
ALTERNATIVE SOURCE DEMONSTRATION REPORT

2025 SECOND SEMIANNUAL EVENT TEXAS STATE CCR RULE

**Welsh Power Plant
Bottom Ash Storage Pond
Registration No. CCR 110
Pittsburg, Texas**

Prepared for

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Project CHA1147K

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LIST OF ACRONYMS AND ABBREVIATIONS

AEP	American Electric Power
ASD	alternative source demonstration
BASP	Bottom Ash Storage Pond
CCR	coal combustion residuals
EPRI	Electric Power Research Institute
GWPS	groundwater protection standard
HDPE	high-density polyethylene
LCL	lower confidence limit
PBAP	Primary Bottom Ash Pond
PC	principal components
PCA	Principal Component Analysis
pCi/g	picocuries per gram
pCi/L	picocuries per liter
SSI	statistically significant increase
SSL	statistically significant level
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDS	total dissolved solids
Welsh Plant	Welsh Power Plant

1. INTRODUCTION AND SUMMARY

This alternative source demonstration (ASD) report has been prepared to address statistically significant levels (SSLs) for combined radium in the groundwater monitoring network at the Bottom Ash Storage Pond (BASP) located at the Welsh Power Plant (Welsh Plant) in Pittsburg, Texas, following the second semiannual monitoring event of 2025. The Welsh Plant has three coal combustion residuals (CCR) storage units regulated by the Texas Commission on Environmental Quality (TCEQ) under Registration No. CCR 110, including the BASP (**Figure 1**). CCR was removed from the BASP prior to the September 2025 monitoring event, and the other two CCR units are still active.

The September 2025 semiannual monitoring event at the BASP monitoring well network followed monitoring protocols for Appendix IV constituents in accordance with the Texas Administrative Code (TAC) Title 30, §352.951(a) [30 TAC §352.951(a)]. The monitoring data was submitted to Groundwater Stats Consulting, LLC for statistical analysis. Confidence intervals were recalculated for the Appendix IV parameters at the compliance wells to assess whether these constituents were present at SSLs above the groundwater protection standards (GWPSs) for the constituents. An SSL was concluded if the lower confidence limit (LCL) of a constituent exceeded the GWPS (i.e., if the entire confidence interval exceeded the GWPS). The following SSL was identified at the Welsh BASP (Geosyntec 2025):

- The LCL for combined radium was above the GWPS of 5.00 picocuries per liter (pCi/L) at AD-16R (5.48 pCi/L).

No other Appendix IV SSLs were identified.

1.1 CCR Rule Requirements

TCEQ regulations regarding assessment monitoring programs for CCR landfills and surface impoundments provide owners and operators with the option to make an ASD when an SSL is identified:

In making a demonstration under this subsection, the owner or operator must, within 90 days of detecting a statistically significant level above the groundwater protection standard of any constituent listed in Appendix IV adopted by reference in §352.1431 of this title, submit a report prepared and certified in accordance with §352.4 of this title (relating to Engineering and Geoscientific Information) to the executive director, and any local pollution agency with jurisdiction that has requested to be notified, demonstrating that a source other than a CCR unit caused the exceedance or that the exceedance resulted from error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. (30 TAC §352.951(e))

Pursuant to 30 TAC §352.951(e), Geosyntec Consultants, Inc. (Geosyntec) has prepared this ASD report to document that the SSL identified for combined radium in the groundwater monitoring network for the BASP is from a source other than the BASP.

1.2 Demonstration of Alternative Sources

An evaluation was completed to assess possible alternative sources to which the identified SSL may be attributed. Alternative sources were categorized into the following five types, based on methods provided by the Electric Power Research Institute (EPRI 2017):

- ASD Type I: Sampling Causes
- ASD Type II: Laboratory Causes
- ASD Type III: Statistical Evaluation Causes
- ASD Type IV: Natural Variation
- ASD Type V: Anthropogenic Sources

A demonstration was conducted to show that the identified SSL at AD-16R was based on Type IV (natural variation) causes and not by a release from the BASP.

2. SUMMARY OF SITE CONDITIONS

The site background summary included in this section was primarily taken from Arcadis (2022), unless otherwise noted.

2.1 BASP Location and Design

The BASP was a 22-acre CCR surface impoundment located in the southern portion of the Welsh Plant, immediately south of the Landfill and Primary Bottom Ash Pond (PBAP) (**Figure 1**). It was designed with approximately 20-foot-high compacted-clay perimeter embankments and a 60-mil-thick high-density polyethylene (HDPE) liner placed over the base of the pond and the interior embankment slopes. The BASP was constructed and placed into operation in 2000 to receive bottom ash and economizer ash dredged and sluiced from the PBAP.

The BASP ceased receipt of CCR materials in 2021 (American Electric Power [AEP] 2021), and the removal of CCR materials, the HDPE liner, and at least 12 inches of underlying soil was completed in 2024 (AEP 2024). On February 13, 2026, the BASP was certified closed by removal in accordance with 30 TAC §352.1221(a) and the most recent closure plan and notification of this was placed in the Operating Record (AEP 2026b). Final review and approval of closure will be determined by TCEQ.

2.2 Regional Geology and Site Hydrogeology

The Welsh Plant is located within the West Gulf Coastal Plain. The BASP is immediately underlain by the Eocene-age Recklaw Formation, which consists of very-fine- to fine-grained sand and clay (Flawn 1966). The Recklaw Formation ranges in thickness from approximately 10 to 110 feet in Titus County, where the Welsh Plant is located. This formation is underlain by the Eocene-age Carrizo Sand, consisting of fine to coarse sand, silt, and clay.

The uppermost aquifer in the vicinity of the BASP consists of an interval of the Recklaw Formation that is approximately 12-feet thick and comprised of very-fine- to fine-grained silty sand and sandy silt. This aquifer is first encountered approximately 8 feet below the base of the BASP (Arcadis 2022). It is recharged primarily through infiltration of regional precipitation. Groundwater flow velocities in the uppermost aquifer in the vicinity of the BASP have been reported as approximately 1–10 feet per year (AEP 2026a).

Monitoring well AD-16R is screened from 12-27 feet below ground surface within the Recklaw Formation. Subsurface lithology near monitoring well AD-16R is shown on geologic cross sections from Arcadis (2022) (**Attachment A**).

2.3 BASP Monitoring Well Network and Flow Conditions

The BASP monitoring well sampling network consists of background monitoring wells AD-1, AD-5, and AD-17 and downgradient compliance monitoring wells AD-3, AD-4C, and AD-16R (**Figure 1**). Well AD-16R was installed in April 2017 to replace well AD-16, which was frequently unable to yield an adequate volume of water for sampling. The groundwater flow direction near the BASP is generally to the southeast (**Figure 2**). Potentiometric groundwater flow maps from sampling events completed within the past two years are provided as **Attachment B**. Seasonal variability in groundwater flow direction has not been observed in the immediate vicinity of the BASP.

3. ALTERNATIVE SOURCE DEMONSTRATION

The ASD evaluation method and proposed alternative source of combined radium at well AD-16R are described below.

3.1 Proposed Alternative Sources

An initial review of groundwater sampling field forms did not identify alternative sources due to a Type I (sampling) issue. A review of the laboratory quality assurance and quality control data and the statistical analyses did not identify any Type II (laboratory) or Type III (statistical evaluation) issues. Groundwater sampling, laboratory analysis, and statistical evaluations were generally completed in accordance with 30 TAC §352.931 and draft TCEQ guidance for groundwater monitoring (TCEQ 2020).

As described below, the SSL for combined radium has been attributed to natural variation, which is a Type IV issue.

3.1.1 Geogenic Radium in Aquifer Solids

Four radium isotopes are observed in nature. Radium-226 and radium-228 are the two most common isotopes due to the short (less than one hour) half-lives of the other two naturally observed isotopes (radium-224 and radium-223). Combined radium as monitored in the groundwater compliance program reflects the sum of the reported radium-226 and radium-228 values.

All radium isotopes are products of radioactive decay: radium-226 is the decay product of uranium-238, and radium-228 is the decay product of thorium-232. Radium in groundwater is therefore generally sourced either directly from a parent phase (uranium or thorium) or mobilized from an existing radium-bearing solid phase (Iyengar 1990, Ku et al. 1992).

Aquifer solids samples were collected from soil borings advanced adjacent to compliance monitoring well AD-16R and background monitoring well AD-17 in December 2024. Two samples were collected at depths associated with the screened interval for each of the two monitoring wells, and analyzed for total solid phase boron, uranium, thorium, radium-226, and radium-228. The laboratory analytical report is included as **Attachment C** and results are summarized in **Table 1**. Solid phase uranium and thorium were detected in both samples collected near compliance well AD-16R as well as both samples collected near background well AD-17, indicating that radium parent phases are present in aquifer solids both upgradient and downgradient of the BASP (**Table 1**). Uranium and thorium parent phases constitute potential alternative sources of aqueous radium via radioactive decay.

Further, radium-226 and radium-228 isotopes were both directly detected in AD-16R and AD-17 solid phase samples at combined radium concentrations ranging from 0.90 picocuries per gram (pCi/g) to 2.84 pCi/g. Solid-phase radium constitutes an additional potential source of radium to groundwater via mobilization through mineral dissolution (typically co-precipitated radium within crystal structures of sulfate salts and/or metal oxides) or desorption from solids. The occurrence of these constituents in aquifer solids both upgradient and downgradient of the BASP indicate that sources of radium in groundwater are naturally ubiquitous in the subsurface of the Welsh Plant.

Soil samples were collected at 21 locations within the former BASP footprint following the removal of overlying CCR material, the HDPE liner, and 12 inches of underlying soil during

closure activities. Of these samples, 11 were analyzed for solid-phase combined radium (**Attachment D**). Combined radium was detected above the reporting limit in every sample analyzed at concentrations ranging from 1.26 pCi/g to 2.43 pCi/g. These concentrations are comparable to those detected in aquifer solids samples from AD-16R and AD-17 (**Table 1**), indicating that solid-phase combined radium is not elevated in soils that were previously underlying CCR materials relative to background solids. This observation suggests that a component of combined radium exists naturally in soils and aquifer solids throughout the Welsh plant, rather than from a release from the CCR unit.

3.1.2 Radium Solubility at AD-16R

Aqueous radium is moderately soluble in most natural waters, with solubility governed strongly by sulfate complexation and aqueous pH (Iyengar 1990). Aqueous radium is known to be enriched in low pH water (Iyengar 1990, Sanchez et al. 1999) due primarily to the thermodynamic instability of sulfate salt complexes at low pH. These complexes have a high affinity for co-precipitation of aqueous radium at circumneutral pH values. Additionally, the association between aqueous radium and pH has been linked to adsorption efficiency to high surface area and electrical charge lithologic materials (i.e., clays, such as those comprising the bulk of the Recklaw formation). Lower pH environments can cause lower adsorption efficiency and consequently result in elevated aqueous radium concentrations (Lindsey et al. 2021). pH levels at monitoring well AD-16R are consistently lowest among all monitoring wells in the BASP network (**Figure 3**). Low pH values at AD-16R generally correlate with elevated combined radium concentrations (**Figure 4**), suggesting radium mobilization is greater under these lower pH conditions.

3.1.3 Comparison of Combined Radium in BASP Pond Water and Groundwater

The BASP is not a likely source of combined radium in downgradient groundwater at AD-16R, as a 2020 BASP pond water sample contained lower combined radium concentrations than those reported at AD-16R since monitoring began. The BASP pond water sample contained a combined radium concentration of 0.501 pCi/L (**Attachment E**). This value is approximately six times lower than the minimum combined radium value of 2.98 pCi/L detected at AD-16R and approximately 70 times lower than the maximum value detected at the well. Similarly, combined radium concentrations at monitoring well AD-14, which is in the Landfill monitoring network and immediately upgradient of AD-16R (**Figure 2**), are consistently lower than those observed at AD-16R (**Figure 5**). Given that the reported combined radium concentrations at AD-16R are greater than both the reported result at the potential CCR source (i.e., BASP) and the compliance well located immediately upgradient of AD-16R closer to potential CCR sources, the BASP does not appear to be a likely source of the elevated combined radium in groundwater at AD-16R.

3.1.4 AD-16R Boron Stability

Boron is a geochemically conservative parameter that functions as a tracer to evaluate the potential for CCR unit releases because of its limited attenuation by chemical processes (e.g., sorption, precipitation) during groundwater flow. After an increasing trend of boron concentrations was identified at monitoring well AD-4C (**Figure 6**), and a reported statistically significant increase (SSI) for boron was not attributed to an alternative source, the site transitioned from detection to assessment monitoring (AEP 2026a).

This boron trend at AD-4C suggests that boron effectively serves as an indicator of CCR impacts to groundwater downgradient of the BASP. This is particularly true for the BASP given the higher

boron concentrations reported in the pond water compared to downgradient monitoring locations (**Figure 6**). Two samples were collected from a ditch discharging water from the BASP to the Landfill in 2016 and an additional sample was collected from the impounded water at the BASP in 2020 (**Attachment E**).¹

If BASP pond water, which has boron concentrations almost two orders of magnitude greater than groundwater at monitoring well AD-16R in recent years, were impacting the groundwater quality at downgradient monitoring wells, an increase in boron concentrations at AD-16R similar to the trend observed at AD-4C would be expected. However, boron concentrations do not display an increasing trend at AD-16R (**Figure 6**), and are similar to the reported concentrations at AD-3, which is the other BASP compliance well. These findings indicate the variations in groundwater quality observed for AD-16R should not be attributed to a release from the BASP.

Despite the increasing boron concentrations, groundwater at monitoring well AD-4C does not have any SSLs of Appendix IV constituents. Conversely, while an SSL was reported at AD-16R for the second semiannual event of 2025, SSIs of Appendix III constituents were not reported at AD-16R during the most recent semiannual detection monitoring event prior to the transition to assessment monitoring (AEP 2026a). This lack of relationship between Appendix III and Appendix IV exceedances suggests that the identified Appendix IV exceedances are not likely attributable to a release from the BASP.

3.1.5 AD-16R Groundwater Geochemical Signature

The groundwater composition of AD-16R was compared to both the BASP pond water and the other downgradient locations via principal component analysis (PCA) to assess whether AD-16R is similar to other unimpacted groundwater monitoring locations. PCA uses a broad suite of analytes to evaluate the similarity or dissimilarity of different samples or groups and identify analytes that are main drivers for dissimilarities (Mumford et al., 2007).

PCA is often used to simplify large datasets with multiple variables by creating new uncorrelated variables known as principal components (PCs). Each PC represents a new synthetic variable defined as a weighted linear combination of the original variables. The first PC is the linear combination that captures the greatest possible variance in the data set. The second PC captures the greatest remaining variance subject to being orthogonal to the first PC, and so on for higher PCs.

Mathematically, this is described by the projection equation, $\mathbf{z} = \mathbf{X}\mathbf{w}$ where, \mathbf{X} is the standardized data matrix, \mathbf{w}_k is the vector of weights defining the k -th PC (constrained such that the sum of the squares of all weights equals one), and z_k is the resulting PC score, i.e., the “coordinate” of each point with respect to the k -th PC. The weight vector \mathbf{w}_k is chosen such that the variance of z_k is maximized, subject to orthogonality constraints discussed above.²

¹ Combined radium was not included in the reported analytes for the 2016 samples; therefore, these samples were excluded from the discussion in Section 3.1.3.

² This simplified projection and variance-maximization formulation is equivalent to the conventional PCA solution based on eigendecomposition of the covariance matrix; standard derivations are provided in multivariate statistics textbooks.

Factor loadings are calculated based on the correlation between PCs and the original variables. As such, variables with notably higher positive or negative factor loadings are main drivers of similarity or dissimilarity and clustering of samples. Factor scores are calculated based on the correlation between the combined chemical composition of each sample and the PCs. Samples with similar chemical compositions show similar factor scores and tend to cluster together on a PCA biplot.

In this ASD, the dataset used for PCA included 88 samples collected between 2016 and 2025 from downgradient wells AD-3, AD-4C and AD-16R, and BASP water. The data was split into the following groups:

- BASP pond water (including both the 2016 discharge sampling and 2020 pond water sample) to represent the potential CCR source.
- AD-16R to represent the well of interest.
- AD-3 to represent unimpacted downgradient conditions.
- AD-4C from 2016 to 2022 to represent unimpacted downgradient conditions.
- AD-4C from 2023 to 2025 to represent downgradient groundwater which is influenced by the CCR source. As noted in Section 3.1.4, increasing boron concentrations and identified SSIs indicated that groundwater at AD-4C is likely impacted by the BASP.

Analytes included in this PCA include barium, boron, calcium, chloride, fluoride, sulfate, and total dissolved solids (TDS). The dataset used for PCA analysis is provided with this submission as **Attachment F**. PCA requires that input variables have similar scales of measurement and variances. As such, data were standardized by mean-centering and scaling to unit variance prior to performing PCA.

The fraction of total variation explained by each PC is shown in **Figure 7a**, with the first two PCs (Dimensions 1 and 2 on **Figure 7a**) accounting for approximately 73 percent (%) of the total variation in the datasets. Additionally, the quality of representation of each variable is presented in **Figure 7b**, demonstrating that most analytes (except barium and fluoride) had relatively similar contributions to the first dimension, whereas the second dimension was primarily dominated by fluoride and barium.

PCA results are often visualized using biplots, where samples are projected on to the first two PCs (i.e., factor scores), and factor loadings are represented as vectors. The first PC scores are shown on the x-axis, while the second PC scores are represented on the y-axis in the biplot. The closer the data points are on the graph, the greater the similarity in their chemical composition. The biplot of PCA results from this study is shown on **Figure 8**, where the downgradient samples (except AD-4C [2023 – 2025]) are in dark blue, AD-4C (2023 – 2025) in orange, and the BASP water samples in gray. The factor loadings, represented as vectors on the biplot, indicate that constituents such as boron, calcium, chloride, sulfate and TDS are responsible for shifting the chemical signature of samples towards the BASP pond water cluster. In contrast, constituents such as barium and fluoride are the main drivers for shifting chemical composition in the direction of the downgradient samples.

As illustrated in the biplot (**Figure 8**), the BASP pond water samples cluster separately from the unimpacted downgradient wells. The biplot shows no overlap between the 95% bivariate data ellipses for: (i) BASP water samples from within the BASP in gray, (ii) downgradient groundwater samples from AD-4C (2023 – 2025) in orange (represented by the orange ellipse), and (iii) downgradient groundwater samples from AD-3, AD-4C (2016 – 2022), and AD-16R in dark blue (represented by the dark blue ellipse). The PCA demonstrates that downgradient samples generally cluster together, indicating that the chemical composition of the downgradient samples from AD-16R is relatively similar to other unimpacted downgradient samples from AD-3 and AD-4C. The more recent AD-4C samples plot separately from the AD-16R results, providing an indication of how potential CCR impacts at AD-16R would be reflected in the PCA. However, AD-16R composition remains consistent with the other unimpacted downgradient locations included in the blue ellipse, suggesting its groundwater composition is not influenced by the BASP.

3.2 Conceptual Site Model

Radium parent phases uranium and thorium were detected in aquifer solids at depths associated with monitoring well screened intervals in both background and compliance locations within the BASP network. Solid-phase radium isotopes radium-226 and radium-228 were also both detected in these solids, indicating that radium parent phases and radium isotopes are ubiquitous within aquifer solids across the Welsh Plant. The lower groundwater pH at AD-16R results in increased solubility (greater aqueous concentrations) of detected geogenic radium and parent phases within aquifer solids at this location. Further, lower pH groundwater conditions observed at AD-16R can cause lower adsorption efficiency of radium to the bulk clay comprising the Recklaw formation, resulting in increased aqueous radium mobility.

Additionally, the low combined radium reported value in BASP water and the low conservative CCR indicator constituents at AD-16R groundwater do not suggest influence from former BASP water. This is further supported via a review of the groundwater composition at AD-16R compared to BASP water and other monitoring locations via PCA. Rather, the combined radium concentrations at AD-16R are attributed to the natural conditions at this location as described above (Type IV cause).

4. CONCLUSIONS AND RECOMMENDATIONS

The preceding information serves as the ASD prepared in accordance with 30 TAC §352.951(e) and supports the position that the combined radium SSL at AD-16R identified during the second semiannual monitoring event of 2025 should be attributed to natural variation and not to a release from the Welsh BASP. Therefore, no further action is warranted. Certification of this ASD by a qualified professional engineer is provided in **Attachment G**.

5. REFERENCES

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TABLES

**Table 1 - Aquifer Solids Analytical Results Summary
Alternative Source Demonstration - 2nd Event 2025
Welsh Bottom Ash Storage Pond**

Adjacent Monitoring Well	AD-16R		AD-17	
	Compliance		Background	
Well Type	14-15	19-20	29-30	33-34
Depth (feet bgs)				
Boron	<1.84	1.93	5.05	<1.81
Thorium	3.93	6.89	5.84	1.52
Uranium	0.436	1.13	1.75	0.325 J
Radium-226	1.04	1.32	1.20	0.526
Radium-228	1.37	1.52	1.21	0.372
Combined Radium	2.41	2.84	2.41	0.90

Notes:

1. Boron, thorium, and uranium are shown in units of milligrams per kilogram (mg/kg).
2. Radium-226 and radium-228 are shown in units of picocuries per gram (pCi/g).
3. Combined radium represents the sum of the radium-226 and radium-228 reported values.

bgs: below ground surface

J: Result is less than the reporting limit but greater than or equal to the method detection limit. Result is an approximate value.

<: Result is less than the indicated method detection limit.

FIGURES



- Legend**
- ◆ Downgradient Sampling Location
 - ◆ Background Sampling Location
 - CCR Units

- Notes**
1. Monitoring well coordinates provided by AEP.
 2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis, 2022).
 3. Aerial imagery provided by the TxGIO DataHub (dated 2024).
 4. AEP: American Electric Power.
 5. CCR: coal combustion residuals.



Site Layout Bottom Ash Storage Pond		Figure 1
AEP Welsh Power Plant Cason, Texas		
Geosyntec consultants		
Columbus, Ohio	2026/03/24	



- Legend**
- Groundwater Monitoring Well
 - Groundwater Elevation Contour
 - Groundwater Elevation Contour (Inferred)
 - Approximate Groundwater Flow Direction
 - CCR Units

- Notes**
1. Monitoring well coordinates and water level data (collected from September 2 - 4, 2025) provided by AEP.
 2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2022).
 3. Groundwater elevation units are feet above mean sea level (ft amsl).
 4. Aerial imagery provided by the TxGIO DataHub (dated 2024).
 5. AEP: American Electric Power.
 6. CCR: coal combustion residuals.



