B: SPECIFIC CONDUCTANCE</b>						Analyst: <b>CAS</b>
Conductivity	6300	10		µmhos/c	1	8/10/2022 6:41:16 PM
<b>SM4500-H+B / 9040C: PH</b>						Analyst: <b>CAS</b>
pH	7.47		H	pH units	1	8/12/2022 3:52:32 PM
<b>SM2320B: ALKALINITY</b>						Analyst: <b>CAS</b>
Bicarbonate (As CaCO3)	151.0	20.00		mg/L Ca	1	8/12/2022 3:52:32 PM
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	8/12/2022 3:52:32 PM
Total Alkalinity (as CaCO3)	151.0	20.00		mg/L Ca	1	8/12/2022 3:52:32 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>SNS</b>
Total Dissolved Solids	5210	40.0	*D	mg/L	1	8/12/2022 2:13:00 PM

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	D Sample Diluted Due to Matrix	E Estimated value
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	ND Not Detected at the Reporting Limit	P Sample pH Not In Range
	PQL Practical Quantitative Limit	RL Reporting Limit
	S % Recovery outside of range due to dilution or matrix interference	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

CATION/ANION BALANCE SHEET FOR WATER ANALYSES

HEAL LAB NUMBER	MWV-3		MWV-1		MWV-4		MWV-2	
	2208429-001	2208429-002	2208429-003	2208429-004	mg/L	meq/L	mg/L	meq/L
<b>CATIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sodium	13000	565.46	2700	117.44	3300	143.54	350	15.22
Potassium	25	0.64						
Calcium	1800	89.82	1200	59.88	2300	114.77	650	32.44
Magnesium	650	53.50	450	37.04	790	65.02	240	19.75
<b>Total Cations</b>	709.42	214.36			323.33		67.41	
<b>ANIONS</b>	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L	mg/L	meq/L
Sulfate	2800	58.30	1300	27.07	1100	22.90	950	19.78
Chloride	22000	620.59	6000	169.25	9800	276.45	1500	42.31
Bicarbonate (CaCO3)	273.7	5.47	176.6	3.53	191.5	3.83	151.0	3.02
Carbonate (CaCO3)								
Phosphate (P)								
Nitrite (N)								
Nitrate (N)								
Fluoride								
Bromide	11	0.14	3.8	0.05	6.8	0.09	0.94	0.01
<b>Total Anions</b>	684.50	199.90	303.26		65.12			
<b>Elect. Cond. (µMhos/cm)</b>	84000	28000	37000	6300				
<b>CATION/ANION RATIO</b>	1.04	1.07	1.07	1.04				
% Difference	2	3	3	2				
<b>TOTAL DISSOLVED SOLIDS RATIOS</b>								
TDS (measured)	45700	17200	27300	5210				
TDS (calculated)	40450	11760	17412	3782				
Ratio meas TDS:calc TDS	1.1	1.5	1.6	1.4				
Ratio Meas. TDS:EC	0.54	0.61	0.74	0.83				
Ratio Calc. TDS:EC	0.48	0.42	0.47	0.60				
Ratio of anion sum:EC	0.8	0.7	0.8	1.0				
Ratio of cation sum:EC	0.8	0.8	0.9	1.1				

\* Analyte not detected (below method detection limit).

\*\* Values below 0.55 can be obtained in waters containing appreciable concentrations of free acid or alkalinity, or not within pH 6 to 9. Values much higher than 0.7 are possible in highly saline waters.

**GENERALLY ACCEPTED RANGES**

Cation/Anion balance: 0-3 meq/L- 0.2 meq/L, 3-10 meq/L- 2%, >10 meq/L - 5%

Ratio measured TDS:calculated TDS -- 1.0-1.2. Ratio Calculated TDS:EC -- 0.55-0.7. Ratio Measured TDS:EC--0.55-0.7. Ratio of anion sum:EC -- 0.9-1.1.