Beth Ann Gross

January 26, 2026

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**Groundwater Potentiometric Map
September 2025**

AEP Welsh Power Plant
Cason, Texas

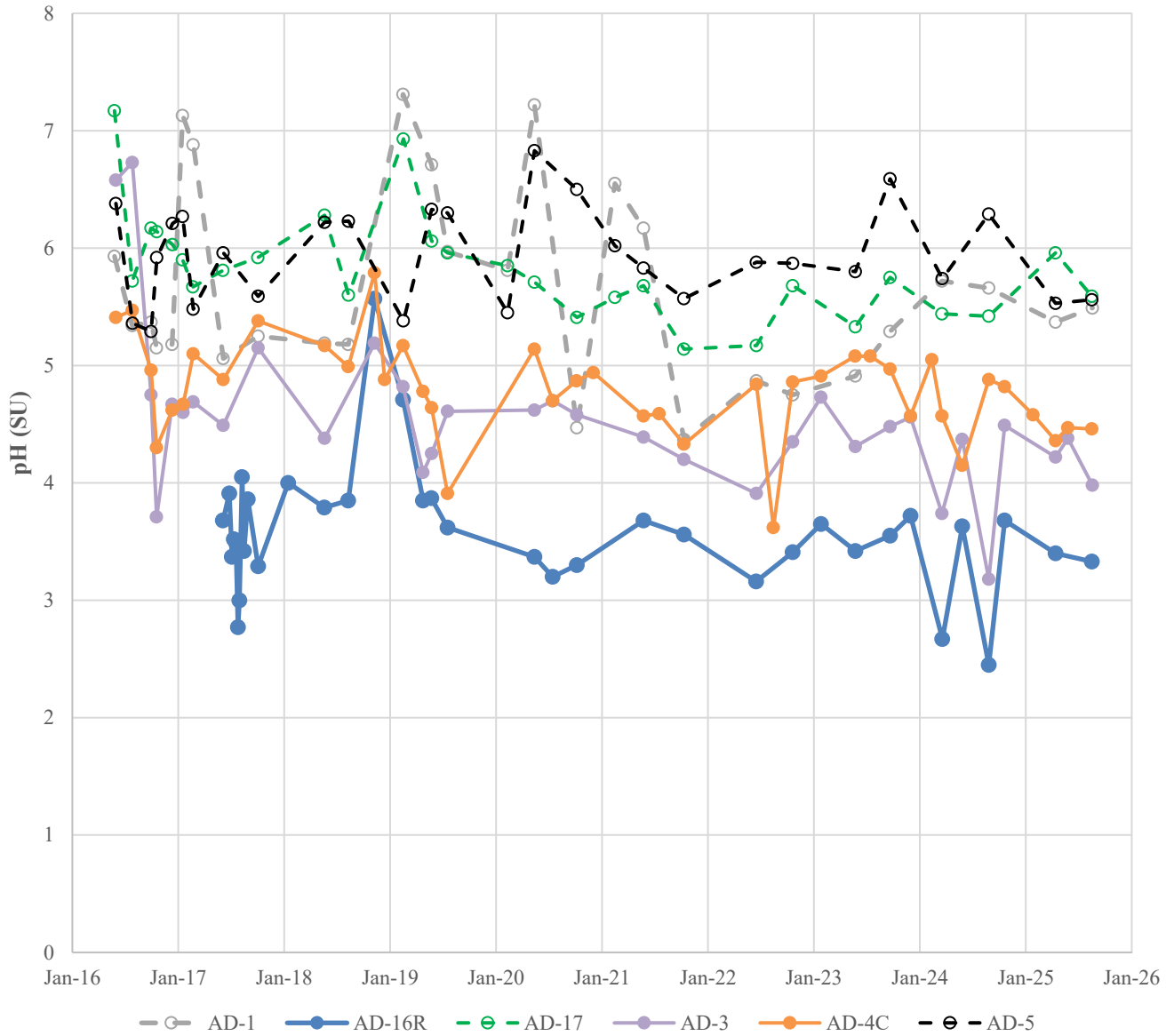
Geosyntec
consultants

Figure

2

Columbus, Ohio

2025/10/15



Notes: pH time series diagram for Bottom Ash Storage Pond (BASP) background wells AD-1, AD-5, and AD-17 (dashed lines) and downgradient wells AD-16R, AD-3, and AD-4C (solid lines). Data collected as part of the federal coal combustion residuals (CCR) program. Results are shown in standard units (SU).

pH Time Series Graph
Welsh Bottom Ash Storage Pond

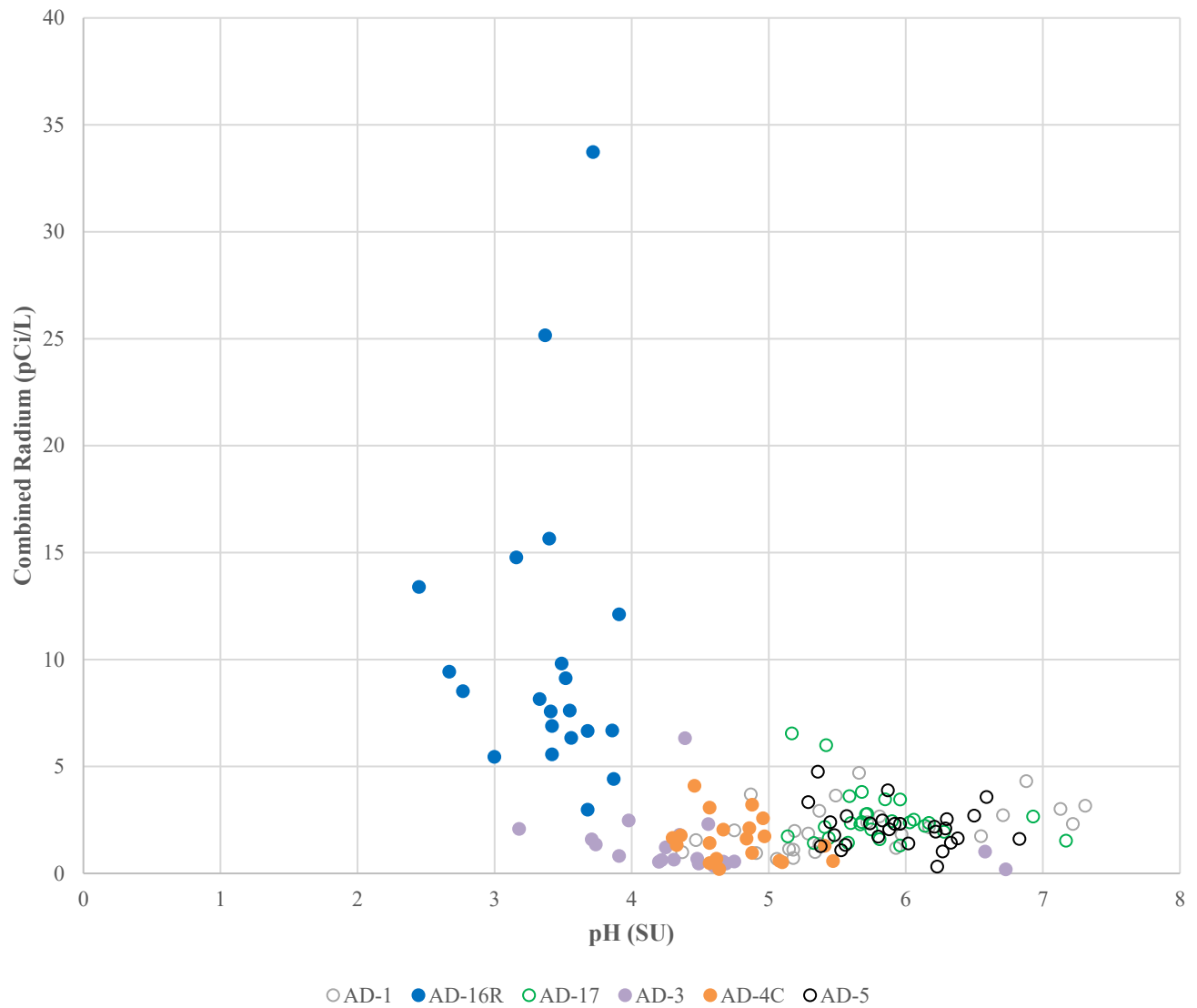
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Figure
3

Columbus, Ohio

March 2026



Notes: Combined radium reflects the summed individual values for radium-226 and radium-228. pH values are measured in the field during monitoring events. Data are collected as part of the federal coal combustion residuals (CCR) program. pH values are shown in standard units (SU). Combined radium values are shown in picocuries per liter (pCi/L).

pH vs Combined Radium Scatter Plot
Welsh Bottom Ash Storage Pond

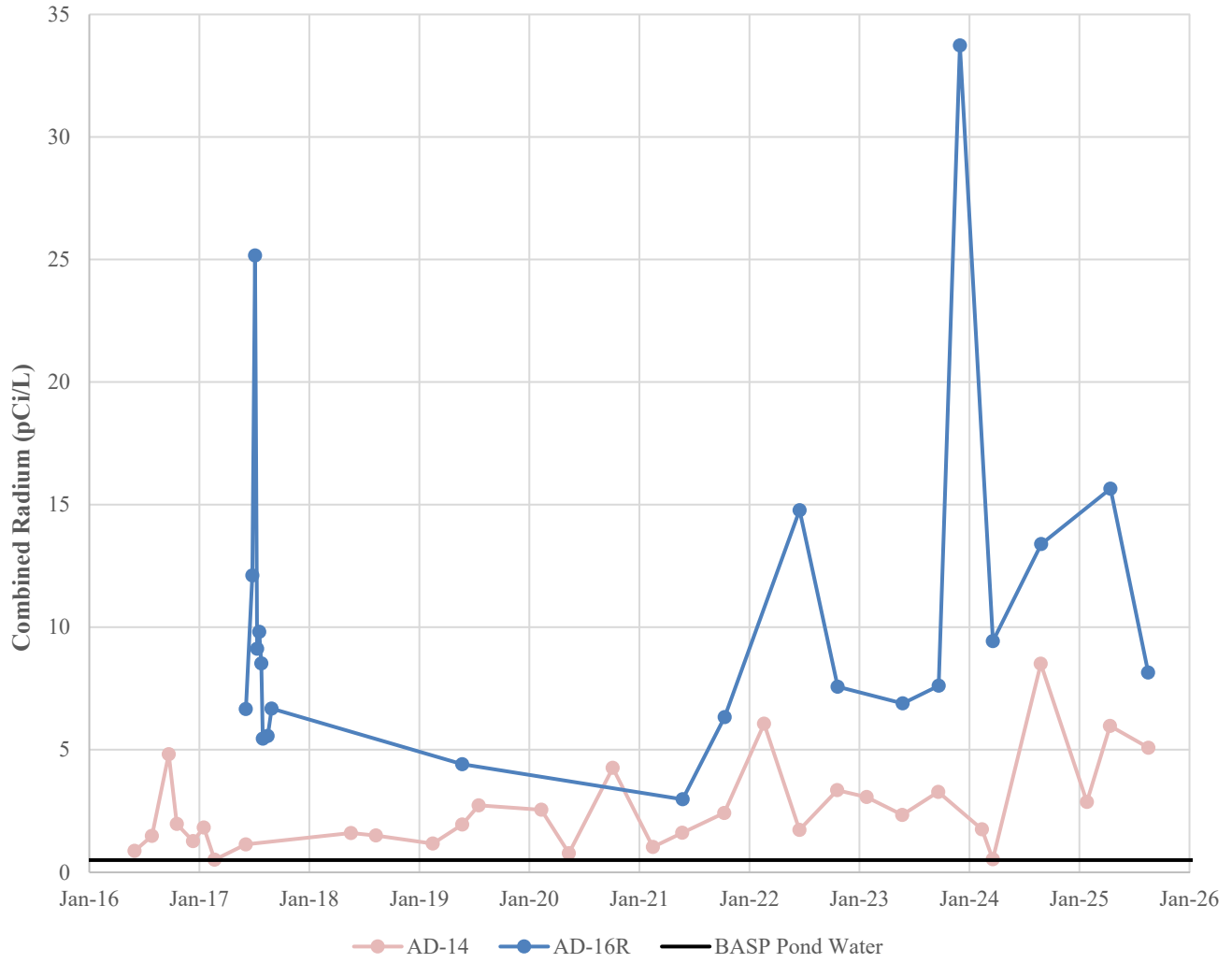
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Figure
4

Columbus, Ohio

March 2026



Notes: Combined radium reflects the summed individual values for radium-226 and radium-228. The value for the Bottom Ash Storage Pond (BASP) pond water sample collected in 2020 is shown as a solid black line. Groundwater data are collected as part of the federal coal combustion residuals (CCR) program. Combined radium results are shown in picocuries per liter (pCi/L).

Combined Radium Time Series Graph
Welsh Bottom Ash Storage Pond

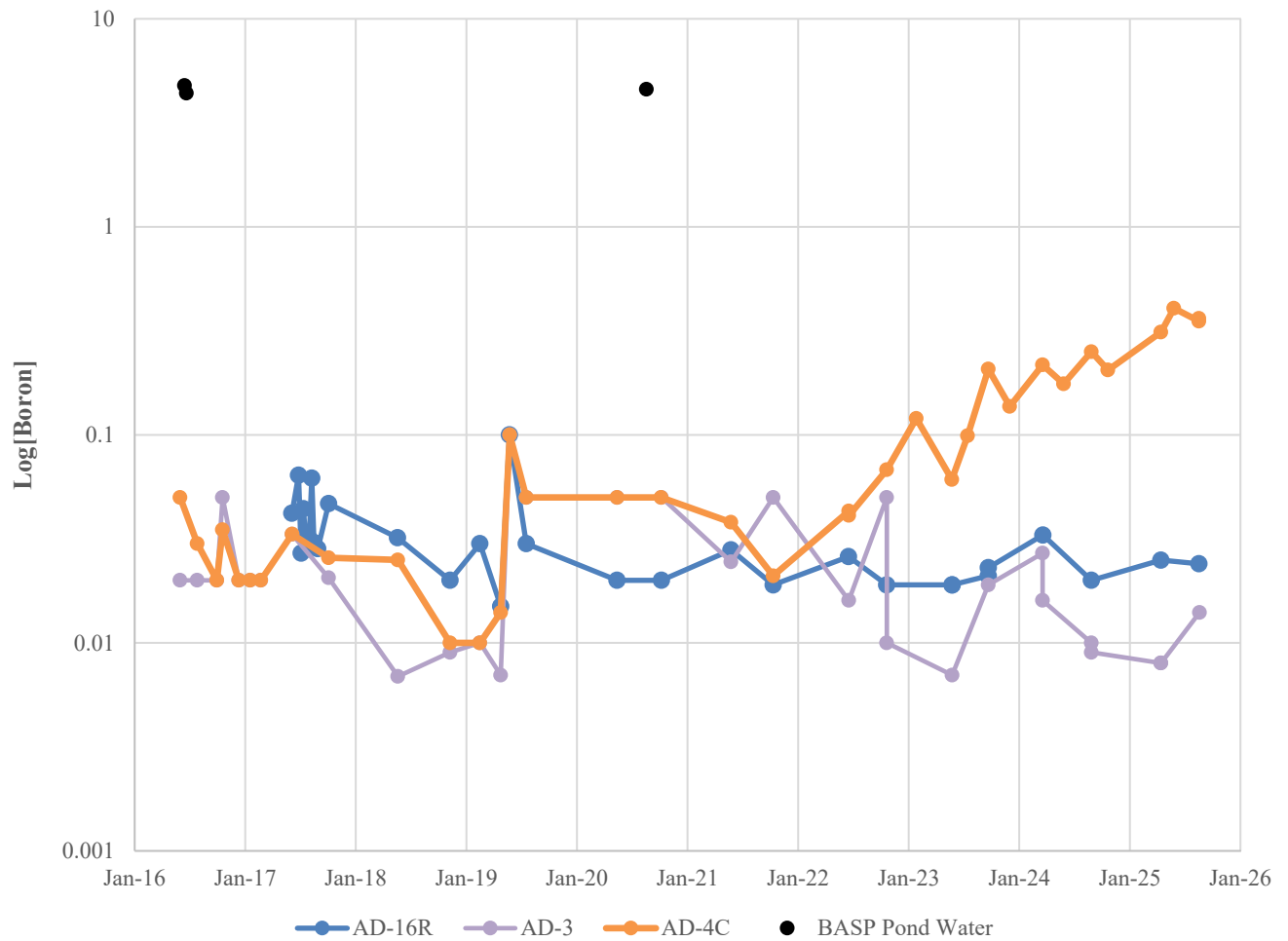
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Figure
5

Columbus, Ohio

March 2026



Notes: Boron time series diagram for Bottom Ash Storage Pond (BASP) pond water and downgradient wells AD-16R, AD-3, and AD-4C. Boron data collected as part of the federal coal combustion residuals (CCR) program. Boron concentrations were originally provided in units of milligrams per liter (mg/L).

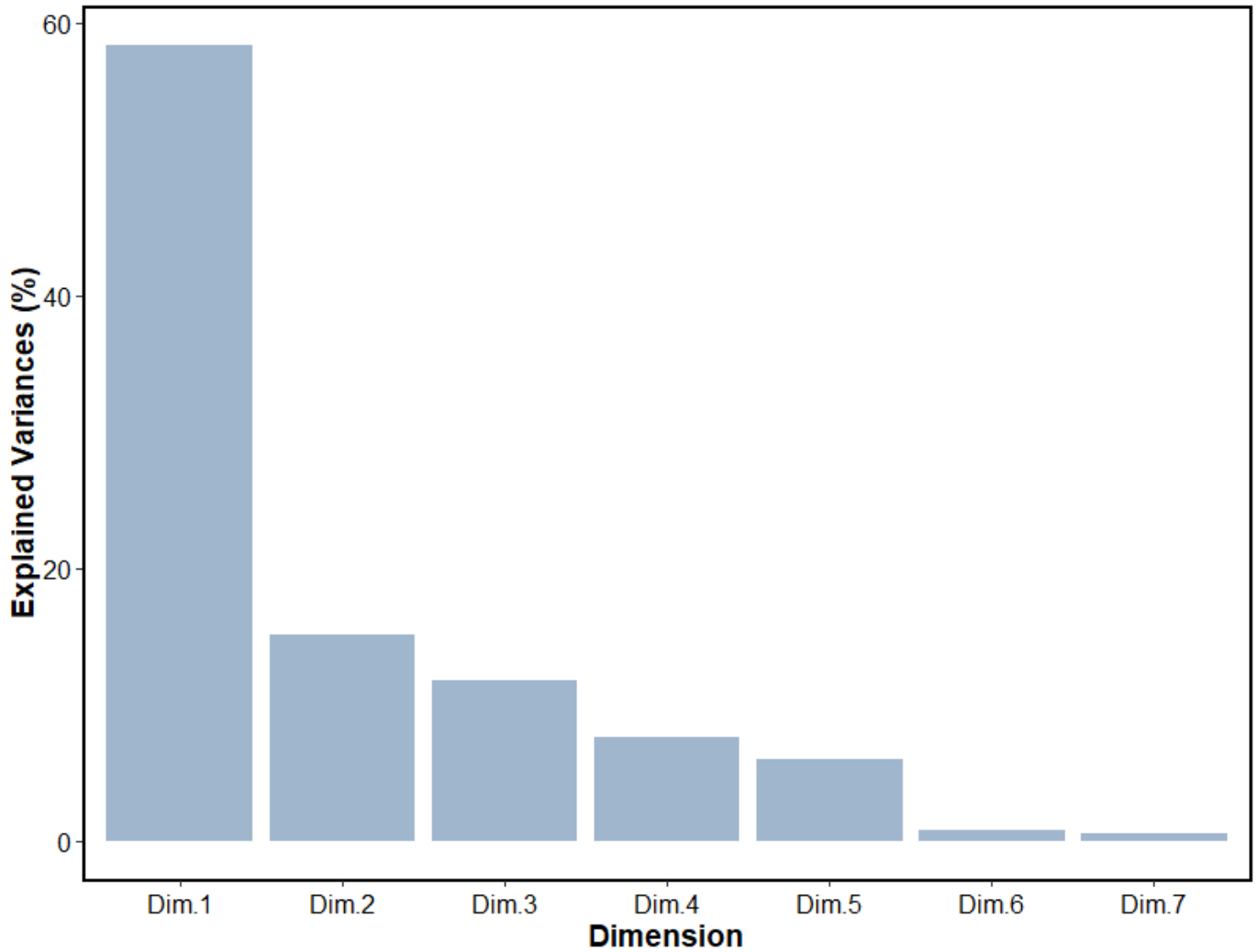
Boron Time Series Graph
Welsh Bottom Ash Storage Pond



Figure
6

Columbus, Ohio

March 2026



Notes: 88 samples collected between 2016 and 2025 from downgradient wells AD-3, AD-4C and AD-16R, and Bottom Ash Storage Pond (BASP) pond water were included in the evaluation.

Principal Component Analysis – Quality of Representation of Principal Components

Welsh Bottom Ash Storage Pond

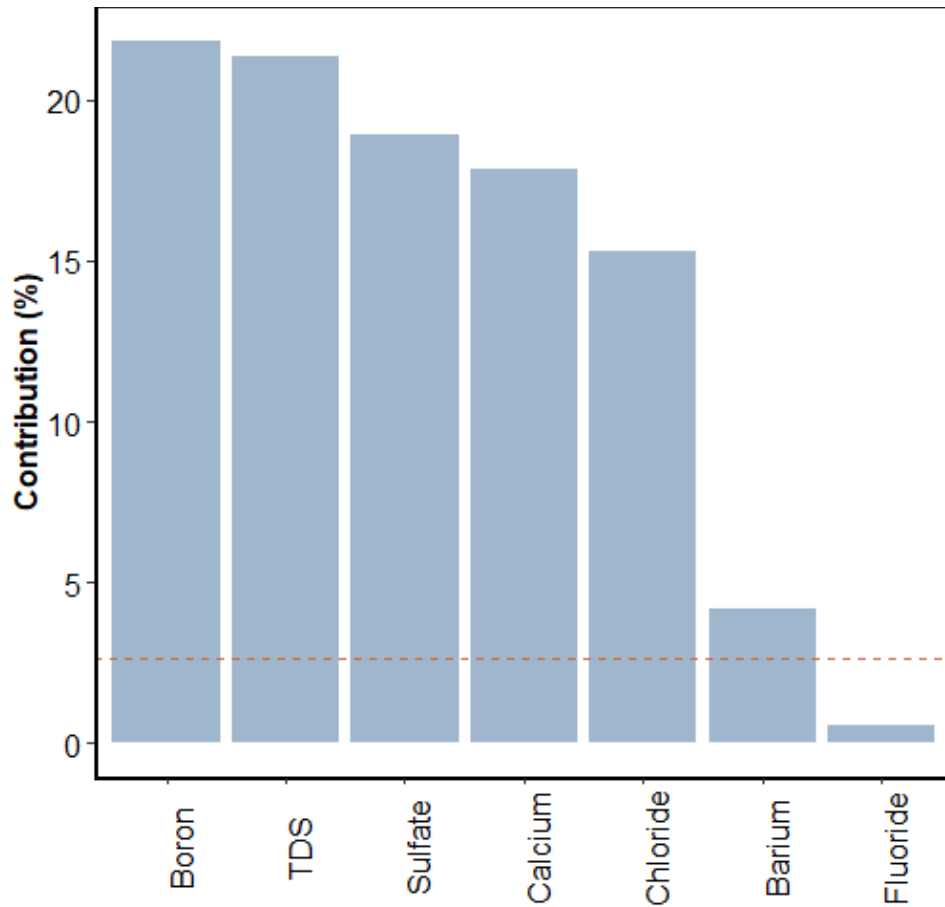


Figure
7a

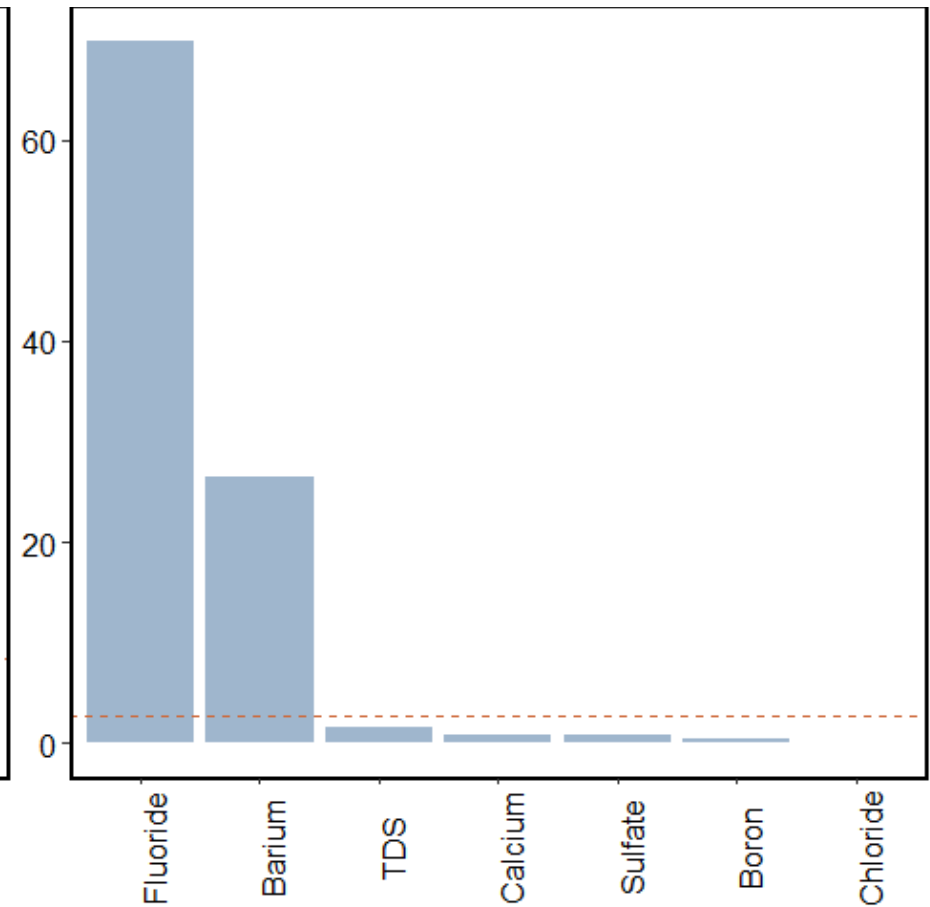
Columbus, Ohio

March 2026

Contribution of Variables to PC-1



Contribution of Variables to PC-2



Notes: The dashed red line represents the anticipated value for uniform contribution. The constituents with a contribution exceeding the reference line are considered significant in its contribution to each PC (principal component).