Ratio of cation sum:EC -- 0.9-1.1

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB-A</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A90525</b>	RunNo: <b>90525</b>								
Prep Date:	Analysis Date: <b>8/23/2022</b>	SeqNo: <b>3232956</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Aluminum	ND	0.020								
Barium	ND	0.0020								
Beryllium	ND	0.0020								
Boron	ND	0.040								
Cadmium	ND	0.0020								
Calcium	ND	1.0								
Chromium	ND	0.0060								
Cobalt	ND	0.0060								
Iron	ND	0.020								
Magnesium	ND	1.0								
Manganese	ND	0.0020								
Molybdenum	ND	0.0080								
Nickel	ND	0.010								
Potassium	ND	1.0								
Silver	ND	0.0050								
Sodium	ND	1.0								
Zinc	ND	0.010								

Sample ID: <b>LCS-A</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 200.7: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A90525</b>	RunNo: <b>90525</b>								
Prep Date:	Analysis Date: <b>8/23/2022</b>	SeqNo: <b>3232958</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Aluminum	0.55	0.020	0.5000	0	110	85	115			
Barium	0.50	0.0020	0.5000	0	99.3	85	115			
Beryllium	0.49	0.0020	0.5000	0	98.0	85	115			
Boron	0.50	0.040	0.5000	0	99.3	85	115			
Cadmium	0.50	0.0020	0.5000	0	101	85	115			
Calcium	50	1.0	50.00	0	101	85	115			
Chromium	0.50	0.0060	0.5000	0	100	85	115			
Cobalt	0.49	0.0060	0.5000	0	98.3	85	115			
Iron	0.50	0.020	0.5000	0	100	85	115			
Magnesium	50	1.0	50.00	0	99.8	85	115			
Manganese	0.49	0.0020	0.5000	0	97.3	85	115			
Molybdenum	0.48	0.0080	0.5000	0	95.8	85	115			
Nickel	0.50	0.010	0.5000	0	100	85	115			
Potassium	49	1.0	50.00	0	97.7	85	115			
Silver	0.10	0.0050	0.1000	0	102	85	115			
Sodium	50	1.0	50.00	0	99.0	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS-A</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A90525</b>		RunNo: <b>90525</b>							
Prep Date:	Analysis Date: <b>8/23/2022</b>		SeqNo: <b>3232958</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Zinc	0.50	0.010	0.5000	0	99.5	85	115			

Sample ID: <b>MB-A</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>PBW</b>	Batch ID: <b>A90598</b>		RunNo: <b>90598</b>							
Prep Date:	Analysis Date: <b>8/25/2022</b>		SeqNo: <b>3236757</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	ND	1.0								

Sample ID: <b>LCS-A</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 200.7: Dissolved Metals</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A90598</b>		RunNo: <b>90598</b>							
Prep Date:	Analysis Date: <b>8/25/2022</b>		SeqNo: <b>3236759</b>		Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sodium	51	1.0	50.00	0	102	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>PBW</b>	Batch ID: <b>A90171</b>	RunNo: <b>90171</b>								
Prep Date:	Analysis Date: <b>8/10/2022</b>	SeqNo: <b>3215045</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	ND	0.0010								
Arsenic	ND	0.0010								
Copper	ND	0.0010								
Lead	ND	0.00050								
Selenium	ND	0.0010								
Thallium	ND	0.00025								
Uranium	ND	0.00050								

Sample ID: <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA 200.8: Dissolved Metals</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>A90171</b>	RunNo: <b>90171</b>								
Prep Date:	Analysis Date: <b>8/10/2022</b>	SeqNo: <b>3215047</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Antimony	0.025	0.0010	0.02500	0	100	85	115			
Arsenic	0.025	0.0010	0.02500	0	100	85	115			
Copper	0.025	0.0010	0.02500	0	98.6	85	115			
Lead	0.012	0.00050	0.01250	0	97.6	85	115			
Selenium	0.025	0.0010	0.02500	0	101	85	115			
Thallium	0.012	0.00025	0.01250	0	97.2	85	115			
Uranium	0.012	0.00050	0.01250	0	95.6	85	115			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R90139</b>	RunNo: <b>90139</b>								
Prep Date:	Analysis Date: <b>8/9/2022</b>	SeqNo: <b>3213737</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R90139</b>	RunNo: <b>90139</b>								
Prep Date:	Analysis Date: <b>8/9/2022</b>	SeqNo: <b>3213738</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.52	0.10	0.5000	0	104	90	110			
Bromide	2.5	0.10	2.500	0	101	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.1	90	110			
Nitrate+Nitrite as N	3.6	0.20	3.500	0	104	90	110			

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R90299</b>	RunNo: <b>90299</b>								
Prep Date:	Analysis Date: <b>8/15/2022</b>	SeqNo: <b>3220971</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

Sample ID: <b>LCS</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R90299</b>	RunNo: <b>90299</b>								
Prep Date:	Analysis Date: <b>8/15/2022</b>	SeqNo: <b>3220972</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sulfate	9.8	0.50	10.00	0	98.2	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	98.0	90	110			