TDS: total dissolved solids.

Contribution of Variables to First Two Principal Components

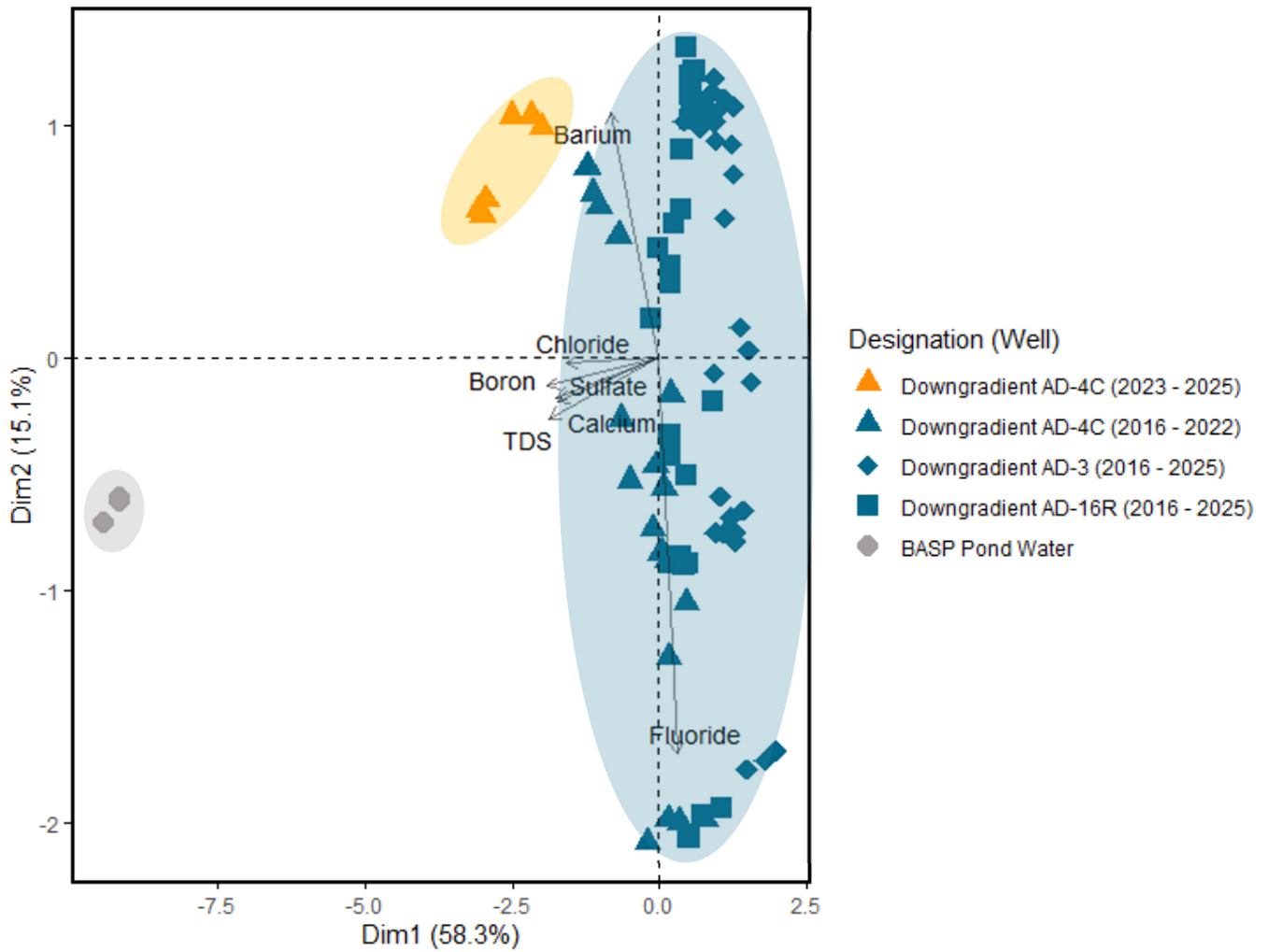
Welsh Bottom Ash Storage Pond



Figure
7b

Columbus, Ohio

March 2026



Notes: The 95% data ellipse for each hydrostratigraphic unit is shown. Gray for Bottom Ash Storage Pond (BASP) pond water, orange for AD-4C (2023–2025), and dark blue for AD-3 (2016–2025), AD-4C (2016–2022) and AD-16R (2016–2025). The vectors signify the correlations between the constituents and the principal components.

Dim – dimension.
TDS – total dissolved solids.

Principal Component Analysis Biplot

Welsh Bottom Ash Storage Pond

Geosyntec
consultants



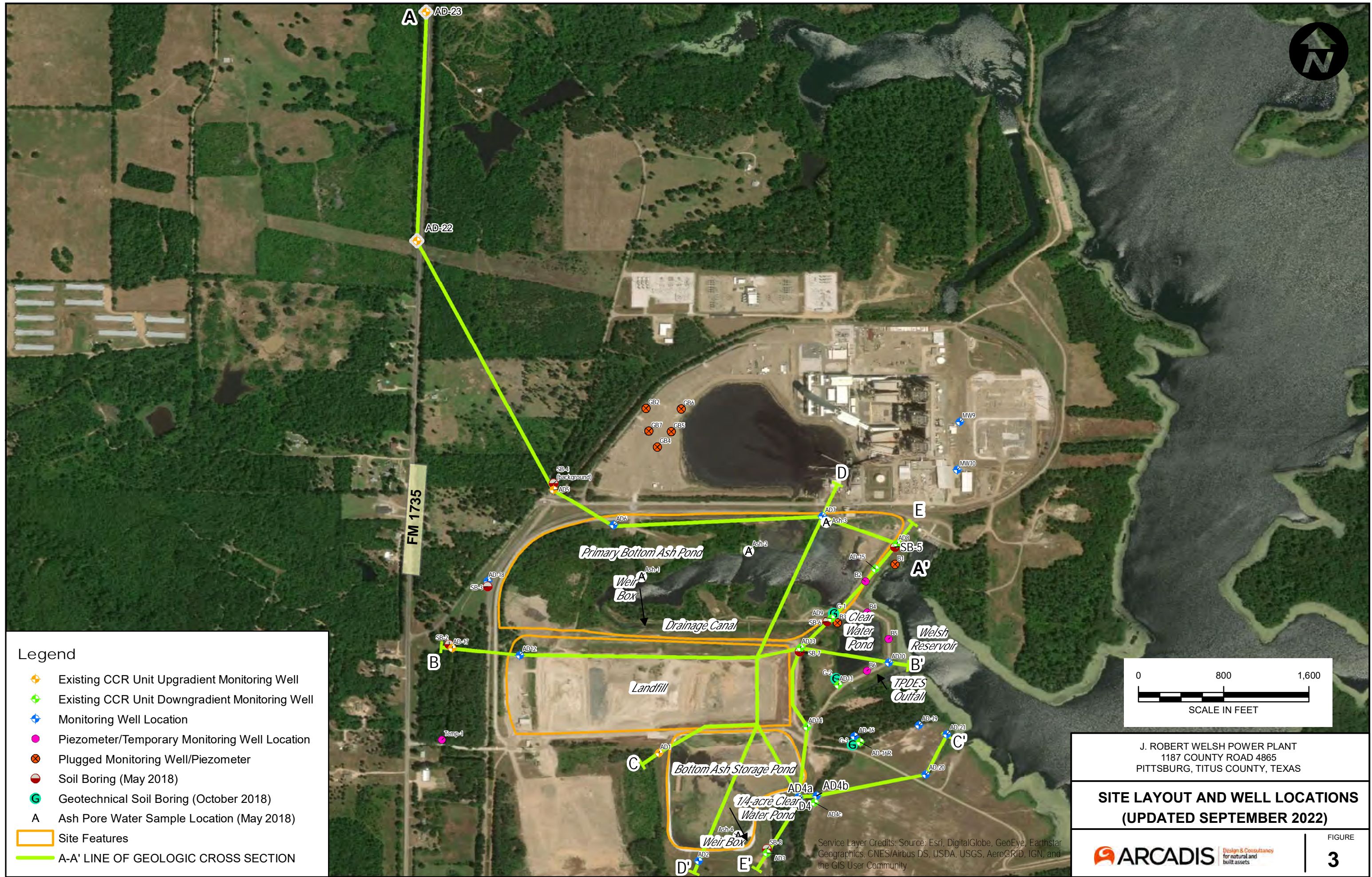
Figure
8

Columbus, Ohio

March 2026

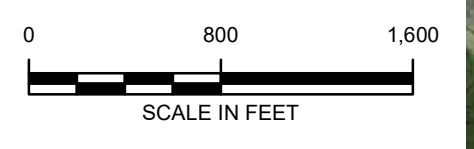
ATTACHMENT A

Geologic Cross Sections



Legend

- ◆ Existing CCR Unit Upgradient Monitoring Well
- ◆ Existing CCR Unit Downgradient Monitoring Well
- ◆ Monitoring Well Location
- ◆ Piezometer/Temporary Monitoring Well Location
- ⊗ Plugged Monitoring Well/Piezometer
- Soil Boring (May 2018)
- Geotechnical Soil Boring (October 2018)
- A** Ash Pore Water Sample Location (May 2018)
- Site Features
- A-A' LINE OF GEOLOGIC CROSS SECTION



J. ROBERT WELSH POWER PLANT
 1187 COUNTY ROAD 4865
 PITTSBURG, TITUS COUNTY, TEXAS

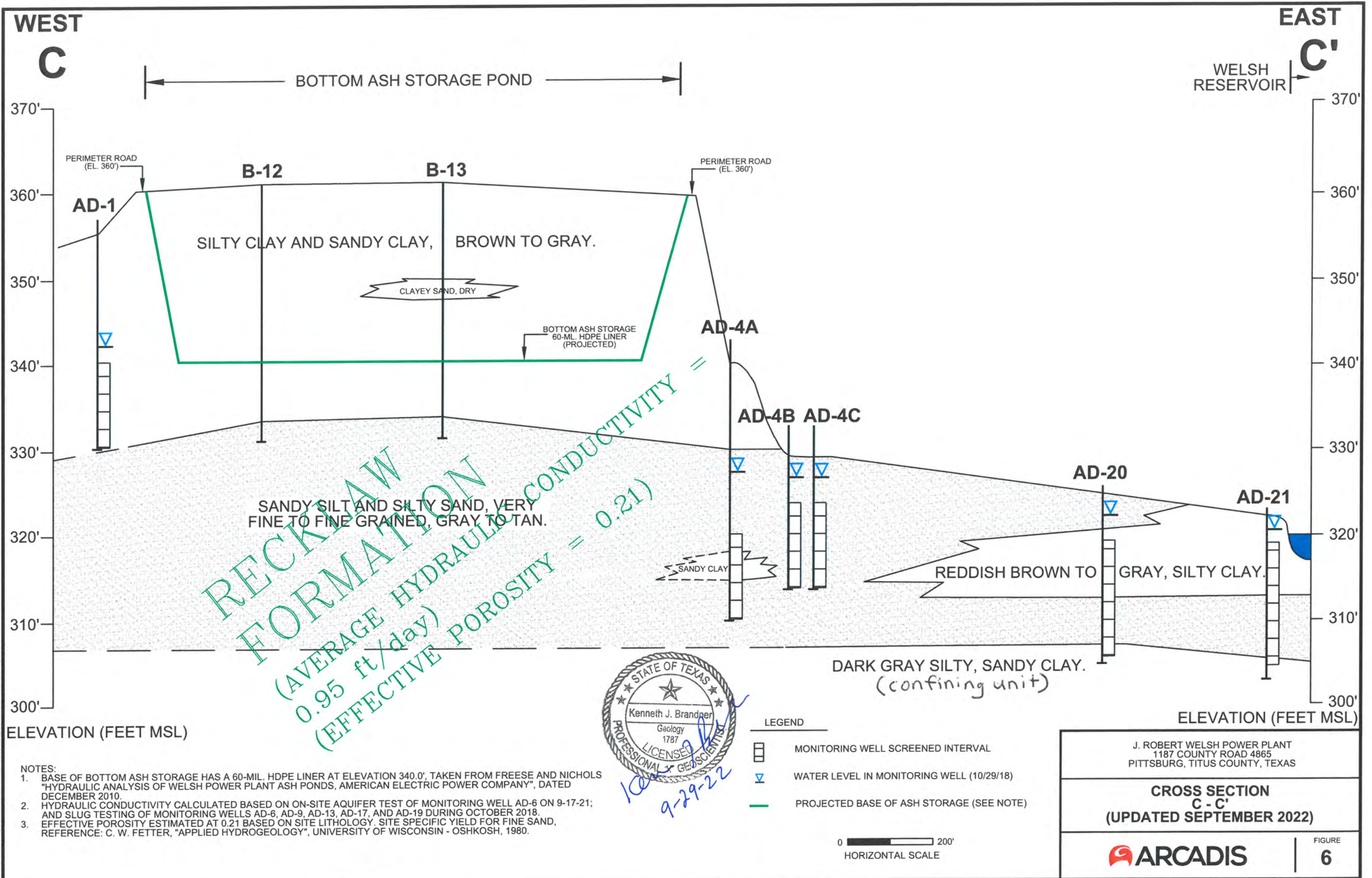
**SITE LAYOUT AND WELL LOCATIONS
 (UPDATED SEPTEMBER 2022)**

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

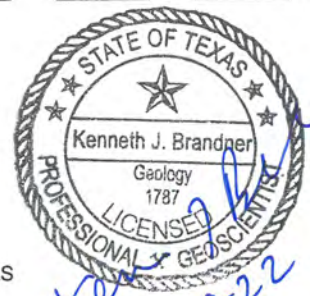
ARCADIS Design & Consultancy for natural and built assets

FIGURE
3

CITY: DIVISION: AM: PD: TR: LYNON-OFF-REF- ROBERT WELSH POWER PLANT-PITTSBURG Texas/202201-Progress/01-DWG/figure 6 Cross Section C-C.dwg LAYOUT: C-C. SAVED: 9/28/2022 11:33 AM ACADVER: 24.25 (LMS TECH) PAGES: 6
 C:\Users\minho\OneDrive - ARCADIS\Documents\OneDrive Sync Location\AUS-AEP-J. ROBERT WELSH POWER PLANT-PITTSBURG Texas/202201-Progress/01-DWG/figure 6 Cross Section C-C.dwg PLOTTED: 9/28/2022 11:49 AM BY: SMITH, BOB



RECKNAW
 FORMATION
 (AVERAGE HYDRAULIC CONDUCTIVITY =
 0.95 ft/day)
 (EFFECTIVE POROSITY = 0.21)



10/29/18
9-29-22

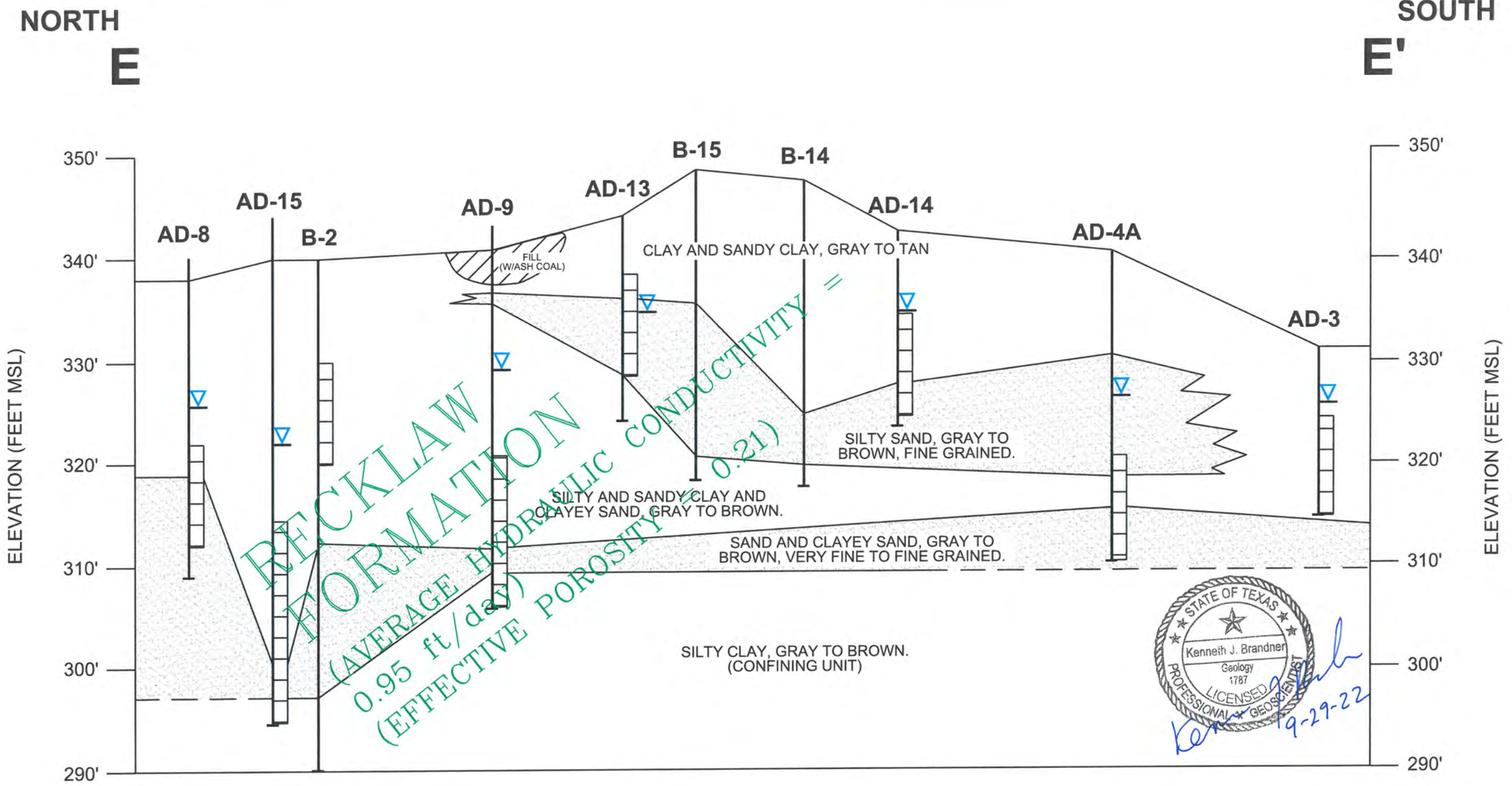
- NOTES:**
1. BASE OF BOTTOM ASH STORAGE HAS A 60-MIL. HDPE LINER AT ELEVATION 340.0'. TAKEN FROM FREESE AND NICHOLS "HYDRAULIC ANALYSIS OF WELSH POWER PLANT ASH PONDS, AMERICAN ELECTRIC POWER COMPANY", DATED DECEMBER 2010.
 2. HYDRAULIC CONDUCTIVITY CALCULATED BASED ON ON-SITE AQUIFER TEST OF MONITORING WELL AD-6 ON 9-17-21; AND SLUG TESTING OF MONITORING WELLS AD-6, AD-9, AD-13, AD-17, AND AD-19 DURING OCTOBER 2018.
 3. EFFECTIVE POROSITY ESTIMATED AT 0.21 BASED ON SITE LITHOLOGY, SITE SPECIFIC YIELD FOR FINE SAND, REFERENCE: C. W. FETTER, "APPLIED HYDROGEOLOGY", UNIVERSITY OF WISCONSIN - OSKOSH, 1980.

- LEGEND**
- MONITORING WELL SCREENED INTERVAL
 - WATER LEVEL IN MONITORING WELL (10/29/18)
 - PROJECTED BASE OF ASH STORAGE (SEE NOTE)

0 200'
HORIZONTAL SCALE

J. ROBERT WELSH POWER PLANT 1187 COUNTY ROAD 4865 PITTSBURG, TITUS COUNTY, TEXAS	
CROSS SECTION C - C' (UPDATED SEPTEMBER 2022)	
	FIGURE 6

CITY: DIV/GROUP: DB: LD: AM: PD: TM: TR: LVR:ONE"OFF="REF" C:\Users\brmih\OneDrive - ARCADIS\BIM\360 - OneDrive Sync Location\AUS-AEP-J. ROBERT WELSH POWER PLANT-PITTSBURG Texas\2022\01-in Progress\01-DWG\Figure 8 Cross Section E-E.dwg LAYOUT: E-E SAVED: 9/27/2022 10:43 AM ACADVER: 24.2S (LMS TECH) PAGESETUP: PLOTSTYLETABLE: ACAD.CTB PLOTTED: 9/28/2022 11:46 AM BY: SMITH, BOB



- NOTES:**
1. BASE OF ASH POND TAKEN FROM "WELSH POWER PLANT-UNIT 1 FLY ASH STORAGE AREA PHASE I" DRAWING ID WEPX-88, DATED 12-3-76; AND U.S. GEOLOGICAL SURVEY 7 1/2 MINUTE SERIES TOPOGRAPHIC MAP, CASON, TX QUADRANGLE, 1964 (PHOTO REVISED 1980).
 2. HYDRAULIC CONDUCTIVITY CALCULATED BASED ON ON-SITE AQUIFER TEST OF MONITORING WELL AD-6 ON 9-17-21; AND SLUG TESTING OF MONITORING WELLS AD-6, AD-9, AD-13, AD-17, AND AD-19 DURING OCTOBER 2018.
 3. EFFECTIVE POROSITY ESTIMATED AT 0.21 BASED ON SITE LITHOLOGY. SITE SPECIFIC YIELD FOR FINE SAND, REFERENCE: C. W. FETTER, "APPLIED HYDROGEOLOGY", UNIVERSITY OF WISCONSIN - OSHKOSH, 1980.