Sample ID: <b>MB</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R90388</b>	RunNo: <b>90388</b>								
Prep Date:	Analysis Date: <b>8/17/2022</b>	SeqNo: <b>3224861</b>			Units: <b>mg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>LCS</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R90388</b>	RunNo: <b>90388</b>								
Prep Date:	Analysis Date: <b>8/17/2022</b>	SeqNo: <b>3224862</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.6	0.50	5.000	0	92.5	90	110			
Nitrate+Nitrite as N	3.4	0.20	3.500	0	97.5	90	110			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
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- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
- B Analyte detected in the associated Method Blank
- E Estimated value
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>100ng lcs 2</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>SL90188</b>	RunNo: <b>90188</b>								
Prep Date:	Analysis Date: <b>8/10/2022</b>	SeqNo: <b>3216149</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	22	1.0	20.00	0	111	70	130			
Toluene	20	1.0	20.00	0	98.9	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		110	70	130			
Surr: 4-Bromofluorobenzene	9.9		10.00		99.2	70	130			
Surr: Dibromofluoromethane	11		10.00		107	70	130			
Surr: Toluene-d8	9.3		10.00		92.6	70	130			

Sample ID: <b>mb 2</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8260: Volatiles Short List</b>								
Client ID: <b>PBW</b>	Batch ID: <b>SL90188</b>	RunNo: <b>90188</b>								
Prep Date:	Analysis Date: <b>8/10/2022</b>	SeqNo: <b>3216150</b>	Units: <b>µg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11		10.00		112	70	130			
Surr: 4-Bromofluorobenzene	9.6		10.00		96.2	70	130			
Surr: Dibromofluoromethane	11		10.00		106	70	130			
Surr: Toluene-d8	9.2		10.00		92.4	70	130			

**Qualifiers:**

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- J Analyte detected below quantitation limits
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- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>ics-2 98.9uS eC</b>	SampType: <b>ics</b>		TestCode: <b>SM2510B: Specific Conductance</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>A90176</b>		RunNo: <b>90176</b>							
Prep Date:	Analysis Date: <b>8/10/2022</b>		SeqNo: <b>3215546</b>		Units: <b>µmhos/cm</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	100	10	98.90	0	105	85	115			

Sample ID: <b>ics-1 98.9uS eC</b>	SampType: <b>ics</b>		TestCode: <b>SM2510B: Specific Conductance</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R90216</b>		RunNo: <b>90216</b>							
Prep Date:	Analysis Date: <b>8/11/2022</b>		SeqNo: <b>3217427</b>		Units: <b>µmhos/cm</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity	99	10	98.90	0	99.7	85	115			

**Qualifiers:**

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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
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# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

**Client:** Safety & Environmental Solutions

**Project:** Inex Pit

Sample ID: <b>mb-1 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R90262</b>	RunNo: <b>90262</b>								
Prep Date:	Analysis Date: <b>8/12/2022</b>	SeqNo: <b>3219467</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>ics-1 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R90262</b>	RunNo: <b>90262</b>								
Prep Date:	Analysis Date: <b>8/12/2022</b>	SeqNo: <b>3219468</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.40	20.00	80.00	0	98.0	90	110			

Sample ID: <b>mb-2 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R90262</b>	RunNo: <b>90262</b>								
Prep Date:	Analysis Date: <b>8/12/2022</b>	SeqNo: <b>3219490</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>ics-2 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R90262</b>	RunNo: <b>90262</b>								
Prep Date:	Analysis Date: <b>8/12/2022</b>	SeqNo: <b>3219491</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	78.36	20.00	80.00	0	98.0	90	110			

Sample ID: <b>mb-3 alk</b>	SampType: <b>mblk</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>PBW</b>	Batch ID: <b>R90262</b>	RunNo: <b>90262</b>								
Prep Date:	Analysis Date: <b>8/12/2022</b>	SeqNo: <b>3219513</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	ND	20.00								

Sample ID: <b>ics-3 alk</b>	SampType: <b>ics</b>	TestCode: <b>SM2320B: Alkalinity</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>R90262</b>	RunNo: <b>90262</b>								
Prep Date:	Analysis Date: <b>8/12/2022</b>	SeqNo: <b>3219514</b>	Units: <b>mg/L CaCO3</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaCO3)	77.56	20.00	80.00	0	97.0	90	110			