- LEGEND**
- ☐ MONITORING WELL SCREENED INTERVAL
 - ▽ WATER LEVEL IN MONITORING WELL (3/4/16)



J. ROBERT WELSH POWER PLANT
1187 COUNTY ROAD 4865
PITTSBURG, TITUS COUNTY, TEXAS

**CROSS SECTION
E - E'
(UPDATED SEPTEMBER 2022)**

ARCADIS

FIGURE
8

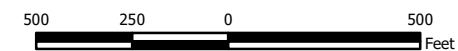
ATTACHMENT B

Historical Potentiometric Maps



- Legend**
- Groundwater Monitoring Well
 - Groundwater Elevation Contour
 - Groundwater Elevation Contour (Inferred)
 - Approximate Groundwater Flow Direction
 - CCR Units

- Notes**
1. Monitoring well coordinates and water level data (collected on February 26, 2024) provided by AEP.
 2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2022).
 3. Groundwater elevation units are feet above mean sea level (ft amsl).
 4. Satellite imagery provided by ESRI (updated February 19, 2024).



Beth Ann Gross
 August 19, 2024
 Geosyntec Consultants, Inc.
 Texas Firm Registration
 No. 1182



**Groundwater Potentiometric Map
 February 2024**

AEP Welsh Power Plant
 Cason, Texas

Geosyntec
 consultants

Columbus, Ohio

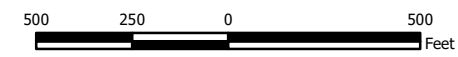
2024/07/16

Figure
B-1



- Legend**
- Groundwater Monitoring Well
 - Groundwater Elevation Contour
 - Groundwater Elevation Contour (Inferred)
 - Approximate Groundwater Flow Direction
 - CCR Units

- Notes**
1. Monitoring well coordinates and water level data (collected on April 1 and 2, 2024) provided by AEP.
 2. AD-6 was not gauged during the April 2024 event
 3. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2022).
 4. Groundwater elevation units are feet above mean sea level (ft amsl).
 5. Satellite imagery provided by ESRI (updated February 19, 2024).



Beth Ann Gross
 August 19, 2024
 Geosyntec Consultants, Inc.
 Texas Firm Registration
 No. 1182



**Groundwater Potentiometric Map
 April 2024**

AEP Welsh Power Plant
 Cason, Texas



Columbus, Ohio 2024/06/14

Figure
B-2



- Legend**
- Groundwater Monitoring Well
 - Groundwater Elevation Contour
 - Groundwater Elevation Contour (Inferred)
 - Approximate Groundwater Flow Direction
 - CCR Units

- Notes**
1. Monitoring well coordinates and water level data (collected on September 8, 9, and 10, 2024) provided by AEP.
 2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2022).
 3. Groundwater elevation units are feet above mean sea level (ft amsl).
 4. Aerial imagery provided by Google Earth Pro, dated December 29, 2023.



Beth Ann Gross
 1/13/2025
 Geosyntec Consultants, Inc. Texas
 Firm Registration No. 1182



**Groundwater Potentiometric Map
 September 2024**

AEP Welsh Power Plant
 Cason, Texas

Geosyntec
 consultants

Columbus, Ohio

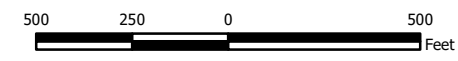
2025/01/13

Figure
B-3



- Legend**
- ◆ Groundwater Monitoring Well
 - Groundwater Elevation Contour
 - Approximate Groundwater Flow Direction
 - ▭ CCR Units

- Notes**
1. Monitoring well coordinates and water level data (collected on February 10, 2025) provided by AEP.
 2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2C).
 3. Groundwater elevation units are feet above mean sea level (ft amsl).
 4. Monitoring wells AD-1, AD-2, and AD-3 were not gauged during the February 2025 event.
 5. Wells shaded in gray were not used for contouring.
 6. Aerial imagery provided by the TxGIO DataHub (dated 2024).



Beth Ann Gross
 January 26, 2026
 Geosyntec Consultants, Inc.
 Texas Firm Registration No. 1182

**Groundwater Potentiometric Map
 February 2025**

AEP Welsh Power Plant
 Cason, Texas



Columbus, Ohio

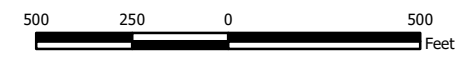
2025/06/16

Figure
B-4



- Legend**
- Groundwater Monitoring Well
 - Groundwater Elevation Contour
 - Groundwater Elevation Contour (Inferred)
 - Approximate Groundwater Flow Direction
 - CCR Units

- Notes**
1. Monitoring well coordinates and water level data (collected on April 28 and 29, 2025) provided by AEP.
 2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2022).
 3. Groundwater elevation units are feet above mean sea level (ft amsl).
 4. Aerial imagery provided by the TxGIO DataHub (dated 2024).



Beth Ann Gross
 January 26, 2026
 Geosyntec Consultants, Inc.
 Texas Firm Registration No. 1182

**Groundwater Potentiometric Map
 April 2025**

AEP Welsh Power Plant
 Cason, Texas



Columbus, Ohio

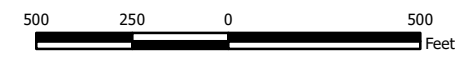
2025/06/16

Figure
B-5



- Legend**
- Groundwater Monitoring Well
 - Groundwater Elevation Contour
 - Groundwater Elevation Contour (Inferred)
 - Approximate Groundwater Flow Direction
 - CCR Units

- Notes**
1. Monitoring well coordinates and water level data (collected from September 2 - 4, 2025) provided by AEP.
 2. Site features based on information available in CCR Groundwater Monitoring Well Network Evaluation (Arcadis 2022).
 3. Groundwater elevation units are feet above mean sea level (ft amsl).
 4. Aerial imagery provided by the TxGIO DataHub (dated 2024).



Beth Ann Gross

January 26, 2026

Geosyntec Consultants, Inc.
Texas Firm Registration No. 1182

**Groundwater Potentiometric Map
September 2025**

AEP Welsh Power Plant
Cason, Texas

Geosyntec
consultants

Figure
B-6

Columbus, Ohio

2025/10/15

ATTACHMENT C
Laboratory Analytical Report – Aquifer Solids

 **ANALYTICAL REPORT****PREPARED FOR**

Attn: Allison Kreinberg
Geosyntec Consultants Inc
500 West Wilson Bridge Road
Suite 250
Worthington, Ohio 43085

Generated 1/9/2025 10:43:38 PM

JOB DESCRIPTION

AEP Welsh

JOB NUMBER

820-16585-1

Eurofins Lubbock

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization



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Authorized for release by
Holly Taylor, Project Manager
Holly.Taylor@et.eurofinsus.com
(806)794-1296



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Definitions/Glossary

Client: Geosyntec Consultants Inc
Project/Site: AEP Welsh

Job ID: 820-16585-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
U	Indicates the analyte was analyzed for but not detected.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Geosyntec Consultants Inc
Project: AEP Welsh

Job ID: 820-16585-1

Job ID: 820-16585-1

Eurofins Lubbock

Job Narrative 820-16585-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 12/12/2024 9:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 3.1°C.

Metals

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Gamma Spectroscopy

Method GA_01_R_Ra: Gamma Prep Batch 160-694203:

The sample results for AD-16R-RELOG-14'-15' (820-16585-1), AD-16R-RELOG-19'-20' (820-16585-2), AD-17-RELOG-29'-30' (820-16585-3) and AD-17-RELOG-33'-34' (820-16585-4) are based upon sample as received (i.e. wet weight).

Method GA_01_R_Ra: Gamma Prep Batch 160-694203

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

Eurofins Lubbock

Case Narrative

Client: Geosyntec Consultants Inc
Project: AEP Welsh

Job ID: 820-16585-1

Job ID: 820-16585-1 (Continued)

Eurofins Lubbock

AD-16R-RELOG-14'-15' (820-16585-1), AD-16R-RELOG-19'-20' (820-16585-2), AD-17-RELOG-29'-30' (820-16585-3), AD-17-RELOG-33'-34' (820-16585-4), (570-210742-A-1-A) and (570-210742-A-1-B DU)

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

- 1
- 2
- 3
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- 7
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- 12
- 13

Client Sample Results

Client: Geosyntec Consultants Inc
Project/Site: AEP Welsh

Job ID: 820-16585-1

Client Sample ID: AD-16R-RELOG-14'-15'

Lab Sample ID: 820-16585-1

Date Collected: 12/11/24 08:10

Matrix: Solid

Date Received: 12/12/24 09:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<1.84	U	4.24	1.84	mg/Kg		12/18/24 11:11	12/18/24 14:56	5
Thorium	3.93		0.424	0.424	mg/Kg		01/08/25 17:45	01/09/25 12:04	5
Uranium	0.436		0.424	0.119	mg/Kg		12/18/24 11:11	12/18/24 14:56	5

Method: DOE GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	1.04		0.207	0.231	1.00	0.166	pCi/g	12/17/24 15:34	01/07/25 14:34	1
Radium-228	1.37		0.286	0.316		0.116	pCi/g	12/17/24 15:34	01/07/25 14:34	1

Client Sample ID: AD-16R-RELOG-19'-20'

Lab Sample ID: 820-16585-2

Date Collected: 12/11/24 08:20

Matrix: Solid

Date Received: 12/12/24 09:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	1.93	J	4.24	1.84	mg/Kg		12/18/24 11:11	12/19/24 12:37	5
Thorium	6.89		0.424	0.424	mg/Kg		01/08/25 17:45	01/09/25 12:10	5
Uranium	1.13		0.424	0.119	mg/Kg		12/18/24 11:11	12/18/24 15:12	5

Method: DOE GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	1.32		0.228	0.263	1.00	0.200	pCi/g	12/17/24 15:34	01/07/25 15:50	1
Radium-228	1.52		0.362	0.390		0.243	pCi/g	12/17/24 15:34	01/07/25 15:50	1

Client Sample ID: AD-17-RELOG-29'-30'

Lab Sample ID: 820-16585-3

Date Collected: 12/11/24 09:50

Matrix: Solid

Date Received: 12/12/24 09:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	5.05		4.39	1.91	mg/Kg		12/18/24 11:11	12/19/24 12:39	5
Thorium	5.84		0.439	0.439	mg/Kg		01/08/25 17:45	01/09/25 12:11	5
Uranium	1.75		0.439	0.123	mg/Kg		12/18/24 11:11	12/18/24 15:14	5

Method: DOE GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	1.20		0.204	0.236	1.00	0.182	pCi/g	12/17/24 15:34	01/07/25 16:27	1
Radium-228	1.21		0.276	0.300		0.148	pCi/g	12/17/24 15:34	01/07/25 16:27	1

Client Sample ID: AD-17-RELOG-33'-34'

Lab Sample ID: 820-16585-4

Date Collected: 12/11/24 10:10

Matrix: Solid

Date Received: 12/12/24 09:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Boron	<1.81	U	4.17	1.81	mg/Kg		12/18/24 11:11	12/19/24 12:41	5

Eurofins Lubbock

Client Sample Results

Client: Geosyntec Consultants Inc
 Project/Site: AEP Welsh

Job ID: 820-16585-1

Client Sample ID: AD-17-RELOG-33'-34'

Lab Sample ID: 820-16585-4

Date Collected: 12/11/24 10:10

Matrix: Solid

Date Received: 12/12/24 09:00

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Thorium	1.52		0.417	0.417	mg/Kg		01/08/25 17:45	01/09/25 12:12	5
Uranium	0.325	J	0.417	0.117	mg/Kg		12/18/24 11:11	12/18/24 15:16	5

Method: DOE GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.526		0.131	0.141	1.00	0.112	pCi/g	12/17/24 15:34	01/07/25 18:10	1
Radium-228	0.372		0.233	0.236		0.242	pCi/g	12/17/24 15:34	01/07/25 18:10	1



QC Sample Results

Client: Geosyntec Consultants Inc
Project/Site: AEP Welsh

Job ID: 820-16585-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 860-206256/1-A
Matrix: Solid
Analysis Batch: 206368

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206256

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Boron	<0.435	U	1.00	0.435	mg/Kg		12/18/24 11:11	12/18/24 14:50	1
Uranium	<0.0281	U	0.100	0.0281	mg/Kg		12/18/24 11:11	12/18/24 14:50	1

Lab Sample ID: LCS 860-206256/2-A
Matrix: Solid
Analysis Batch: 206368

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206256

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	RPD
Boron	10.0	9.943		mg/Kg		99	80 - 120	
Uranium	2.49	2.387		mg/Kg		96	80 - 120	

Lab Sample ID: LCSD 860-206256/3-A
Matrix: Solid
Analysis Batch: 206368

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 206256

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec		RPD
							Limits	Limit	
Boron	10.0	10.20		mg/Kg		102	80 - 120	3	20
Uranium	2.49	2.372		mg/Kg		95	80 - 120	1	20

Lab Sample ID: 820-16585-1 MS
Matrix: Solid
Analysis Batch: 206368

Client Sample ID: AD-16R-RELOG-14'-15'
Prep Type: Total/NA
Prep Batch: 206256

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec	
									Limits	RPD
Boron	<1.84	U	8.33	6.304		mg/Kg		76	75 - 125	
Uranium	0.436		2.07	2.209		mg/Kg		86	75 - 125	

Lab Sample ID: 820-16585-1 MSD
Matrix: Solid
Analysis Batch: 206368

Client Sample ID: AD-16R-RELOG-14'-15'
Prep Type: Total/NA
Prep Batch: 206256

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec	
									Limits	RPD
Boron	<1.84	U	8.77	7.187		mg/Kg		82	75 - 125	13
Uranium	0.436		2.18	2.328		mg/Kg		87	75 - 125	5

Lab Sample ID: MB 860-209800/1-A
Matrix: Solid
Analysis Batch: 209977

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 209800

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Thorium	<0.100	U	0.100	0.100	mg/Kg		01/08/25 17:45	01/09/25 12:00	1

Lab Sample ID: LCS 860-209800/2-A
Matrix: Solid
Analysis Batch: 209977

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 209800

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	RPD
Thorium	5.00	4.580		mg/Kg		92	80 - 120	

QC Sample Results

Client: Geosyntec Consultants Inc
Project/Site: AEP Welsh

Job ID: 820-16585-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 860-209800/3-A
Matrix: Solid
Analysis Batch: 209977

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 209800

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thorium	5.00	4.531		mg/Kg		91	80 - 120	1	20

Lab Sample ID: 820-16585-1 MS
Matrix: Solid
Analysis Batch: 209977

Client Sample ID: AD-16R-RELOG-14'-15'
Prep Type: Total/NA
Prep Batch: 209800

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Thorium	3.93		4.17	8.774		mg/Kg		116	75 - 125

Lab Sample ID: 820-16585-1 MSD
Matrix: Solid
Analysis Batch: 209977

Client Sample ID: AD-16R-RELOG-14'-15'
Prep Type: Total/NA
Prep Batch: 209800

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Thorium	3.93		4.39	8.997		mg/Kg		116	75 - 125	3	20

Method: GA-01-R - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-694203/1-A
Matrix: Solid
Analysis Batch: 697154

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 694203

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.08231	U	0.264	0.264	1.00	0.456	pCi/g	12/17/24 15:34	01/07/25 13:13	1
Radium-228	-0.1363	U	0.298	0.298		0.456	pCi/g	12/17/24 15:34	01/07/25 13:13	1

Lab Sample ID: LCS 160-694203/2-A
Matrix: Solid
Analysis Batch: 697157

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 694203

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Americium-241	351	360.5		37.1		1.26	pCi/g	103	75 - 125
Cesium-137	105	111.6		11.0		0.367	pCi/g	107	75 - 125
Cobalt-60	38.0	40.11		3.96		0.184	pCi/g	105	75 - 125

QC Association Summary

Client: Geosyntec Consultants Inc
 Project/Site: AEP Welsh

Job ID: 820-16585-1

Metals

Prep Batch: 206256

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16585-1	AD-16R-RELOG-14'-15'	Total/NA	Solid	3051A	
820-16585-2	AD-16R-RELOG-19'-20'	Total/NA	Solid	3051A	
820-16585-3	AD-17-RELOG-29'-30'	Total/NA	Solid	3051A	
820-16585-4	AD-17-RELOG-33'-34'	Total/NA	Solid	3051A	
MB 860-206256/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 860-206256/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 860-206256/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	
820-16585-1 MS	AD-16R-RELOG-14'-15'	Total/NA	Solid	3051A	
820-16585-1 MSD	AD-16R-RELOG-14'-15'	Total/NA	Solid	3051A	

Analysis Batch: 206368

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16585-1	AD-16R-RELOG-14'-15'	Total/NA	Solid	6020B	206256
820-16585-2	AD-16R-RELOG-19'-20'	Total/NA	Solid	6020B	206256
820-16585-3	AD-17-RELOG-29'-30'	Total/NA	Solid	6020B	206256
820-16585-4	AD-17-RELOG-33'-34'	Total/NA	Solid	6020B	206256
MB 860-206256/1-A	Method Blank	Total/NA	Solid	6020B	206256
LCS 860-206256/2-A	Lab Control Sample	Total/NA	Solid	6020B	206256
LCSD 860-206256/3-A	Lab Control Sample Dup	Total/NA	Solid	6020B	206256
820-16585-1 MS	AD-16R-RELOG-14'-15'	Total/NA	Solid	6020B	206256
820-16585-1 MSD	AD-16R-RELOG-14'-15'	Total/NA	Solid	6020B	206256

Analysis Batch: 206622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16585-2	AD-16R-RELOG-19'-20'	Total/NA	Solid	6020B	206256
820-16585-3	AD-17-RELOG-29'-30'	Total/NA	Solid	6020B	206256
820-16585-4	AD-17-RELOG-33'-34'	Total/NA	Solid	6020B	206256

Prep Batch: 209800

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16585-1	AD-16R-RELOG-14'-15'	Total/NA	Solid	3051A	
820-16585-2	AD-16R-RELOG-19'-20'	Total/NA	Solid	3051A	
820-16585-3	AD-17-RELOG-29'-30'	Total/NA	Solid	3051A	
820-16585-4	AD-17-RELOG-33'-34'	Total/NA	Solid	3051A	
MB 860-209800/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 860-209800/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 860-209800/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	
820-16585-1 MS	AD-16R-RELOG-14'-15'	Total/NA	Solid	3051A	
820-16585-1 MSD	AD-16R-RELOG-14'-15'	Total/NA	Solid	3051A	

Analysis Batch: 209977

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16585-1	AD-16R-RELOG-14'-15'	Total/NA	Solid	6020B	209800
820-16585-2	AD-16R-RELOG-19'-20'	Total/NA	Solid	6020B	209800
820-16585-3	AD-17-RELOG-29'-30'	Total/NA	Solid	6020B	209800
820-16585-4	AD-17-RELOG-33'-34'	Total/NA	Solid	6020B	209800
MB 860-209800/1-A	Method Blank	Total/NA	Solid	6020B	209800
LCS 860-209800/2-A	Lab Control Sample	Total/NA	Solid	6020B	209800
LCSD 860-209800/3-A	Lab Control Sample Dup	Total/NA	Solid	6020B	209800
820-16585-1 MS	AD-16R-RELOG-14'-15'	Total/NA	Solid	6020B	209800
820-16585-1 MSD	AD-16R-RELOG-14'-15'	Total/NA	Solid	6020B	209800

Eurofins Lubbock

QC Association Summary

Client: Geosyntec Consultants Inc
 Project/Site: AEP Welsh

Job ID: 820-16585-1

Rad

Leach Batch: 693515

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16585-1	AD-16R-RELOG-14'-15'	Total/NA	Solid	Dry and Grind	
820-16585-2	AD-16R-RELOG-19'-20'	Total/NA	Solid	Dry and Grind	
820-16585-3	AD-17-RELOG-29'-30'	Total/NA	Solid	Dry and Grind	
820-16585-4	AD-17-RELOG-33'-34'	Total/NA	Solid	Dry and Grind	

Prep Batch: 694203

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
820-16585-1	AD-16R-RELOG-14'-15'	Total/NA	Solid	Fill_Geo-21	693515
820-16585-2	AD-16R-RELOG-19'-20'	Total/NA	Solid	Fill_Geo-21	693515
820-16585-3	AD-17-RELOG-29'-30'	Total/NA	Solid	Fill_Geo-21	693515
820-16585-4	AD-17-RELOG-33'-34'	Total/NA	Solid	Fill_Geo-21	693515
MB 160-694203/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	
LCS 160-694203/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	



Lab Chronicle

Client: Geosyntec Consultants Inc
Project/Site: AEP Welsh

Job ID: 820-16585-1

Client Sample ID: AD-16R-RELOG-14'-15'

Lab Sample ID: 820-16585-1

Date Collected: 12/11/24 08:10

Matrix: Solid

Date Received: 12/12/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	206256	12/18/24 11:11	PB	EET HOU
Total/NA	Analysis	6020B		5			206368	12/18/24 14:56	DP	EET HOU
Total/NA	Prep	3051A			.59 g	50 mL	209800	01/08/25 17:45	PB	EET HOU
Total/NA	Analysis	6020B		5			209977	01/09/25 12:04	DP	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	693515	12/13/24 14:02	SAC	EET SL
Total/NA	Prep	Fill_Geo-21			296.5000 g	1.0 g	694203	12/17/24 15:34	HGB	EET SL
Total/NA	Analysis	GA-01-R		1			697155	01/07/25 14:34	CAH	EET SL

Client Sample ID: AD-16R-RELOG-19'-20'

Lab Sample ID: 820-16585-2

Date Collected: 12/11/24 08:20

Matrix: Solid

Date Received: 12/12/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	206256	12/18/24 11:11	PB	EET HOU
Total/NA	Analysis	6020B		5			206368	12/18/24 15:12	DP	EET HOU
Total/NA	Prep	3051A			.59 g	50 mL	206256	12/18/24 11:11	PB	EET HOU
Total/NA	Analysis	6020B		5			206622	12/19/24 12:37	DP	EET HOU
Total/NA	Prep	3051A			.59 g	50 mL	209800	01/08/25 17:45	PB	EET HOU
Total/NA	Analysis	6020B		5			209977	01/09/25 12:10	DP	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	693515	12/13/24 14:02	SAC	EET SL
Total/NA	Prep	Fill_Geo-21			290.1000 g	1.0 g	694203	12/17/24 15:34	HGB	EET SL
Total/NA	Analysis	GA-01-R		1			697155	01/07/25 15:50	CAH	EET SL

Client Sample ID: AD-17-RELOG-29'-30'

Lab Sample ID: 820-16585-3

Date Collected: 12/11/24 09:50

Matrix: Solid

Date Received: 12/12/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.57 g	50 mL	206256	12/18/24 11:11	PB	EET HOU
Total/NA	Analysis	6020B		5			206368	12/18/24 15:14	DP	EET HOU
Total/NA	Prep	3051A			.57 g	50 mL	206256	12/18/24 11:11	PB	EET HOU
Total/NA	Analysis	6020B		5			206622	12/19/24 12:39	DP	EET HOU
Total/NA	Prep	3051A			.57 g	50 mL	209800	01/08/25 17:45	PB	EET HOU
Total/NA	Analysis	6020B		5			209977	01/09/25 12:11	DP	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	693515	12/13/24 14:02	SAC	EET SL
Total/NA	Prep	Fill_Geo-21			333.9000 g	1.0 g	694203	12/17/24 15:34	HGB	EET SL
Total/NA	Analysis	GA-01-R		1			697155	01/07/25 16:27	CAH	EET SL

Client Sample ID: AD-17-RELOG-33'-34'

Lab Sample ID: 820-16585-4

Date Collected: 12/11/24 10:10

Matrix: Solid

Date Received: 12/12/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	206256	12/18/24 11:11	PB	EET HOU
Total/NA	Analysis	6020B		5			206368	12/18/24 15:16	DP	EET HOU

Lab Chronicle

Client: Geosyntec Consultants Inc
 Project/Site: AEP Welsh

Job ID: 820-16585-1

Client Sample ID: AD-17-RELOG-33'-34'

Lab Sample ID: 820-16585-4

Date Collected: 12/11/24 10:10

Matrix: Solid

Date Received: 12/12/24 09:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	206256	12/18/24 11:11	PB	EET HOU
Total/NA	Analysis	6020B		5			206622	12/19/24 12:41	DP	EET HOU
Total/NA	Prep	3051A			.6 g	50 mL	209800	01/08/25 17:45	PB	EET HOU
Total/NA	Analysis	6020B		5			209977	01/09/25 12:12	DP	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	693515	12/13/24 14:02	SAC	EET SL
Total/NA	Prep	Fill_Geo-21			390.1000 g	1.0 g	694203	12/17/24 15:34	HGB	EET SL
Total/NA	Analysis	GA-01-R		1			697155	01/07/25 18:10	CAH	EET SL

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Accreditation/Certification Summary

Client: Geosyntec Consultants Inc
Project/Site: AEP Welsh

Job ID: 820-16585-1

Laboratory: Eurofins Houston

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704215	06-30-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
6020B	3051A	Solid	Thorium
6020B	3051A	Solid	Uranium

Laboratory: Eurofins St. Louis

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Texas	NELAP	T104704193	07-31-25

Method Summary

Client: Geosyntec Consultants Inc
Project/Site: AEP Welsh

Job ID: 820-16585-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET HOU
GA-01-R	Radium-226 & Other Gamma Emitters (GS)	DOE	EET SL
3051A	Preparation, Metals, Microwave Assisted	SW846	EET HOU
Dry and Grind	Preparation, Dry and Grind	None	EET SL
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	EET SL

Protocol References:

DOE = U.S. Department of Energy

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566



Sample Summary

Client: Geosyntec Consultants Inc
Project/Site: AEP Welsh

Job ID: 820-16585-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
820-16585-1	AD-16R-RELOG-14'-15'	Solid	12/11/24 08:10	12/12/24 09:00
820-16585-2	AD-16R-RELOG-19'-20'	Solid	12/11/24 08:20	12/12/24 09:00
820-16585-3	AD-17-RELOG-29'-30'	Solid	12/11/24 09:50	12/12/24 09:00
820-16585-4	AD-17-RELOG-33'-34'	Solid	12/11/24 10:10	12/12/24 09:00

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Loc: 820 Houston
 16585
 77477
 40-4200

Chain of Custody Record

Sampler: **Alondra Saltero**
 Phone: **(915) 853-7813**
 E-Mail: **Holly.Taylor@eurofins.com**

Lab PM: **Taylor, Holly**
 Carrier Tracking No(s): **860-34474-11813.1**
 State of Origin: **TX**
 Page: **1 of 1**

Company: **Geosyntec Consultants Inc**
 Address: **1500 West Wilson Bridge Road Suite 250**
 City: **Worthington**
 State/Zip: **OH, 43085**
 Phone: **614-468-0421(Tel)**
 Email: **akreinberg@geosyntec.com**
 Project #: **86007851**
 Radiological Testing
 Site: **AEP welsh**

Due Date Requested:
 TAT Requested (days): **2 weeks**
 Compliance Project: Yes No
 PO #: **614-468-0421(Tel)**
 Purchase Order Requested
 WO #:

Analysis Requested
 Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)
 GA_01_R_Ra - Radium-226/228
 6020B - Th, U
 Boron
 Total Number of Containers: **3**

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wastewater)	Preservation Code: (ST=tissue, A=As)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	GA_01_R_Ra - Radium-226/228	6020B - Th, U	Boron	Total Number of Containers	Special Instructions/Note:
AD-16B-RELOG-14'-15'	12/11/24	0810	G	Solid		N	N	X	X	X	3	
AD-16B-RELOG-19'-20'	12/11/24	0820	G	Solid		N	N	X	X	X	3	
AD-17-RELOG-29'-30'	12/11/24	0950	G	Solid		N	N	X	X	X	3	
AD-17-RELOG-33'-34'	12/11/24	1010	G	Solid		N	N	X	X	X	3	

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by:
 Relinquished by: **Alondra Saltero** Date: **12/11/24 1430**
 Relinquished by: Company: **Geosyntec**
 Relinquished by: Company:

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Method of Shipment: **FedEx**
 Received by: **YJP** Date/Time: **12/12/24 9:00** Company:
 Received by: Date/Time: Company:
 Received by: Date/Time: Company:

Cooler Temperature(s) °C and Other Remarks: **2.9/3.1 IR-1110.2**

Chain of Custody Record



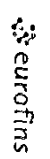
Client Information (Sub Contract Lab)		Sampler N/A	Lab PM Taylor, Holly	Carrier Tracking No(s) N/A	COC No 820-10176-1				
Client Contact: Shipping/Receiving		Phone N/A	E-Mail Holly.Taylor@et.eurofins.com	State of Origin Texas	Page Page 1 of 1				
Company TestAmerica Laboratories, Inc.		Accreditations Required (See note) NELAP - Texas		Job # 820-16585-1	Preservation Codes:				
Address: 13715 Rider Trail North,		Due Date Requested: 1/8/2025							
City: Earth City		TAT Requested (days): N/A							
State, Zip: MO, 63045									
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		PO # N/A							
Email: N/A		WO # N/A							
Project Name: Radiological Testing		Project #: 86007851							
Site: N/A		SSOW#: N/A							
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wastewater, B=effluent, A=air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
AD-16R-RELOG-14'-15' (820-16585-1)	12/11/24	08:10 Central	G	Solid		X	X	2	
AD-16R-RELOG-19'-20' (820-16585-2)	12/11/24	08:20 Central	G	Solid		X	X	2	
AD-17-RELOG-29'-30' (820-16585-3)	12/11/24	09:50 Central	G	Solid		X	X	2	
AD-17-RELOG-33'-34' (820-16585-4)	12/11/24	10:10 Central	G	Solid		X	X	2	
<p>Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.</p>									
<p>Possible Hazard Identification</p> <p>Unconfirmed Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2 Empty Kit Relinquished by: _____ Date: _____ Relinquished by: <i>WJ</i> Date/Time: 12/12/24 1700 Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____</p>									
<p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:</p>									
<p>Received by: <i>Cheyenne Forrest</i> Date/Time: 08/20 DEC 13 2024 Company: ETA-322 Received by: <i>Cheyenne Forrest</i> Date/Time: _____ Company: _____ Received by: _____ Date/Time: _____ Company: _____</p>									
<p>Cooler Temperature(s) °C and Other Remarks:</p>									



Eurofins Lubbock

6701 Aberdeen Ave, Suite 8
 Lubbock, TX 79424
 Phone: 806-794-1296

Chain of Custody Record



Environment Testing

Client Information (Sub Contract Lab)

Client Contact: **Shipping/Receiving** Phone: N/A Lab Pk: Taylor Holly
 Company: Eurofins Environment Testing South Cent E-Mail: Holly Taylor@et.eurofins.com
 Address: 4145 Greenbrier Dr Date Data Requested: 1/10/2025 Accreditations Required (See note): NELAP Texas
 City: Stafford TX 77417 TAT Requested (days): N/A
 State, Zip: TX 77417
 Phone: 281-240-4200(Tel) PO #: N/A
 Email: N/A FWO #: N/A
 Project Name: Radiological Testing Project #: 86007851
 Site: N/A SSCOW #: N/A

Carrier Tracking Note: N/A
 State of Origin: Texas
 Job #: 820-16585-1
 Preservation Codes: 820-10177 1
 Page: Page 1 of 1
 COC No: 820-10177 1

Analysis Requested

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	MATRIX (Wet/dry, Solid, Organic, BT/TELAP, Anal)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8020B/3051A (MOD) Th, U	Total Number of containers	Special Instructions/Note:
AD-16R-RELOG-14 15' (820-16585-1)	12/11/24	08:10	G	Solid	X	X		1	
AD-16R-RELOG-19-20' (820-16585-2)	12/11/24	08:20	G	Solid	X	X		1	
AD-17-RELOG-29-30' (820-16585-3)	12/11/24	09:50	G	Solid	X	X		1	
AD-17-RELOG-33-34 (820-16585-4)	12/11/24	10:10	G	Solid	X	X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyte & accreditation compliance upon our subcontracted laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other institutions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification

Unconfirmed Deliverable Requested: I II III IV Other (specify) Primary Deliverable Rank: 2
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by: *W* Date/Time: 12/12/24 Company: *YGS* Received by: Date/Time: Company:

Relinquished by: Date/Time: Company: Received by: Date/Time: Company:

Custody Seals Intact: Custody Seal No. Cooler Temperature(s) °C and Other Remarks: 12-16 33°

Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 820-16585-1

Login Number: 16585

List Number: 1

Creator: Pena, Yazmeane

List Source: Eurofins Lubbock

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	



Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 820-16585-1

Login Number: 16585

List Number: 3

Creator: Baker, Jeremiah

List Source: Eurofins Houston

List Creation: 12/13/24 12:45 PM

Question	Answer	Comment
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	



Login Sample Receipt Checklist

Client: Geosyntec Consultants Inc

Job Number: 820-16585-1

Login Number: 16585

List Number: 2

Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis

List Creation: 12/13/24 11:49 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



ATTACHMENT D
Laboratory Analytical Report – BASP Closure
Evaluation Soil Sampling



ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Debi Farber
Arcadis US Inc.
98 San Jacinto Blvd.
Suite 414
Austin, Texas 78701

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JOB DESCRIPTION

AEP Hallsville TX

JOB NUMBER

860-89099-1

Eurofins Houston

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization



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Revision 2

Authorized for release by
Sachin Kudchadkar, Senior Project Manager
Sachin.Kudchadkar@et.eurofinsus.com
(281)748-9025



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Definitions/Glossary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Qualifiers

HPLC/IC

Qualifier	Qualifier Description
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the MQL but greater than or equal to the SDL and the concentration is an estimated value.
N1	MS, MSD: Spike recovery exceeds upper or lower control limits.
U	Analyte was not detected at or above the SDL.

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Detection Check Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 6020B - Metals (ICP/MS)

Matrix: Solid
Prep Method: 3051A-Preparation, Metals, Microwave Assisted
Instrument: A364
Detector: MSD/0

Prep Type: Total/NA

Analyte	Spike		Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch
	Added	Result						
Antimony	0.160	0.15	J	mg/Kg	0.40	0.12	12/13/2024	860-205346
Selenium	0.120	0.13	J	mg/Kg	0.20	0.095	12/13/2024	860-205346
Thallium	0.120	0.13	J	mg/Kg	0.20	0.054	12/13/2024	860-205346
Arsenic	0.240	0.28	J	mg/Kg	0.40	0.10	12/13/2024	860-205346
Barium	0.240	0.27	J	mg/Kg	0.40	0.14	12/13/2024	860-205346
Beryllium	0.120	0.13	J	mg/Kg	0.20	0.051	12/13/2024	860-205346
Cadmium	0.120	0.13	J	mg/Kg	0.20	0.053	12/13/2024	860-205346
Chromium	0.240	0.27	J	mg/Kg	0.40	0.054	12/13/2024	860-205346
Cobalt	0.120	0.14	J	mg/Kg	0.20	0.060	12/13/2024	860-205346
Lead	0.120	0.13	J	mg/Kg	0.20	0.063	12/13/2024	860-205346
Molybdenum	0.120	0.13	J	mg/Kg	0.20	0.092	12/13/2024	860-205346

Matrix: Solid
Prep Method: 3051A-Preparation, Metals, Microwave Assisted
Instrument: A384
Detector: MSD/0

Prep Type: Total/NA

Analyte	Spike		Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch
	Added	Result						
Antimony	0.160	0.18	J	mg/Kg	0.40	0.12	12/13/2024	860-205410
Selenium	0.160	0.21		mg/Kg	0.20	0.095	12/13/2024	860-205410
Thallium	0.160	0.17	J	mg/Kg	0.20	0.054	12/13/2024	860-205410
Arsenic	0.320	0.35	J	mg/Kg	0.40	0.10	12/13/2024	860-205410
Barium	0.320	0.34	J	mg/Kg	0.40	0.14	12/13/2024	860-205410
Beryllium	0.160	0.18	J	mg/Kg	0.20	0.051	12/13/2024	860-205410
Cadmium	0.160	0.19	J	mg/Kg	0.20	0.053	12/13/2024	860-205410
Chromium	0.320	0.36	J	mg/Kg	0.40	0.054	12/13/2024	860-205410
Cobalt	0.160	0.18	J	mg/Kg	0.20	0.060	12/13/2024	860-205410
Lead	0.160	0.18	J	mg/Kg	0.20	0.063	12/13/2024	860-205410
Molybdenum	0.160	0.19	J	mg/Kg	0.20	0.092	12/13/2024	860-205410

Method: 7471B - Mercury (CVAA)

Matrix: Solid
Prep Method: 7471B-Preparation, Mercury
Instrument: A336
Detector: AA/0

Prep Type: Total/NA

Analyte	Spike		Qualifier	Unit	RL	MDL	Analysis Date	Analysis Batch
	Added	Result						
Mercury	0.0130	0.011	J	mg/Kg	0.020	0.0090	11/21/2024	860-201419

Appendix A

Laboratory Data Package Cover Page - Page 1 of 4


This data package is for Job No. 860-89099-1 and consists of:

This signature page, the laboratory review checklist, and the following reportable data:

- R1- Field chain-of-custody documentation;
- R2 - Sample identification cross-reference;
- R3 - Test reports (analytical data sheets) for each environmental sample that includes:
 - a. Items consistent with NELAC Chapter 5,
 - b. dilution factors,
 - c. preparation methods,
 - d. cleanup methods, and
 - e. if required for the project, tentatively identified compounds (TICs).
- R4 - Surrogate recovery data including:
 - a. Calculated recovery (%R), and
 - b. The laboratory's surrogate QC limits.
- R5 - Test reports/summary forms for blank samples;
- R6 - Test reports/summary forms for laboratory control samples (LCSs) including:
 - a. LCS spiking amounts,
 - b. Calculated %R for each analyte, and
 - c. The laboratory's LCS QC limits.
- R7 - Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a. Samples associated with the MS/MSD clearly identified,
 - b. MS/MSD spiking amounts,
 - c. Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d. Calculated %Rs and relative percent differences (RPDs), and
 - e. The laboratory's MS/MSD QC limits
- R8 - Laboratory analytical duplicate (if applicable) recovery and precision:
 - a. The amount of analyte measured in the duplicate,
 - b. The calculated RPD, and
 - c. The laboratory's QC limits for analytical duplicates.
- R9 - List of method quantitation limits (MQLs) and detectability check sample results for each analyte for each method and matrix;
- R10 - Other problems or anomalies.
- Exception Report for every "No" or "Not Reviewed (NR)" item in Laboratory Review Checklist and for each analyte, matrix, and method for which the laboratory does not hold NELAC accreditation under the Texas Laboratory Accreditation Program.

Release Statement: I am responsible for the release of this laboratory data package. This laboratory is NELAC accredited under the Texas Laboratory Accreditation Program for all the methods, analytes, and matrices reported in this data package except as noted in the Exception Reports. The data have been reviewed and are technically compliant with the requirements of the methods used, except where noted by the laboratory in the Exception Reports. By my signature below, I affirm to the best of my knowledge all problems/anomalies observed by the laboratory have been identified in the Laboratory Review Checklist, and no information affecting the quality of the data has been knowingly withheld.

Check, if applicable: This laboratory meets an exception under 30 TAC §25.6 and was last inspected by TCEQ or on ___/___/__. Any findings affecting the data in this laboratory data package are noted in the Exception Reports herein. The official signing the cover page of the report in which these data are used is responsible for releasing this data package and is signature affirming the above release statement is true.

Name (Printed)	Signature	Official Title (Printed)	Date
Sachin Kudchadkar		Senior Project Manager	02/17/2025

Laboratory Data Package Cover Page - Page 2 of 4

Laboratory Name: Eurofins Houston			LRC Date: 02/17/2025				
Project Name: AEP Hallsville TX			Laboratory Job Number: 860-89099-1				
Reviewer Name: Sachin Kudchadkar							
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
R1	OI	Chain-of-custody (C-O-C)					
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	✓				
		Were all departures from standard conditions described in an exception report?	✓				
R2	OI	Sample and quality control (QC) identification					
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	✓				
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	✓				
R3	OI	Test reports					
		Were all samples prepared and analyzed within holding times?	✓				
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	✓				
		Were calculations checked by a peer or supervisor?	✓				
		Were all analyte identifications checked by a peer or supervisor?	✓				
		Were sample detection limits reported for all analytes not detected?	✓				
		Were all results for soil and sediment samples reported on a dry weight basis?	✓				
		Were % moisture (or solids) reported for all soil and sediment samples?	✓				
		Were bulk soils/solids samples for volatile analysis extracted with methanol per SW846 Method 5035?	✓				
		If required for the project, are TICs reported?	✓				
R4	O	Surrogate recovery data					
		Were surrogates added prior to extraction?	✓				
		Were surrogate percent recoveries in all samples within the laboratory QC limits?	✓				
R5	OI	Test reports/summary forms for blank samples					
		Were appropriate type(s) of blanks analyzed?	✓				
		Were blanks analyzed at the appropriate frequency?	✓				
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	✓				
		Were blank concentrations < MQL?	✓				
R6	OI	Laboratory control samples (LCS):					
		Were all COCs included in the LCS?	✓				
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	✓				
		Were LCSs analyzed at the required frequency?	✓				
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Does the detectability check sample data document the laboratory's capability to detect the COCs at the MDL used to calculate the SDLs?	✓				
		Was the LCSD RPD within QC limits?	✓				
R7	OI	Matrix spike (MS) and matrix spike duplicate (MSD) data					
		Were the project/method specified analytes included in the MS and MSD?	✓				
		Were MS/MSD analyzed at the appropriate frequency?	✓				
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?	✓				
		Were MS/MSD RPDs within laboratory QC limits?	✓				
R8	OI	Analytical duplicate data					
		Were appropriate analytical duplicates analyzed for each matrix?	✓				
		Were analytical duplicates analyzed at the appropriate frequency?	✓				
		Were RPDs or relative standard deviations within the laboratory QC limits?	✓				
R9	OI	Method quantitation limits (MQLs):					
		Are the MQLs for each method analyte included in the laboratory data package?	✓				
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	✓				
		Are unadjusted MQLs and DCSs included in the laboratory data package?	✓				
R10	OI	Other problems/anomalies					
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	✓				
		Was applicable and available technology used to lower the SDL to minimize the matrix interference effects on the sample results?	✓				
		Is the laboratory NELAC-accredited under the Texas Laboratory Accreditation Program for the analytes, matrices and methods associated with this laboratory data package?	✓				

Laboratory Data Package Cover Page - Page 3 of 4

Laboratory Name: Eurofins Houston			LRC Date: 02/17/2025				
Project Name: AEP Hallsville TX			Laboratory Job Number: 860-89099-1				
Reviewer Name: Sachin Kudchadkar							
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵
S1	OI	Initial calibration (ICAL)					
		Were response factors and/or relative response factors for each analyte within QC limits?	✓				
		Were percent RSDs or correlation coefficient criteria met?	✓				
		Was the number of standards recommended in the method used for all analytes?	✓				
		Were all points generated between the lowest and highest standard used to calculate the curve?	✓				
		Are ICAL data available for all instruments used?	✓				
		Has the initial calibration curve been verified using an appropriate second source standard?	✓				
S2	OI	Initial and continuing calibration verification (ICCV and CCV) and continuing calibration blank (CCB):					
		Was the CCV analyzed at the method-required frequency?	✓				
		Were percent differences for each analyte within the method-required QC limits?	✓				
		Was the ICAL curve verified for each analyte?	✓				
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	✓				
S3	O	Mass spectral tuning					
		Was the appropriate compound for the method used for tuning?	✓				
		Were ion abundance data within the method-required QC limits?	✓				
S4	O	Internal standards (IS)					
		Were IS area counts and retention times within the method-required QC limits?	✓				
S5	OI	Raw data (NELAC Section 5.5.10)					
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	✓				
		Were data associated with manual integrations flagged on the raw data?	✓				
S6	O	Dual column confirmation					
		Did dual column confirmation results meet the method-required QC?	✓				
S7	O	Tentatively identified compounds (TICs)					
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?	✓				
S8	I	Interference Check Sample (ICS) results					
		Were percent recoveries within method QC limits?	✓				
S9	I	Serial dilutions, post digestion spikes, and method of standard additions					
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	✓				
S10	OI	Method detection limit (MDL) studies					
		Was a MDL study performed for each reported analyte?	✓				
		Is the MDL either adjusted or supported by the analysis of DCSs?	✓				
S11	OI	Proficiency test reports					
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	✓				
S12	OI	Standards documentation					
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	✓				
S13	OI	Compound/analyte identification procedures					
		Are the procedures for compound/analyte identification documented?	✓				
S14	OI	Demonstration of analyst competency (DOC)					
		Was DOC conducted consistent with NELAC Chapter 5?	✓				
		Is documentation of the analyst's competency up-to-date and on file?	✓				
S15	OI	Verification/validation documentation for methods (NELAC Chapter 5)					
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	✓				
S16	OI	Laboratory standard operating procedures (SOPs)					
		Are laboratory SOPs current and on file for each method performed?	✓				

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period;
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

Laboratory Data Package Cover Page - Page 4 of 4

Laboratory Name: Eurofins Houston	LRC Date: 02/17/2025
Project Name: AEP Hallsville TX	Laboratory Job Number: 860-89099-1
Reviewer Name: Sachin Kudchadkar	
ER#¹	Description
	No Exceptions
1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).	

- 1
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Case Narrative

Client: Arcadis US Inc.
Project: AEP Hallsville TX

Job ID: 860-89099-1

Job ID: 860-89099-1

Eurofins Houston

Job Narrative 860-89099-1

Revision

The report being provided is a revision of the original report sent on 1/14/2025. The report (revision 2) is being revised due to: sample 860-89-99-67 cancelled per client..

Report revision history

Revision 1 - 2/13/2025 - Reason - TRRP format needed.

Receipt

The samples were received on 12/12/2024 12:05 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 7 coolers at receipt time were 1.4° C, 2.8° C, 3.1° C, 3.7° C, 4.4° C, 4.9° C and 4.9° C.

Receipt Exceptions

We received 38 containers when the COC only listed 14.

Samples not listed on the COC are:

A-12
A-20
A-26
A-27
A-28
A-29
A-30
A-31
A-51
A-52
A-54
A-55
A-57
A-58
A-60
A-61
B-62
A-63
B-63
A-64
B-64
A-66
B-66

C5-3 (12102024) (860-89099-12), C3-2 (12102024) (860-89099-20), A3-2 (12102024) (860-89099-26), A3-3 (12102024) (860-89099-27), A5-2 (12112024) (860-89099-28), A5-3 (12112024) (860-89099-29), B4-2 (12112024) (860-89099-30), B4-3 (12112024) (860-89099-31), E3-2 (12112024) (860-89099-51), E3-3 (12112024) (860-89099-52), E1-2 (12112024) (860-89099-54), E1-3 (12112024) (860-89099-55), D2-2 (12112024) (860-89099-57), D2-3 (12112024) (860-89099-58), C1-2 (12112024) (860-89099-60), C1-3 (12112024) (860-89099-61), B2-2 (12112024) (860-89099-63), B2-3 (12112024) (860-89099-64) and A1-2 (12112024) (860-89099-66)

One container for the following sample was received broken E3-1 (12112024) (860-89099-50).