**Qualifiers:**

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- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix interference
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- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 2208429

09-Sep-22

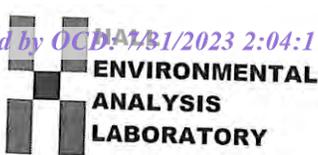
**Client:** Safety & Environmental Solutions  
**Project:** Inex Pit

Sample ID: <b>MB-69430</b>	SampType: <b>MBLK</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>PBW</b>	Batch ID: <b>69430</b>	RunNo: <b>90232</b>								
Prep Date: <b>8/11/2022</b>	Analysis Date: <b>8/12/2022</b>	SeqNo: <b>3218065</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID: <b>LCS-69430</b>	SampType: <b>LCS</b>	TestCode: <b>SM2540C MOD: Total Dissolved Solids</b>								
Client ID: <b>LCSW</b>	Batch ID: <b>69430</b>	RunNo: <b>90232</b>								
Prep Date: <b>8/11/2022</b>	Analysis Date: <b>8/12/2022</b>	SeqNo: <b>3218066</b>	Units: <b>mg/L</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	996	20.0	1000	0	99.6	80	120			

**Qualifiers:**

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Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

# Sample Log-In Check List

Client Name: Safety & Environmental Solutions

Work Order Number: 2208429

RcptNo: 1

Received By: Tracy Casarrubias 8/6/2022 10:30:00 AM

Completed By: Tracy Casarrubias 8/6/2022 3:12:10 PM

Reviewed By: *suu 8/8/22*

### Chain of Custody

- 1. Is Chain of Custody complete? Yes  No  Not Present
- 2. How was the sample delivered? Courier

### Log In

- 3. Was an attempt made to cool the samples? Yes  No  NA
- 4. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 5. Sample(s) in proper container(s)? Yes  No
- 6. Sufficient sample volume for indicated test(s)? Yes  No
- 7. Are samples (except VOA and ONG) properly preserved? Yes  No
- 8. Was preservative added to bottles? Yes  No  NA
- 9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes  No  NA
- 10. Were any sample containers received broken? Yes  No
- 11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 12. Are matrices correctly identified on Chain of Custody? Yes  No
- 13. Is it clear what analyses were requested? Yes  No
- 14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes  No

# of preserved bottles checked for pH:

*8*  
<2 or >12 unless noted  
Adjusted? *yes*

Checked by: *KPa 8.08.22*

### Special Handling (if applicable)

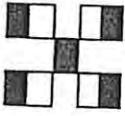
- 15. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

16. Additional remarks: *Added 0.2 ml of H2SO4 to samples*

17. Cooler Information *001B for pH <2 - KPa 8.08.22*

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good	Yes			
2	1.0	Good	Yes			



# HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Chain-of-Custody Record

Client: Safety & Environmental Solutions

Mailing Address: 703 E. Chilton  
Albuquerque, N.M.

Phone #: 575-397-0570

email or Fax#:

Turn-Around Time:

Standard  Rush

Project Name: EOG

Inex Pd

Project #: YAT-04-003

Project Manager: Boyer, Dave

Sampler: Sam Juny

On Ice:  Yes  No

# of Coolers: 2

Cooler Temp (including ice): 09 to 23 C

Container Type and #

Preservative Type

HEAL No.

6 Jae 001

6 HAB3 002

6 H2SO4 003

6 --- 004

### Analysis Request

BTEX / MTBE / TMBs (8021)	
TPH:8015D(GRO / DRO / MRO)	
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	
Cl, F, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	
BTEX Naphthalenes	X
Ureide Dissolved Metals	X
(Arros, Arros)	X
IDS Lab Release	X
Lab PH	X
Lab Cnd	X

Received by: Sam Juny Date: 8/16/22 Time: 10:30

Received by: Sam Juny Date: 8/16/22 Time: 10:30

Received by: Sam Juny Date: 8/16/22 Time: 10:30

Remarks: Ball EOG Aired

ATTN: CHASE SEATTLE

If necessary, samples submitted to Hall Environmental may be subject to other unannounced inspections. This notice is a notice of this practice.

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS

Action 246212

**CONDITIONS**

Operator: EOG RESOURCES INC 5509 Champions Drive Midland, TX 79706	OGRID: 7377
	Action Number: 246212
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
michael.buchanan	Site Chronology and Status Update for Inex Pit is accepted for the record. A meeting with NMOCD is advised to be set up in the future for discussion and a path forward.	4/30/2024