Affected Container

A-50

RAD

Method 901.1: Gamma Prep Batch 160-694774

Eurofins Houston

Case Narrative

Client: Arcadis US Inc.
Project: AEP Hallsville TX

Job ID: 860-89099-1

Job ID: 860-89099-1 (Continued)

Eurofins Houston

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227
Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

A5-1 (12102024) (860-89099-1), B4-1 (12102024) (860-89099-4), C5-1 (12102024) (860-89099-10), C3-1 (12102024) (860-89099-19), A3-1 (12102024) (860-89099-25), E1-1 (12112024) (860-89099-53), D2-1 (12112024) (860-89099-56), C1-1 (12112024) (860-89099-59), A1-1 (12112024) (860-89099-65), A1-3 (12112024) (860-89099-67) and (860-89099-A-1-E DU)

Methods 901.1, GA-01-R: Gamma Prep Batch 160-694770

Many isotopes requested by gamma spectrometry analysis do not have any gamma emissions, the gamma emissions they do have are very poor, and/or are reported by assuming secular equilibrium with a longer-lived parent (or vice-versa). For example, Th-232 (which does not have a good gamma-ray) is often reported assuming the shorter-lived Ra-228 daughter is in equilibrium with the Th-232 parent. Or, Pb-214 and/or Bi-214, daughters of potentially volatile Rn-222 in the Ra-226 decay chain, may not be in equilibrium with the parent unless sufficient time has been allowed since the break in equilibrium (e.g. 21 days in the case of Ra-226-supported ingrowth). The client should ensure that such inference is acceptable for their sample based upon process knowledge. The following assumptions were made for this report:

Inferred from Reported to Analyte

Th-234	Pa-234
Th-234	U-238
Pb-210	Po-210
Pb-210	Bi-210
Cs-137	Ba-137m
Pb-212	Po-216
Xe-131m	Xe-131
Sb-125	Te-125m
Ag-108m	Ag-108
Rh-106	Ru-106
Pb-212	Th-228
Pb-212	Ra-224
U-235	Th-231
Ac-228	Th-232
Ac-228	Ra-228
Th-227	Ra-223
Th-227	Ac-227

Eurofins Houston

Case Narrative

Client: Arcadis US Inc.
Project: AEP Hallsville TX

Job ID: 860-89099-1

Job ID: 860-89099-1 (Continued)

Eurofins Houston

Th-227	Bi-211
Th-227	Pb-211
Bi-214	Ra-226

**The method blank (MB) Z-score is not within limits and is located in the level IV raw data.

E3-1 (12112024) (860-89099-50), B2-1 (12112024) (860-89099-62) and (860-89099-A-50-C DU)

Method Fill_Geo-21:

Method Fill_Geo-21:

Method Fill_Geo-21:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-205392 and analytical batch 860-205729 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method 6020B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-205382 and analytical batch 860-206019 were outside control limits. Sample matrix interference is suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

Method Moisture: The sample duplicate (DUP) precision for analytical batch 860-206051 was outside control limits. Sample non-homogeneity is suspected.

Method 300.0: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for preparation batch 860-205593 and 860-205594 and analytical batch 860-205896 were outside control limits for one or more analytes. See QC Sample Results for detail. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery is within acceptance limits.

Method Moisture: The sample duplicate (DUP) precision for analytical batch 860-206335 was outside control limits. Sample non-homogeneity is suspected.

Method Dry and Grind:

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Eurofins Houston

Detection Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: A5-1 (12102024)

Lab Sample ID: 860-89099-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.666		0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	1.36	J	3.54	0.911	mg/Kg	5	✳	6020B	Total/NA
Barium	51.7		3.54	1.21	mg/Kg	5	✳	6020B	Total/NA
Chromium	5.54		3.54	0.478	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.609	J	1.77	0.533	mg/Kg	5	✳	6020B	Total/NA
Lead	7.59		1.77	0.561	mg/Kg	5	✳	6020B	Total/NA
Selenium	1.34	J	1.77	0.836	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: B4-1 (12102024)

Lab Sample ID: 860-89099-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.775		0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	1.28	J	1.96	0.506	mg/Kg	5	✳	6020B	Total/NA
Barium	11.0		1.96	0.673	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.33	J	1.96	0.265	mg/Kg	5	✳	6020B	Total/NA
Lead	3.17		0.982	0.311	mg/Kg	5	✳	6020B	Total/NA
Selenium	0.550	J	0.982	0.464	mg/Kg	5	✳	6020B	Total/NA
Mercury	0.0130	J	0.0211	0.00943	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: B5-1 (12102024)

Lab Sample ID: 860-89099-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.209	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	0.973	J	2.03	0.523	mg/Kg	5	✳	6020B	Total/NA
Barium	5.80		2.03	0.696	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.10	J	2.03	0.274	mg/Kg	5	✳	6020B	Total/NA
Lead	2.69		1.02	0.322	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: C5-1 (12102024)

Lab Sample ID: 860-89099-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.123	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	4.27		1.86	0.638	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.14	J	1.86	0.251	mg/Kg	5	✳	6020B	Total/NA
Lead	3.19		0.931	0.295	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: C4-1 (12102024)

Lab Sample ID: 860-89099-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.278	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	8.96		1.95	0.669	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.84	J	1.95	0.264	mg/Kg	5	✳	6020B	Total/NA
Lead	3.19		0.977	0.310	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: D3-1 (12102024)

Lab Sample ID: 860-89099-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.133	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	1.77	J	1.97	0.507	mg/Kg	5	✳	6020B	Total/NA
Barium	16.4		1.97	0.674	mg/Kg	5	✳	6020B	Total/NA
Chromium	4.52		1.97	0.266	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.521	J	0.984	0.297	mg/Kg	5	✳	6020B	Total/NA
Lead	4.43		0.984	0.312	mg/Kg	5	✳	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: D3-1 (12102024) (Continued)

Lab Sample ID: 860-89099-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.0305		0.0219	0.00981	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: C3-1 (12102024)

Lab Sample ID: 860-89099-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.129	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	0.767	J	2.10	0.540	mg/Kg	5	✳	6020B	Total/NA
Barium	9.92		2.10	0.718	mg/Kg	5	✳	6020B	Total/NA
Chromium	2.62		2.10	0.283	mg/Kg	5	✳	6020B	Total/NA
Lead	3.06		1.05	0.332	mg/Kg	5	✳	6020B	Total/NA
Mercury	0.0155	J	0.0221	0.00990	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: B3-1 (12102024)

Lab Sample ID: 860-89099-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.145	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	5.72		2.04	0.698	mg/Kg	5	✳	6020B	Total/NA
Chromium	0.621	J	2.04	0.275	mg/Kg	5	✳	6020B	Total/NA
Lead	1.83		1.02	0.323	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: A3-1 (12102024)

Lab Sample ID: 860-89099-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.148	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	6.10		2.36	0.809	mg/Kg	5	✳	6020B	Total/NA
Chromium	0.862	J	2.36	0.319	mg/Kg	5	✳	6020B	Total/NA
Lead	2.40		1.18	0.374	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: A4-1 (12112024)

Lab Sample ID: 860-89099-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.159	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	1.17	J	2.48	0.640	mg/Kg	5	✳	6020B	Total/NA
Barium	8.68		2.48	0.851	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.44	J	2.48	0.335	mg/Kg	5	✳	6020B	Total/NA
Lead	2.79		1.24	0.394	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: A2-1 (12112024)

Lab Sample ID: 860-89099-35

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.560		0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	0.724	J	2.12	0.545	mg/Kg	5	✳	6020B	Total/NA
Barium	22.9		2.12	0.725	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.62	J	2.12	0.286	mg/Kg	5	✳	6020B	Total/NA
Lead	3.34		1.06	0.336	mg/Kg	5	✳	6020B	Total/NA
Selenium	0.523	J	1.06	0.500	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: B1-1 (12112024)

Lab Sample ID: 860-89099-38

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.284	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	6.89		2.07	0.709	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.23	J	2.07	0.279	mg/Kg	5	✳	6020B	Total/NA
Lead	2.61		1.03	0.328	mg/Kg	5	✳	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C2-1 (12112024)

Lab Sample ID: 860-89099-41

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.332	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	1.21	J	2.00	0.516	mg/Kg	5	✳	6020B	Total/NA
Barium	31.3		2.00	0.686	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.83	J	2.00	0.270	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.385	J	1.00	0.302	mg/Kg	5	✳	6020B	Total/NA
Lead	4.31		1.00	0.318	mg/Kg	5	✳	6020B	Total/NA
Selenium	0.813	J	1.00	0.473	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: D1-1 (12112024)

Lab Sample ID: 860-89099-44

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.343	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	72.5		2.12	0.727	mg/Kg	5	✳	6020B	Total/NA
Chromium	2.54		2.12	0.287	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.495	J	1.06	0.320	mg/Kg	5	✳	6020B	Total/NA
Lead	5.21		1.06	0.337	mg/Kg	5	✳	6020B	Total/NA
Selenium	0.592	J	1.06	0.502	mg/Kg	5	✳	6020B	Total/NA
Mercury	0.0179	J	0.0240	0.0108	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: E2-1 (12112024)

Lab Sample ID: 860-89099-47

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.405	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	0.575	J	2.12	0.547	mg/Kg	5	✳	6020B	Total/NA
Barium	25.8		2.12	0.727	mg/Kg	5	✳	6020B	Total/NA
Chromium	3.94		2.12	0.287	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.862	J	1.06	0.320	mg/Kg	5	✳	6020B	Total/NA
Lead	5.20		1.06	0.337	mg/Kg	5	✳	6020B	Total/NA
Selenium	0.766	J	1.06	0.502	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: E3-1 (12112024)

Lab Sample ID: 860-89099-50

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.131	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	2.86		2.00	0.514	mg/Kg	5	✳	6020B	Total/NA
Barium	23.9		2.00	0.683	mg/Kg	5	✳	6020B	Total/NA
Chromium	8.78		2.00	0.269	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.646	J	0.998	0.301	mg/Kg	5	✳	6020B	Total/NA
Lead	5.30		0.998	0.316	mg/Kg	5	✳	6020B	Total/NA
Selenium	0.740	J	0.998	0.471	mg/Kg	5	✳	6020B	Total/NA
Mercury	0.0214	J	0.0223	0.00996	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: E1-1 (12112024)

Lab Sample ID: 860-89099-53

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.238	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	20.9		2.39	0.820	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.63	J	2.39	0.323	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.427	J	1.20	0.361	mg/Kg	5	✳	6020B	Total/NA
Lead	3.08		1.20	0.379	mg/Kg	5	✳	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Detection Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: D2-1 (12112024)

Lab Sample ID: 860-89099-56

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.348	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	29.5		2.56	0.876	mg/Kg	5	✳	6020B	Total/NA
Chromium	2.05	J	2.56	0.345	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.554	J	1.28	0.386	mg/Kg	5	✳	6020B	Total/NA
Lead	3.88		1.28	0.405	mg/Kg	5	✳	6020B	Total/NA
Selenium	0.646	J	1.28	0.604	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: C1-1 (12112024)

Lab Sample ID: 860-89099-59

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.247	J	0.500	0.100	mg/L	1		300.0	SPLP West
Barium	5.75		2.07	0.710	mg/Kg	5	✳	6020B	Total/NA
Chromium	0.839	J	2.07	0.280	mg/Kg	5	✳	6020B	Total/NA
Lead	2.09		1.04	0.329	mg/Kg	5	✳	6020B	Total/NA

Client Sample ID: B2-1 (12112024)

Lab Sample ID: 860-89099-62

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.129	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	0.538	J	1.95	0.502	mg/Kg	5	✳	6020B	Total/NA
Barium	19.4		1.95	0.667	mg/Kg	5	✳	6020B	Total/NA
Chromium	3.42		1.95	0.263	mg/Kg	5	✳	6020B	Total/NA
Cobalt	0.504	J	0.974	0.294	mg/Kg	5	✳	6020B	Total/NA
Lead	3.56		0.974	0.309	mg/Kg	5	✳	6020B	Total/NA
Selenium	0.586	J	0.974	0.460	mg/Kg	5	✳	6020B	Total/NA
Mercury	0.0118	J	0.0213	0.00953	mg/Kg	1	✳	7471B	Total/NA

Client Sample ID: A1-1 (12112024)

Lab Sample ID: 860-89099-65

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Fluoride	0.278	J	0.500	0.100	mg/L	1		300.0	SPLP West
Arsenic	0.804	J	2.40	0.618	mg/Kg	5	✳	6020B	Total/NA
Barium	17.0		2.40	0.822	mg/Kg	5	✳	6020B	Total/NA
Chromium	1.96	J	2.40	0.324	mg/Kg	5	✳	6020B	Total/NA
Lead	5.48		1.20	0.381	mg/Kg	5	✳	6020B	Total/NA
Selenium	1.06	J	1.20	0.567	mg/Kg	5	✳	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Houston

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: A5-1 (12102024)

Lab Sample ID: 860-89099-1

Date Collected: 12/10/24 11:00

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 47.9

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.666		0.500	0.100	mg/L			12/17/24 12:03	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:04	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	1.04	U	3.54	1.04	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Arsenic	1.36	J	3.54	0.911	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Barium	51.7		3.54	1.21	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Beryllium	0.448	U	1.77	0.448	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Cadmium	0.472	U	1.77	0.472	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Chromium	5.54		3.54	0.478	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Cobalt	0.609	J	1.77	0.533	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Lead	7.59		1.77	0.561	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Molybdenum	0.817	U	1.77	0.817	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Selenium	1.34	J	1.77	0.836	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5
Thallium	0.477	U	1.77	0.477	mg/Kg	✱	12/13/24 14:55	12/17/24 11:08	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0173	U	0.0387	0.0173	mg/Kg	✱	12/18/24 07:02	12/18/24 20:41	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.767		0.167	0.183	1.00	0.134	pCi/g	12/18/24 10:19	01/08/25 15:21	1
Radium-228	0.862		0.217	0.233		0.108	pCi/g	12/18/24 10:19	01/08/25 15:21	1
Radium 226 and 228 (positive only)	1.63		0.274	0.296		0.134	pCi/g	12/18/24 10:19	01/08/25 15:21	1

Client Sample ID: B4-1 (12102024)

Lab Sample ID: 860-89099-4

Date Collected: 12/10/24 11:20

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 86.3

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.775		0.500	0.100	mg/L			12/17/24 17:36	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:16	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.576	U	1.96	0.576	mg/Kg	✱	12/13/24 14:55	12/17/24 11:23	5
Arsenic	1.28	J	1.96	0.506	mg/Kg	✱	12/13/24 14:55	12/17/24 11:23	5
Barium	11.0		1.96	0.673	mg/Kg	✱	12/13/24 14:55	12/17/24 11:23	5
Beryllium	0.248	U	0.982	0.248	mg/Kg	✱	12/13/24 14:55	12/17/24 11:23	5
Cadmium	0.262	U	0.982	0.262	mg/Kg	✱	12/13/24 14:55	12/17/24 11:23	5

Eurofins Houston

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: B4-1 (12102024)

Lab Sample ID: 860-89099-4

Date Collected: 12/10/24 11:20

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 86.3

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.33	J	1.96	0.265	mg/Kg	☼	12/13/24 14:55	12/17/24 11:23	5
Cobalt	0.296	U	0.982	0.296	mg/Kg	☼	12/13/24 14:55	12/17/24 11:23	5
Lead	3.17		0.982	0.311	mg/Kg	☼	12/13/24 14:55	12/17/24 11:23	5
Molybdenum	0.454	U	0.982	0.454	mg/Kg	☼	12/13/24 14:55	12/17/24 11:23	5
Selenium	0.550	J	0.982	0.464	mg/Kg	☼	12/13/24 14:55	12/17/24 11:23	5
Thallium	0.265	U	0.982	0.265	mg/Kg	☼	12/13/24 14:55	12/17/24 11:23	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0130	J	0.0211	0.00943	mg/Kg	☼	12/18/24 07:02	12/18/24 20:51	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.737		0.177	0.191	1.00	0.136	pCi/g	12/18/24 10:19	01/08/25 18:07	1
Radium-228	1.18		0.311	0.332		0.150	pCi/g	12/18/24 10:19	01/08/25 18:07	1
Radium 226 and 228 (positive only)	1.92		0.358	0.383		0.150	pCi/g	12/18/24 10:19	01/08/25 18:07	1

Client Sample ID: B5-1 (12102024)

Lab Sample ID: 860-89099-7

Date Collected: 12/10/24 12:00

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 82.0

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.209	J	0.500	0.100	mg/L			12/17/24 13:03	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:18	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.597	U	2.03	0.597	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Arsenic	0.973	J	2.03	0.523	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Barium	5.80		2.03	0.696	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Beryllium	0.257	U	1.02	0.257	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Cadmium	0.271	U	1.02	0.271	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Chromium	1.10	J	2.03	0.274	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Cobalt	0.306	U	1.02	0.306	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Lead	2.69		1.02	0.322	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Molybdenum	0.470	U	1.02	0.470	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Selenium	0.480	U	1.02	0.480	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5
Thallium	0.274	U	1.02	0.274	mg/Kg	☼	12/13/24 14:55	12/17/24 11:25	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0103	U	0.0230	0.0103	mg/Kg	☼	12/18/24 07:02	12/18/24 21:03	1

Eurolins Houston

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C5-1 (12102024)

Lab Sample ID: 860-89099-10

Date Collected: 12/10/24 12:25

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 94.2

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.123	J	0.500	0.100	mg/L			12/17/24 12:48	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:20	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.546	U	1.86	0.546	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Arsenic	0.479	U	1.86	0.479	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Barium	4.27		1.86	0.638	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Beryllium	0.235	U	0.931	0.235	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Cadmium	0.248	U	0.931	0.248	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Chromium	1.14	J	1.86	0.251	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Cobalt	0.281	U	0.931	0.281	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Lead	3.19		0.931	0.295	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Molybdenum	0.430	U	0.931	0.430	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Selenium	0.440	U	0.931	0.440	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5
Thallium	0.251	U	0.931	0.251	mg/Kg	✱	12/13/24 14:55	12/17/24 11:27	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00931	U	0.0208	0.00931	mg/Kg	✱	12/18/24 07:02	12/18/24 20:52	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.740		0.152	0.169	1.00	0.120	pCi/g	12/18/24 10:19	01/08/25 18:07	1
Radium-228	0.526		0.191	0.198		0.232	pCi/g	12/18/24 10:19	01/08/25 18:07	1
Radium-226 and 228 (positive only)	1.27		0.244	0.260		0.232	pCi/g	12/18/24 10:19	01/08/25 18:07	1

Client Sample ID: C4-1 (12102024)

Lab Sample ID: 860-89099-13

Date Collected: 12/10/24 14:35

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 85.3

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.278	J	0.500	0.100	mg/L			12/17/24 18:36	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:21	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.573	U	1.95	0.573	mg/Kg	✱	12/13/24 14:55	12/17/24 11:29	5
Arsenic	0.503	U	1.95	0.503	mg/Kg	✱	12/13/24 14:55	12/17/24 11:29	5
Barium	8.96		1.95	0.669	mg/Kg	✱	12/13/24 14:55	12/17/24 11:29	5
Beryllium	0.247	U	0.977	0.247	mg/Kg	✱	12/13/24 14:55	12/17/24 11:29	5
Cadmium	0.261	U	0.977	0.261	mg/Kg	✱	12/13/24 14:55	12/17/24 11:29	5

Eurofins Houston

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C4-1 (12102024)

Date Collected: 12/10/24 14:35

Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-13

Matrix: Solid

Percent Solids: 85.3

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	1.84	J	1.95	0.264	mg/Kg	☼	12/13/24 14:55	12/17/24 11:29	5
Cobalt	0.295	U	0.977	0.295	mg/Kg	☼	12/13/24 14:55	12/17/24 11:29	5
Lead	3.19		0.977	0.310	mg/Kg	☼	12/13/24 14:55	12/17/24 11:29	5
Molybdenum	0.451	U	0.977	0.451	mg/Kg	☼	12/13/24 14:55	12/17/24 11:29	5
Selenium	0.462	U	0.977	0.462	mg/Kg	☼	12/13/24 14:55	12/17/24 11:29	5
Thallium	0.263	U	0.977	0.263	mg/Kg	☼	12/13/24 14:55	12/17/24 11:29	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00972	U	0.0217	0.00972	mg/Kg	☼	12/18/24 07:02	12/18/24 20:54	1

Client Sample ID: D3-1 (12102024)

Date Collected: 12/10/24 15:00

Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-16

Matrix: Solid

Percent Solids: 86.1

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.133	J	0.500	0.100	mg/L			12/17/24 18:21	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:23	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.578	U	1.97	0.578	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Arsenic	1.77	J	1.97	0.507	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Barium	16.4		1.97	0.674	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Beryllium	0.249	U	0.984	0.249	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Cadmium	0.263	U	0.984	0.263	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Chromium	4.52		1.97	0.266	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Cobalt	0.521	J	0.984	0.297	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Lead	4.43		0.984	0.312	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Molybdenum	0.455	U	0.984	0.455	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Selenium	0.465	U	0.984	0.465	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5
Thallium	0.265	U	0.984	0.265	mg/Kg	☼	12/13/24 14:55	12/17/24 11:31	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0305		0.0219	0.00981	mg/Kg	☼	12/18/24 07:02	12/18/24 20:55	1

Client Sample ID: C3-1 (12102024)

Date Collected: 12/10/24 15:20

Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-19

Matrix: Solid

Percent Solids: 83.7

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.129	J	0.500	0.100	mg/L			12/17/24 18:06	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:25	1

Eurofins Houston

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C3-1 (12102024)

Lab Sample ID: 860-89099-19

Date Collected: 12/10/24 15:20

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 83.7

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.615	U	2.10	0.615	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Arsenic	0.767	J	2.10	0.540	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Barium	9.92		2.10	0.718	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Beryllium	0.265	U	1.05	0.265	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Cadmium	0.280	U	1.05	0.280	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Chromium	2.62		2.10	0.283	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Cobalt	0.316	U	1.05	0.316	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Lead	3.06		1.05	0.332	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Molybdenum	0.484	U	1.05	0.484	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Selenium	0.495	U	1.05	0.495	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5
Thallium	0.282	U	1.05	0.282	mg/Kg	☼	12/13/24 14:55	12/17/24 11:33	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0155	J	0.0221	0.00990	mg/Kg	☼	12/18/24 07:02	12/18/24 20:56	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.952		0.175	0.198	1.00	0.143	pCi/g	12/18/24 10:19	01/08/25 18:07	1
Radium-228	0.814		0.235	0.248		0.190	pCi/g	12/18/24 10:19	01/08/25 18:07	1
Radium 226 and 228 (positive only)	1.77		0.293	0.317		0.190	pCi/g	12/18/24 10:19	01/08/25 18:07	1

Client Sample ID: B3-1 (12102024)

Lab Sample ID: 860-89099-22

Date Collected: 12/10/24 15:40

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 84.6

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.145	J	0.500	0.100	mg/L			12/17/24 17:51	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:27	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.598	U	2.04	0.598	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Arsenic	0.525	U	2.04	0.525	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Barium	5.72		2.04	0.698	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Beryllium	0.258	U	1.02	0.258	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Cadmium	0.272	U	1.02	0.272	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Chromium	0.621	J	2.04	0.275	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Cobalt	0.307	U	1.02	0.307	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Lead	1.83		1.02	0.323	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Molybdenum	0.471	U	1.02	0.471	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Selenium	0.481	U	1.02	0.481	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5
Thallium	0.275	U	1.02	0.275	mg/Kg	☼	12/13/24 14:55	12/17/24 11:35	5

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Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: B3-1 (12102024)

Date Collected: 12/10/24 15:40
Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-22

Matrix: Solid
Percent Solids: 84.6

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00962	U	0.0215	0.00962	mg/Kg	☼	12/18/24 07:02	12/18/24 20:58	1

Client Sample ID: A3-1 (12102024)

Date Collected: 12/10/24 16:00
Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-25

Matrix: Solid
Percent Solids: 71.8

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.148	J	0.500	0.100	mg/L			12/17/24 12:33	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:28	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.693	U	2.36	0.693	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Arsenic	0.608	U	2.36	0.608	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Barium	6.10		2.36	0.809	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Beryllium	0.299	U	1.18	0.299	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Cadmium	0.315	U	1.18	0.315	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Chromium	0.862	J	2.36	0.319	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Cobalt	0.356	U	1.18	0.356	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Lead	2.40		1.18	0.374	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Molybdenum	0.545	U	1.18	0.545	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Selenium	0.558	U	1.18	0.558	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5
Thallium	0.318	U	1.18	0.318	mg/Kg	☼	12/13/24 14:55	12/17/24 11:37	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0125	U	0.0279	0.0125	mg/Kg	☼	12/18/24 07:02	12/18/24 21:02	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count		RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Total Uncert. (2σ+/-)						
Radium-226	0.714		0.169	0.183	1.00	0.171	pCi/g	12/18/24 10:19	01/08/25 18:08	1
Radium-228	0.926		0.238	0.254		0.181	pCi/g	12/18/24 10:19	01/08/25 18:08	1
Radium 226 and 228 (positive only)	1.64		0.292	0.313		0.181	pCi/g	12/18/24 10:19	01/08/25 18:08	1

Client Sample ID: A4-1 (12112024)

Date Collected: 12/11/24 12:50
Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-32

Matrix: Solid
Percent Solids: 67.1

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.159	J	0.500	0.100	mg/L			12/17/24 20:06	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:30	1

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Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: A4-1 (12112024)

Date Collected: 12/11/24 12:50

Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-32

Matrix: Solid

Percent Solids: 67.1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.729	U	2.48	0.729	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Arsenic	1.17	J	2.48	0.640	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Barium	8.68		2.48	0.851	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Beryllium	0.314	U	1.24	0.314	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Cadmium	0.332	U	1.24	0.332	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Chromium	1.44	J	2.48	0.335	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Cobalt	0.374	U	1.24	0.374	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Lead	2.79		1.24	0.394	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Molybdenum	0.574	U	1.24	0.574	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Selenium	0.587	U	1.24	0.587	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5
Thallium	0.335	U	1.24	0.335	mg/Kg	☼	12/13/24 14:55	12/17/24 11:39	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0121	U	0.0271	0.0121	mg/Kg	☼	12/18/24 07:02	12/18/24 21:05	1

Client Sample ID: A2-1 (12112024)

Date Collected: 12/11/24 13:05

Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-35

Matrix: Solid

Percent Solids: 78.7

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.560		0.500	0.100	mg/L			12/17/24 19:51	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:32	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.622	U	2.12	0.622	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Arsenic	0.724	J	2.12	0.545	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Barium	22.9		2.12	0.725	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Beryllium	0.268	U	1.06	0.268	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Cadmium	0.283	U	1.06	0.283	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Chromium	1.62	J	2.12	0.286	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Cobalt	0.319	U	1.06	0.319	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Lead	3.34		1.06	0.336	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Molybdenum	0.489	U	1.06	0.489	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Selenium	0.523	J	1.06	0.500	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5
Thallium	0.285	U	1.06	0.285	mg/Kg	☼	12/13/24 14:55	12/17/24 11:41	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0105	U	0.0235	0.0105	mg/Kg	☼	12/18/24 07:02	12/18/24 21:06	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: B1-1 (12112024)

Lab Sample ID: 860-89099-38

Date Collected: 12/11/24 13:15

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 84.8

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.284	J	0.500	0.100	mg/L			12/17/24 19:36	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:37	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.607	U	2.07	0.607	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Arsenic	0.533	U	2.07	0.533	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Barium	6.89		2.07	0.709	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Beryllium	0.262	U	1.03	0.262	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Cadmium	0.276	U	1.03	0.276	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Chromium	1.23	J	2.07	0.279	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Cobalt	0.312	U	1.03	0.312	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Lead	2.61		1.03	0.328	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Molybdenum	0.478	U	1.03	0.478	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Selenium	0.489	U	1.03	0.489	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5
Thallium	0.279	U	1.03	0.279	mg/Kg	✱	12/13/24 14:55	12/17/24 11:53	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0106	U	0.0236	0.0106	mg/Kg	✱	12/18/24 07:02	12/18/24 21:14	1

Client Sample ID: C2-1 (12112024)

Lab Sample ID: 860-89099-41

Date Collected: 12/11/24 13:30

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 84.6

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.332	J	0.500	0.100	mg/L			12/17/24 19:21	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:39	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.588	U	2.00	0.588	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Arsenic	1.21	J	2.00	0.516	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Barium	31.3		2.00	0.686	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Beryllium	0.253	U	1.00	0.253	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Cadmium	0.267	U	1.00	0.267	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Chromium	1.83	J	2.00	0.270	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Cobalt	0.385	J	1.00	0.302	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Lead	4.31		1.00	0.318	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Molybdenum	0.463	U	1.00	0.463	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Selenium	0.813	J	1.00	0.473	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5
Thallium	0.270	U	1.00	0.270	mg/Kg	✱	12/13/24 14:55	12/17/24 11:55	5

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Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C2-1 (12112024)

Date Collected: 12/11/24 13:30

Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-41

Matrix: Solid

Percent Solids: 84.6

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00962	U	0.0215	0.00962	mg/Kg	☼	12/18/24 07:02	12/18/24 21:18	1

Client Sample ID: D1-1 (12112024)

Date Collected: 12/11/24 13:40

Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-44

Matrix: Solid

Percent Solids: 78.5

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.343	J	0.500	0.100	mg/L	-		12/17/24 19:06	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L	-	12/17/24 09:30	12/17/24 17:40	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.623	U	2.12	0.623	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Arsenic	0.547	U	2.12	0.547	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Barium	72.5		2.12	0.727	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Beryllium	0.269	U	1.06	0.269	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Cadmium	0.283	U	1.06	0.283	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Chromium	2.54		2.12	0.287	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Cobalt	0.495	J	1.06	0.320	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Lead	5.21		1.06	0.337	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Molybdenum	0.490	U	1.06	0.490	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Selenium	0.592	J	1.06	0.502	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5
Thallium	0.286	U	1.06	0.286	mg/Kg	☼	12/13/24 14:55	12/17/24 11:57	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0179	J	0.0240	0.0108	mg/Kg	☼	12/18/24 07:02	12/18/24 21:19	1

Client Sample ID: E2-1 (12112024)

Date Collected: 12/11/24 13:50

Date Received: 12/12/24 12:05

Lab Sample ID: 860-89099-47

Matrix: Solid

Percent Solids: 82.6

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.405	J	0.500	0.100	mg/L	-		12/17/24 21:37	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L	-	12/17/24 09:30	12/17/24 17:42	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.623	U	2.12	0.623	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Arsenic	0.575	J	2.12	0.547	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Barium	25.8		2.12	0.727	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Beryllium	0.269	U	1.06	0.269	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Cadmium	0.284	U	1.06	0.284	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Chromium	3.94		2.12	0.287	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5

Eurofins Houston

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: E2-1 (12112024)

Lab Sample ID: 860-89099-47

Date Collected: 12/11/24 13:50

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 82.6

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	0.862	J	1.06	0.320	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Lead	5.20		1.06	0.337	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Molybdenum	0.491	U	1.06	0.491	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Selenium	0.766	J	1.06	0.502	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5
Thallium	0.286	U	1.06	0.286	mg/Kg	☼	12/13/24 14:55	12/17/24 11:59	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0100	U	0.0224	0.0100	mg/Kg	☼	12/18/24 07:02	12/18/24 21:21	1

Client Sample ID: E3-1 (12112024)

Lab Sample ID: 860-89099-50

Date Collected: 12/11/24 14:05

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 86.4

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.131	J	0.500	0.100	mg/L			12/17/24 21:22	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:44	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.586	U	2.00	0.586	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Arsenic	2.86		2.00	0.514	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Barium	23.9		2.00	0.683	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Beryllium	0.252	U	0.998	0.252	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Cadmium	0.266	U	0.998	0.266	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Chromium	8.78		2.00	0.269	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Cobalt	0.646	J	0.998	0.301	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Lead	5.30		0.998	0.316	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Molybdenum	0.461	U	0.998	0.461	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Selenium	0.740	J	0.998	0.471	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5
Thallium	0.269	U	0.998	0.269	mg/Kg	☼	12/13/24 14:55	12/17/24 12:01	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0214	J	0.0223	0.00996	mg/Kg	☼	12/18/24 07:02	12/18/24 21:22	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	1.40		0.263	0.298	1.00	0.170	pCi/g	12/20/24 11:10	01/13/25 10:00	1
Radium-228	1.03		0.236	0.256		0.248	pCi/g	12/20/24 11:10	01/13/25 10:00	1
Radium 226 and 228 (positive only)	2.43		0.353	0.393		0.248	pCi/g	12/20/24 11:10	01/13/25 10:00	1

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: E1-1 (12112024)

Lab Sample ID: 860-89099-53

Date Collected: 12/11/24 14:25

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 70.8

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.238	J	0.500	0.100	mg/L			12/17/24 20:52	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:45	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.703	U	2.39	0.703	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Arsenic	0.616	U	2.39	0.616	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Barium	20.9		2.39	0.820	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Beryllium	0.303	U	1.20	0.303	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Cadmium	0.320	U	1.20	0.320	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Chromium	1.63	J	2.39	0.323	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Cobalt	0.427	J	1.20	0.361	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Lead	3.08		1.20	0.379	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Molybdenum	0.553	U	1.20	0.553	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Selenium	0.566	U	1.20	0.566	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5
Thallium	0.323	U	1.20	0.323	mg/Kg	✱	12/13/24 14:55	12/17/24 12:03	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0115	U	0.0257	0.0115	mg/Kg	✱	12/18/24 07:02	12/18/24 21:24	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.831		0.211	0.226	1.00	0.188	pCi/g	12/18/24 10:19	01/08/25 18:08	1
Radium-228	0.704		0.391	0.397		0.392	pCi/g	12/18/24 10:19	01/08/25 18:08	1
Radium 226 and 228 (positive only)	1.54		0.444	0.457		0.392	pCi/g	12/18/24 10:19	01/08/25 18:08	1

Client Sample ID: D2-1 (12112024)

Lab Sample ID: 860-89099-56

Date Collected: 12/11/24 14:40

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 68.6

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.348	J	0.500	0.100	mg/L			12/17/24 21:07	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:47	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.751	U	2.56	0.751	mg/Kg	✱	12/13/24 14:55	12/17/24 12:05	5
Arsenic	0.659	U	2.56	0.659	mg/Kg	✱	12/13/24 14:55	12/17/24 12:05	5
Barium	29.5		2.56	0.876	mg/Kg	✱	12/13/24 14:55	12/17/24 12:05	5
Beryllium	0.324	U	1.28	0.324	mg/Kg	✱	12/13/24 14:55	12/17/24 12:05	5
Cadmium	0.341	U	1.28	0.341	mg/Kg	✱	12/13/24 14:55	12/17/24 12:05	5

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Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: D2-1 (12112024)

Lab Sample ID: 860-89099-56

Date Collected: 12/11/24 14:40

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 68.6

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	2.05	J	2.56	0.345	mg/Kg	☼	12/13/24 14:55	12/17/24 12:05	5
Cobalt	0.554	J	1.28	0.386	mg/Kg	☼	12/13/24 14:55	12/17/24 12:05	5
Lead	3.88		1.28	0.405	mg/Kg	☼	12/13/24 14:55	12/17/24 12:05	5
Molybdenum	0.591	U	1.28	0.591	mg/Kg	☼	12/13/24 14:55	12/17/24 12:05	5
Selenium	0.646	J	1.28	0.604	mg/Kg	☼	12/13/24 14:55	12/17/24 12:05	5
Thallium	0.345	U	1.28	0.345	mg/Kg	☼	12/13/24 14:55	12/17/24 12:05	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0121	U	0.0270	0.0121	mg/Kg	☼	12/18/24 07:02	12/18/24 21:25	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.826		0.169	0.188	1.00	0.119	pCi/g	12/18/24 10:19	01/08/25 18:43	1
Radium-228	0.431		0.180	0.185		0.394	pCi/g	12/18/24 10:19	01/08/25 18:43	1
Radium 226 and 228 (positive only)	1.26		0.247	0.264		0.394	pCi/g	12/18/24 10:19	01/08/25 18:43	1

Client Sample ID: C1-1 (12112024)

Lab Sample ID: 860-89099-59

Date Collected: 12/11/24 14:55

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 80.4

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.247	J	0.500	0.100	mg/L			12/18/24 10:53	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/18/24 09:00	12/18/24 16:26	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.608	U	2.07	0.608	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Arsenic	0.534	U	2.07	0.534	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Barium	5.75		2.07	0.710	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Beryllium	0.262	U	1.04	0.262	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Cadmium	0.277	U	1.04	0.277	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Chromium	0.839	J	2.07	0.280	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Cobalt	0.313	U	1.04	0.313	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Lead	2.09		1.04	0.329	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Molybdenum	0.479	U	1.04	0.479	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Selenium	0.490	U	1.04	0.490	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5
Thallium	0.279	U	1.04	0.279	mg/Kg	☼	12/13/24 14:55	12/17/24 12:07	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0109	U	0.0244	0.0109	mg/Kg	☼	12/18/24 07:02	12/18/24 21:26	1

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Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C1-1 (12112024)

Lab Sample ID: 860-89099-59

Date Collected: 12/11/24 14:55

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 80.4

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	0.594		0.136	0.148	1.00	0.113	pCi/g	12/18/24 10:19	01/08/25 18:44	1
Radium-228	0.921		0.187	0.207		0.144	pCi/g	12/18/24 10:19	01/08/25 18:44	1
Radium 226 and 228 (positive only)	1.52		0.231	0.254		0.144	pCi/g	12/18/24 10:19	01/08/25 18:44	1

Client Sample ID: B2-1 (12112024)

Lab Sample ID: 860-89099-62

Date Collected: 12/11/24 15:10

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 87.0

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.129	J	0.500	0.100	mg/L			12/17/24 20:37	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:49	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.572	U	1.95	0.572	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Arsenic	0.538	J	1.95	0.502	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Barium	19.4		1.95	0.667	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Beryllium	0.246	U	0.974	0.246	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Cadmium	0.260	U	0.974	0.260	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Chromium	3.42		1.95	0.263	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Cobalt	0.504	J	0.974	0.294	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Lead	3.56		0.974	0.309	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Molybdenum	0.450	U	0.974	0.450	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Selenium	0.586	J	0.974	0.460	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5
Thallium	0.263	U	0.974	0.263	mg/Kg	⊛	12/13/24 14:55	12/17/24 12:09	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0118	J	0.0213	0.00953	mg/Kg	⊛	12/18/24 07:02	12/18/24 21:28	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert.	Uncert.						
			(2σ+/-)	(2σ+/-)						
Radium-226	1.05		0.165	0.195	1.00	0.110	pCi/g	12/20/24 11:10	01/13/25 10:00	1
Radium-228	1.10		0.224	0.249		0.0847	pCi/g	12/20/24 11:10	01/13/25 10:00	1
Radium 226 and 228 (positive only)	2.15		0.278	0.316		0.110	pCi/g	12/20/24 11:10	01/13/25 10:00	1

Eurofins Houston

Client Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: A1-1 (12112024)

Lab Sample ID: 860-89099-65

Date Collected: 12/11/24 15:35

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 70.6

Method: EPA 300.0 - Anions, Ion Chromatography - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.278	J	0.500	0.100	mg/L			12/17/24 22:37	1

Method: SW846 6010D - Metals (ICP) - SPLP West

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 08:30	12/17/24 18:08	1

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.705	U	2.40	0.705	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Arsenic	0.804	J	2.40	0.618	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Barium	17.0		2.40	0.822	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Beryllium	0.304	U	1.20	0.304	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Cadmium	0.320	U	1.20	0.320	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Chromium	1.96	J	2.40	0.324	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Cobalt	0.362	U	1.20	0.362	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Lead	5.48		1.20	0.381	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Molybdenum	0.555	U	1.20	0.555	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Selenium	1.06	J	1.20	0.567	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5
Thallium	0.323	U	1.20	0.323	mg/Kg	⊛	12/13/24 14:58	12/13/24 20:13	5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0115	U	0.0258	0.0115	mg/Kg	⊛	12/18/24 06:59	12/18/24 20:22	1

Method: EPA 901.1 - Radium-226 & Other Gamma Emitters (GS)

Analyte	Result	Qualifier	Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
			Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.674		0.180	0.192	1.00	0.140	pCi/g	12/18/24 10:19	01/08/25 18:45	1
Radium-228	0.598		0.294	0.300		0.446	pCi/g	12/18/24 10:19	01/08/25 18:45	1
Radium 226 and 228 (positive only)	1.27		0.345	0.356		0.446	pCi/g	12/18/24 10:19	01/08/25 18:45	1

QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 860-205896/3
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.100	U	0.500	0.100	mg/L			12/17/24 10:03	1

Lab Sample ID: MB 860-205896/62
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.100	U	0.500	0.100	mg/L			12/17/24 22:07	1

Lab Sample ID: LCS 860-205896/4
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.385		mg/L		94	90 - 110

Lab Sample ID: LCS 860-205896/63
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	9.656		mg/L		97	90 - 110

Lab Sample ID: LCSD 860-205896/5
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	10.0	9.851		mg/L		99	90 - 110	5	20

Lab Sample ID: LCSD 860-205896/64
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	10.0	10.11		mg/L		101	90 - 110	5	20

Lab Sample ID: MB 860-206238/3
Matrix: Solid
Analysis Batch: 206238

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.100	U	0.500	0.100	mg/L			12/18/24 10:20	1

Lab Sample ID: LCS 860-206238/4
Matrix: Solid
Analysis Batch: 206238

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	10.0	10.05		mg/L		101	90 - 110

Eurofins Houston

QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LCSD 860-206238/5
Matrix: Solid
Analysis Batch: 206238

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	10.0	10.03		mg/L		100	90 - 110	0	20

Lab Sample ID: LLCS 860-206238/6
Matrix: Solid
Analysis Batch: 206238

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LLCS Result	LLCS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.500	0.5043		mg/L		101	50 - 150

Lab Sample ID: LB 860-205593/1-A
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: Method Blank
Prep Type: SPLP West

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.100	U	0.500	0.100	mg/L			12/17/24 11:25	1

Lab Sample ID: LB 860-205594/1-A
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: Method Blank
Prep Type: SPLP West

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.100	U	0.500	0.100	mg/L			12/17/24 22:30	1

Lab Sample ID: 860-89099-1 MS
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: A5-1 (12102024)
Prep Type: SPLP West

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.666		10.0	7.823	N1	mg/L		72	90 - 110

Lab Sample ID: 860-89099-1 MSD
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: A5-1 (12102024)
Prep Type: SPLP West

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.666		10.0	7.938	N1	mg/L		73	90 - 110	1	15

Lab Sample ID: 860-89099-65 MSD
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: A1-1 (12112024)
Prep Type: SPLP West

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.278	J	10.0	11.75	N1	mg/L		115	90 - 110	0	15

Lab Sample ID: 860-89099-C-65-D MS
Matrix: Solid
Analysis Batch: 205896

Client Sample ID: 860-89099-C-65-D MS
Prep Type: SPLP West

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	1.00	U	10.0	11.80	N1	mg/L		118	90 - 110

Eurofins Houston

QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: LB 860-206003/1-A
Matrix: Solid
Analysis Batch: 206238

Client Sample ID: Method Blank
Prep Type: SPLP West

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.100	U	0.500	0.100	mg/L			12/18/24 10:47	1

Lab Sample ID: 860-89099-59 MS
Matrix: Solid
Analysis Batch: 206238

Client Sample ID: C1-1 (12112024)
Prep Type: SPLP West

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Fluoride	0.247	J	10.0	10.93		mg/L		107	90 - 110

Lab Sample ID: 860-89099-59 MSD
Matrix: Solid
Analysis Batch: 206238

Client Sample ID: C1-1 (12112024)
Prep Type: SPLP West

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Fluoride	0.247	J	10.0	10.95		mg/L		107	90 - 110	0	15

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 860-205873/1-A
Matrix: Solid
Analysis Batch: 206208

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205873

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 08:30	12/17/24 17:44	1

Lab Sample ID: LCS 860-205873/2-A
Matrix: Solid
Analysis Batch: 206208

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205873

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1.00	0.9960		mg/L		100	80 - 120

Lab Sample ID: LCSD 860-205873/3-A
Matrix: Solid
Analysis Batch: 206208

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 205873

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	1.00	0.9980		mg/L		100	80 - 120	0	20

Lab Sample ID: MB 860-205894/1-A
Matrix: Solid
Analysis Batch: 206223

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205894

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 16:57	1

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QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 6010D - Metals (ICP) (Continued)

Lab Sample ID: LCS 860-205894/2-A
Matrix: Solid
Analysis Batch: 206223

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205894

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1.00	0.9370		mg/L		94	80 - 120

Lab Sample ID: LCSD 860-205894/3-A
Matrix: Solid
Analysis Batch: 206223

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 205894

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	1.00	0.9410		mg/L		94	80 - 120	0	20

Lab Sample ID: MB 860-206225/1-A
Matrix: Solid
Analysis Batch: 206521

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206225

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/18/24 09:00	12/18/24 16:19	1

Lab Sample ID: LCS 860-206225/2-A
Matrix: Solid
Analysis Batch: 206521

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206225

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	1.00	1.020		mg/L		102	80 - 120

Lab Sample ID: LCSD 860-206225/3-A
Matrix: Solid
Analysis Batch: 206521

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 206225

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	1.00	1.020		mg/L		102	80 - 120	0	20

Lab Sample ID: LB 860-205594/1-B
Matrix: Solid
Analysis Batch: 206208

Client Sample ID: Method Blank
Prep Type: SPLP West
Prep Batch: 205873

Analyte	LB Result	LB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 08:30	12/17/24 17:49	1

Lab Sample ID: 880-51786-A-4-H MS
Matrix: Solid
Analysis Batch: 206208

Client Sample ID: Matrix Spike
Prep Type: SPLP West
Prep Batch: 205873

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lithium	0.0174	U	1.00	1.000		mg/L		100	75 - 125

Lab Sample ID: 880-51786-A-4-I MSD
Matrix: Solid
Analysis Batch: 206208

Client Sample ID: Matrix Spike Duplicate
Prep Type: SPLP West
Prep Batch: 205873

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Lithium	0.0174	U	1.00	0.9890		mg/L		99	75 - 125	1	20

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QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 6010D - Metals (ICP)

Lab Sample ID: LB 860-205593/1-B
Matrix: Solid
Analysis Batch: 206223

Client Sample ID: Method Blank
Prep Type: SPLP West
Prep Batch: 205894

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/17/24 09:30	12/17/24 17:02	1

Lab Sample ID: 860-89099-1 MS
Matrix: Solid
Analysis Batch: 206223

Client Sample ID: A5-1 (12102024)
Prep Type: SPLP West
Prep Batch: 205894

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Lithium	0.0174	U	1.00	0.8480		mg/L		85	75 - 125

Lab Sample ID: 860-89099-1 MSD
Matrix: Solid
Analysis Batch: 206223

Client Sample ID: A5-1 (12102024)
Prep Type: SPLP West
Prep Batch: 205894

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec Limits	RPD	Limit
				Result	Qualifier						
Lithium	0.0174	U	1.00	0.7700		mg/L		77	75 - 125	10	20

Lab Sample ID: LB 860-206003/1-B
Matrix: Solid
Analysis Batch: 206521

Client Sample ID: Method Blank
Prep Type: SPLP West
Prep Batch: 206225

Analyte	LB LB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lithium	0.0174	U	0.0400	0.0174	mg/L		12/18/24 09:00	12/18/24 16:24	1

Lab Sample ID: 860-89099-59 MS
Matrix: Solid
Analysis Batch: 206521

Client Sample ID: C1-1 (12112024)
Prep Type: SPLP West
Prep Batch: 206225

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec Limits
				Result	Qualifier				
Lithium	0.0174	U	1.00	1.010		mg/L		101	75 - 125

Lab Sample ID: 860-89099-59 MSD
Matrix: Solid
Analysis Batch: 206521

Client Sample ID: C1-1 (12112024)
Prep Type: SPLP West
Prep Batch: 206225

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD MSD		Unit	D	%Rec	%Rec Limits	RPD	Limit
				Result	Qualifier						
Lithium	0.0174	U	1.00	1.020		mg/L		102	75 - 125	1	20

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 860-205382/1-A
Matrix: Solid
Analysis Batch: 206019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205382

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Antimony	0.117	U	0.400	0.117	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Arsenic	0.103	U	0.400	0.103	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Barium	0.137	U	0.400	0.137	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Beryllium	0.0506	U	0.200	0.0506	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Cadmium	0.0534	U	0.200	0.0534	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Chromium	0.0540	U	0.400	0.0540	mg/Kg		12/13/24 14:55	12/17/24 11:00	1

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QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 860-205382/1-A
Matrix: Solid
Analysis Batch: 206019

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205382

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cobalt	0.0603	U	0.200	0.0603	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Lead	0.0634	U	0.200	0.0634	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Molybdenum	0.0924	U	0.200	0.0924	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Selenium	0.0945	U	0.200	0.0945	mg/Kg		12/13/24 14:55	12/17/24 11:00	1
Thallium	0.0539	U	0.200	0.0539	mg/Kg		12/13/24 14:55	12/17/24 11:00	1

Lab Sample ID: LCS 860-205382/2-A
Matrix: Solid
Analysis Batch: 206019

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205382

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	10.0	9.769		mg/Kg		98	80 - 120
Barium	10.0	9.341		mg/Kg		93	80 - 120
Beryllium	10.0	9.586		mg/Kg		96	80 - 120
Cadmium	10.0	9.609		mg/Kg		96	80 - 120
Chromium	10.0	9.643		mg/Kg		96	80 - 120
Cobalt	10.0	9.131		mg/Kg		91	80 - 120
Lead	10.0	9.490		mg/Kg		95	80 - 120
Molybdenum	10.0	9.750		mg/Kg		98	80 - 120
Selenium	10.0	9.641		mg/Kg		96	80 - 120
Thallium	10.0	9.485		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 860-205382/3-A
Matrix: Solid
Analysis Batch: 206019

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 205382

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	
								RPD	Limit
Antimony	10.0	9.795		mg/Kg		98	80 - 120	0	20
Arsenic	10.0	9.722		mg/Kg		97	80 - 120	0	20
Barium	10.0	9.248		mg/Kg		92	80 - 120	1	20
Beryllium	10.0	9.458		mg/Kg		95	80 - 120	1	20
Cadmium	10.0	9.571		mg/Kg		96	80 - 120	0	20
Chromium	10.0	9.618		mg/Kg		96	80 - 120	0	20
Cobalt	10.0	9.105		mg/Kg		91	80 - 120	0	20
Lead	10.0	9.463		mg/Kg		95	80 - 120	0	20
Molybdenum	10.0	9.784		mg/Kg		98	80 - 120	0	20
Selenium	10.0	9.455		mg/Kg		95	80 - 120	2	20
Thallium	10.0	9.353		mg/Kg		94	80 - 120	1	20

Lab Sample ID: 860-89099-1 MS
Matrix: Solid
Analysis Batch: 206019

Client Sample ID: A5-1 (12102024)
Prep Type: Total/NA
Prep Batch: 205382

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Arsenic	1.36	J	17.4	13.79	N1	mg/Kg	⊛	71	75 - 125
Barium	51.7		17.4	48.00	N1	mg/Kg	⊛	-21	75 - 125
Beryllium	0.448	U	17.4	12.93	N1	mg/Kg	⊛	74	75 - 125

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QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 860-89099-1 MS
Matrix: Solid
Analysis Batch: 206019

Client Sample ID: A5-1 (12102024)
Prep Type: Total/NA
Prep Batch: 205382

Analyte	Sample	Sample	Spike	MS		Unit	D	%Rec	%Rec	
	Result	Qualifier		Result	Qualifier				Limits	Limits
Cadmium	0.472	U	17.4	12.94	N1	mg/Kg	☼	74	75 - 125	
Chromium	5.54		17.4	18.67		mg/Kg	☼	75	75 - 125	
Cobalt	0.609	J	17.4	13.40	N1	mg/Kg	☼	74	75 - 125	
Lead	7.59		17.4	18.63	N1	mg/Kg	☼	64	75 - 125	
Molybdenum	0.817	U	17.4	12.22	N1	mg/Kg	☼	70	75 - 125	
Selenium	1.34	J	17.4	13.34	N1	mg/Kg	☼	69	75 - 125	
Thallium	0.477	U	17.4	13.09		mg/Kg	☼	75	75 - 125	

Lab Sample ID: 860-89099-1 MSD
Matrix: Solid
Analysis Batch: 206019

Client Sample ID: A5-1 (12102024)
Prep Type: Total/NA
Prep Batch: 205382

Analyte	Sample	Sample	Spike	MSD		Unit	D	%Rec	%Rec		RPD	
	Result	Qualifier		Result	Qualifier				Limits	RPD	Limit	
Antimony	1.04	U	18.0	5.834	N1	mg/Kg	☼	32	75 - 125	5	20	
Arsenic	1.36	J	18.0	14.41	N1	mg/Kg	☼	72	75 - 125	4	20	
Barium	51.7		18.0	50.23	N1	mg/Kg	☼	-8	75 - 125	5	20	
Beryllium	0.448	U	18.0	13.37	N1	mg/Kg	☼	74	75 - 125	3	20	
Cadmium	0.472	U	18.0	13.45		mg/Kg	☼	75	75 - 125	4	20	
Chromium	5.54		18.0	19.62		mg/Kg	☼	78	75 - 125	5	20	
Cobalt	0.609	J	18.0	14.02		mg/Kg	☼	75	75 - 125	4	20	
Lead	7.59		18.0	19.49	N1	mg/Kg	☼	66	75 - 125	4	20	
Molybdenum	0.817	U	18.0	12.73	N1	mg/Kg	☼	71	75 - 125	4	20	
Selenium	1.34	J	18.0	13.88	N1	mg/Kg	☼	70	75 - 125	4	20	
Thallium	0.477	U	18.0	13.65		mg/Kg	☼	76	75 - 125	4	20	

Lab Sample ID: MB 860-205392/1-A
Matrix: Solid
Analysis Batch: 205729

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 205392

Analyte	MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
Antimony	0.117	U	0.400	0.117	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Arsenic	0.103	U	0.400	0.103	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Barium	0.137	U	0.400	0.137	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Beryllium	0.0506	U	0.200	0.0506	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Cadmium	0.0534	U	0.200	0.0534	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Chromium	0.0540	U	0.400	0.0540	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Cobalt	0.0603	U	0.200	0.0603	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Lead	0.0634	U	0.200	0.0634	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Molybdenum	0.0924	U	0.200	0.0924	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Selenium	0.0945	U	0.200	0.0945	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	
Thallium	0.0539	U	0.200	0.0539	mg/Kg		12/13/24 14:58	12/13/24 19:11	12/13/24 19:11	1	

Lab Sample ID: LCS 860-205392/2-A
Matrix: Solid
Analysis Batch: 205729

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205392

Analyte	Spike	LCS		Unit	D	%Rec	%Rec	
		Result	Qualifier				Limits	Limits
Antimony	10.0	9.354		mg/Kg		94	80 - 120	
Arsenic	10.0	9.975		mg/Kg		100	80 - 120	

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QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 860-205392/2-A
Matrix: Solid
Analysis Batch: 205729

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 205392

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Barium	10.0	9.804		mg/Kg		98	80 - 120
Beryllium	10.0	9.702		mg/Kg		97	80 - 120
Cadmium	10.0	9.862		mg/Kg		99	80 - 120
Chromium	10.0	9.969		mg/Kg		100	80 - 120
Cobalt	10.0	9.928		mg/Kg		99	80 - 120
Lead	10.0	9.876		mg/Kg		99	80 - 120
Molybdenum	10.0	9.800		mg/Kg		98	80 - 120
Selenium	10.0	9.741		mg/Kg		97	80 - 120
Thallium	10.0	10.05		mg/Kg		100	80 - 120

Lab Sample ID: LCSD 860-205392/3-A
Matrix: Solid
Analysis Batch: 205729

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 205392

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	10.0	9.598		mg/Kg		96	80 - 120	3	20
Arsenic	10.0	10.13		mg/Kg		101	80 - 120	1	20
Barium	10.0	9.666		mg/Kg		97	80 - 120	1	20
Beryllium	10.0	9.930		mg/Kg		99	80 - 120	2	20
Cadmium	10.0	10.04		mg/Kg		100	80 - 120	2	20
Chromium	10.0	10.02		mg/Kg		100	80 - 120	0	20
Cobalt	10.0	10.01		mg/Kg		100	80 - 120	1	20
Lead	10.0	9.873		mg/Kg		99	80 - 120	0	20
Molybdenum	10.0	9.909		mg/Kg		99	80 - 120	1	20
Selenium	10.0	10.12		mg/Kg		101	80 - 120	4	20
Thallium	10.0	9.980		mg/Kg		100	80 - 120	1	20

Lab Sample ID: 860-89092-A-1-E MS ^5
Matrix: Solid
Analysis Batch: 205729

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 205392

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	0.555	J	8.33	3.008	N1	mg/Kg		29	75 - 125
Arsenic	3.30		8.33	8.925	N1	mg/Kg		67	75 - 125
Barium	121		8.33	123.8	4	mg/Kg		33	75 - 125
Beryllium	0.364	J	8.33	6.615		mg/Kg		75	75 - 125
Cadmium	0.297	J	8.33	6.349	N1	mg/Kg		73	75 - 125
Chromium	7.94		8.33	13.97	N1	mg/Kg		72	75 - 125
Cobalt	2.26		8.33	8.355	N1	mg/Kg		73	75 - 125
Lead	9.73		8.33	16.48		mg/Kg		81	75 - 125
Molybdenum	1.22		8.33	6.668	N1	mg/Kg		65	75 - 125
Selenium	0.787	J	8.33	7.188		mg/Kg		77	75 - 125
Thallium	0.228	U	8.33	6.242		mg/Kg		75	75 - 125

QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 860-89092-A-1-F MSD ^5
Matrix: Solid
Analysis Batch: 205729

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 205392

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	Limit	
Antimony	0.555	J	8.77	3.075	N1	mg/Kg		29	75 - 125	2	20
Arsenic	3.30		8.77	9.381	N1	mg/Kg		69	75 - 125	5	20
Barium	121		8.77	128.0	4	mg/Kg		80	75 - 125	3	20
Beryllium	0.364	J	8.77	7.050		mg/Kg		76	75 - 125	6	20
Cadmium	0.297	J	8.77	6.666	N1	mg/Kg		73	75 - 125	5	20
Chromium	7.94		8.77	14.76		mg/Kg		78	75 - 125	5	20
Cobalt	2.26		8.77	8.854		mg/Kg		75	75 - 125	6	20
Lead	9.73		8.77	17.47		mg/Kg		88	75 - 125	6	20
Molybdenum	1.22		8.77	6.926	N1	mg/Kg		65	75 - 125	4	20
Selenium	0.787	J	8.77	7.232	N1	mg/Kg		73	75 - 125	1	20
Thallium	0.228	U	8.77	6.555		mg/Kg		75	75 - 125	5	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 860-206180/10-A
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206180

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	0.00895	U	0.0200	0.00895	mg/Kg		12/18/24 06:59	12/18/24 19:46	1

Lab Sample ID: LCS 860-206180/11-A
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206180

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec
							Result
Mercury	0.200	0.1985		mg/Kg		99	80 - 120

Lab Sample ID: LCSD 860-206180/12-A
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 206180

Analyte	Spike Added	LCSD	LCSD	Unit	D	%Rec	%Rec	RPD	RPD
							Result	Qualifier	Limits
Mercury	0.200	0.2002		mg/Kg		100	80 - 120	1	20

Lab Sample ID: 860-89345-C-3-C MS
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 206180

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec	%Rec
	Result	Qualifier	Added	Result	Qualifier				Limits
Mercury	0.00937	U	0.190	0.1899		mg/Kg	⚠	100	75 - 125

Lab Sample ID: 860-89345-C-3-D MSD
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 206180

Analyte	Sample	Sample	Spike	MSD	MSD	Unit	D	%Rec	%Rec	RPD	RPD
	Result	Qualifier	Added	Result	Qualifier				Limits	Limit	
Mercury	0.00937	U	0.198	0.1957		mg/Kg	⚠	99	75 - 125	3	20

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QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 7471B - Mercury (CVAA) (Continued)

Lab Sample ID: MB 860-206182/1-A
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 206182

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.00895	U	0.0200	0.00895	mg/Kg		12/18/24 07:02	12/18/24 20:37	1

Lab Sample ID: LCS 860-206182/2-A
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 206182

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.200	0.1934		mg/Kg		97	80 - 120

Lab Sample ID: LCSD 860-206182/3-A
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 206182

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.200	0.2012		mg/Kg		101	80 - 120	4	20

Lab Sample ID: 860-89099-1 MS
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: A5-1 (12102024)
Prep Type: Total/NA
Prep Batch: 206182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0173	U	0.394	0.3829		mg/Kg	⊛	97	75 - 125

Lab Sample ID: 860-89099-1 MSD
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: A5-1 (12102024)
Prep Type: Total/NA
Prep Batch: 206182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.0173	U	0.410	0.3926		mg/Kg	⊛	96	75 - 125	3	20

Lab Sample ID: 860-89099-35 MS
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: A2-1 (12112024)
Prep Type: Total/NA
Prep Batch: 206182

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.0105	U	0.254	0.2637		mg/Kg	⊛	104	75 - 125

Lab Sample ID: 860-89099-35 MSD
Matrix: Solid
Analysis Batch: 206452

Client Sample ID: A2-1 (12112024)
Prep Type: Total/NA
Prep Batch: 206182

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.0105	U	0.244	0.2568		mg/Kg	⊛	105	75 - 125	3	20

QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS)

Lab Sample ID: MB 160-694770/1-A
Matrix: Solid
Analysis Batch: 698039

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 694770

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.1096	U	0.166	0.166	1.00	0.391	pCi/g	12/20/24 11:10	01/13/25 10:02	1
Radium-228	-0.1035	U	0.126	0.127		0.336	pCi/g	12/20/24 11:10	01/13/25 10:02	1
Radium 226 and 228 (positive only)	0.0000	U	0.208	0.209		0.391	pCi/g	12/20/24 11:10	01/13/25 10:02	1

Lab Sample ID: LCS 160-694770/2-A
Matrix: Solid
Analysis Batch: 698040

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 694770

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Americium-241	95.8	104.8		11.4		1.08	pCi/g	109	75 - 125
Cesium-137	24.3	26.01		2.65		0.192	pCi/g	107	75 - 125
Cobalt-60	5.53	5.770		0.618		0.0818	pCi/g	104	75 - 125

Lab Sample ID: 860-89099-50 DU
Matrix: Solid
Analysis Batch: 698039

Client Sample ID: E3-1 (12112024)
Prep Type: Total/NA
Prep Batch: 694770

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	1.40		1.315		0.263	1.00	0.147	pCi/g	0.15	1
Radium-228	1.03		0.9714		0.213		0.128	pCi/g	0.12	1
Radium 226 and 228 (positive only)	2.43		2.286		0.338		0.147	pCi/g	0.20	

Lab Sample ID: MB 160-694774/1-A
Matrix: Solid
Analysis Batch: 697185

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 694774

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.07628	U	0.187	0.187	1.00	0.325	pCi/g	12/18/24 10:19	01/08/25 15:20	1
Radium-228	-0.1128	U	0.204	0.205		0.282	pCi/g	12/18/24 10:19	01/08/25 15:20	1
Radium 226 and 228 (positive only)	0.0000	U	0.277	0.277		0.325	pCi/g	12/18/24 10:19	01/08/25 15:20	1

Lab Sample ID: LCS 160-694774/2-A
Matrix: Solid
Analysis Batch: 697184

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 694774

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec Limits
				Uncert. (2σ+/-)					
Americium-241	95.8	96.08		10.5		1.16	pCi/g	100	75 - 125
Cesium-137	24.3	25.40		2.59		0.184	pCi/g	104	75 - 125
Cobalt-60	5.54	5.550		0.597		0.0685	pCi/g	100	75 - 125

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QC Sample Results

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method: 901.1 - Radium-226 & Other Gamma Emitters (GS) (Continued)

Lab Sample ID: 860-89099-1 DU
Matrix: Solid
Analysis Batch: 697188

Client Sample ID: A5-1 (12102024)
Prep Type: Total/NA
Prep Batch: 694774

Analyte	Sample Result	Sample Qual	DU		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
			Result	Qual						
Radium-226	0.767		0.6980		0.173	1.00	0.125	pCi/g	0.19	1
Radium-228	0.862		0.7969		0.256		0.376	pCi/g	0.13	1
Radium 226 and 228 (positive only)	1.63		1.495		0.309		0.376	pCi/g	0.22	

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QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

HPLC/IC

Leach Batch: 205593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	SPLP West	Solid	1312	
860-89099-4	B4-1 (12102024)	SPLP West	Solid	1312	
860-89099-7	B5-1 (12102024)	SPLP West	Solid	1312	
860-89099-10	C5-1 (12102024)	SPLP West	Solid	1312	
860-89099-13	C4-1 (12102024)	SPLP West	Solid	1312	
860-89099-16	D3-1 (12102024)	SPLP West	Solid	1312	
860-89099-19	C3-1 (12102024)	SPLP West	Solid	1312	
860-89099-22	B3-1 (12102024)	SPLP West	Solid	1312	
860-89099-25	A3-1 (12102024)	SPLP West	Solid	1312	
860-89099-32	A4-1 (12112024)	SPLP West	Solid	1312	
860-89099-35	A2-1 (12112024)	SPLP West	Solid	1312	
860-89099-38	B1-1 (12112024)	SPLP West	Solid	1312	
860-89099-41	C2-1 (12112024)	SPLP West	Solid	1312	
860-89099-44	D1-1 (12112024)	SPLP West	Solid	1312	
860-89099-47	E2-1 (12112024)	SPLP West	Solid	1312	
860-89099-50	E3-1 (12112024)	SPLP West	Solid	1312	
860-89099-53	E1-1 (12112024)	SPLP West	Solid	1312	
860-89099-56	D2-1 (12112024)	SPLP West	Solid	1312	
860-89099-62	B2-1 (12112024)	SPLP West	Solid	1312	
LB 860-205593/1-A	Method Blank	SPLP West	Solid	1312	
860-89099-1 MS	A5-1 (12102024)	SPLP West	Solid	1312	
860-89099-1 MSD	A5-1 (12102024)	SPLP West	Solid	1312	

Leach Batch: 205594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-65	A1-1 (12112024)	SPLP West	Solid	1312	
LB 860-205594/1-A	Method Blank	SPLP West	Solid	1312	
860-89099-65 MSD	A1-1 (12112024)	SPLP West	Solid	1312	
860-89099-C-65-D MS	860-89099-C-65-D MS	SPLP West	Solid	1312	

Analysis Batch: 205896

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-4	B4-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-7	B5-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-10	C5-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-13	C4-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-16	D3-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-19	C3-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-22	B3-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-25	A3-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-32	A4-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-35	A2-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-38	B1-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-41	C2-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-44	D1-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-47	E2-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-50	E3-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-53	E1-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-56	D2-1 (12112024)	SPLP West	Solid	300.0	205593
860-89099-62	B2-1 (12112024)	SPLP West	Solid	300.0	205593

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QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

HPLC/IC (Continued)

Analysis Batch: 205896 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-65	A1-1 (12112024)	SPLP West	Solid	300.0	205594
LB 860-205593/1-A	Method Blank	SPLP West	Solid	300.0	205593
LB 860-205594/1-A	Method Blank	SPLP West	Solid	300.0	205594
MB 860-205896/3	Method Blank	Total/NA	Solid	300.0	
MB 860-205896/62	Method Blank	Total/NA	Solid	300.0	
LCS 860-205896/4	Lab Control Sample	Total/NA	Solid	300.0	
LCS 860-205896/63	Lab Control Sample	Total/NA	Solid	300.0	
LCSD 860-205896/5	Lab Control Sample Dup	Total/NA	Solid	300.0	
LCSD 860-205896/64	Lab Control Sample Dup	Total/NA	Solid	300.0	
860-89099-1 MS	A5-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-1 MSD	A5-1 (12102024)	SPLP West	Solid	300.0	205593
860-89099-65 MSD	A1-1 (12112024)	SPLP West	Solid	300.0	205594
860-89099-C-65-D MS	860-89099-C-65-D MS	SPLP West	Solid	300.0	205594

Leach Batch: 206003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-59	C1-1 (12112024)	SPLP West	Solid	1312	
LB 860-206003/1-A	Method Blank	SPLP West	Solid	1312	
860-89099-59 MS	C1-1 (12112024)	SPLP West	Solid	1312	
860-89099-59 MSD	C1-1 (12112024)	SPLP West	Solid	1312	

Analysis Batch: 206238

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-59	C1-1 (12112024)	SPLP West	Solid	300.0	206003
LB 860-206003/1-A	Method Blank	SPLP West	Solid	300.0	206003
MB 860-206238/3	Method Blank	Total/NA	Solid	300.0	
LCS 860-206238/4	Lab Control Sample	Total/NA	Solid	300.0	
LCSD 860-206238/5	Lab Control Sample Dup	Total/NA	Solid	300.0	
LLCS 860-206238/6	Lab Control Sample	Total/NA	Solid	300.0	
860-89099-59 MS	C1-1 (12112024)	SPLP West	Solid	300.0	206003
860-89099-59 MSD	C1-1 (12112024)	SPLP West	Solid	300.0	206003

Metals

Prep Batch: 205382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	Total/NA	Solid	3051A	
860-89099-4	B4-1 (12102024)	Total/NA	Solid	3051A	
860-89099-7	B5-1 (12102024)	Total/NA	Solid	3051A	
860-89099-10	C5-1 (12102024)	Total/NA	Solid	3051A	
860-89099-13	C4-1 (12102024)	Total/NA	Solid	3051A	
860-89099-16	D3-1 (12102024)	Total/NA	Solid	3051A	
860-89099-19	C3-1 (12102024)	Total/NA	Solid	3051A	
860-89099-22	B3-1 (12102024)	Total/NA	Solid	3051A	
860-89099-25	A3-1 (12102024)	Total/NA	Solid	3051A	
860-89099-32	A4-1 (12112024)	Total/NA	Solid	3051A	
860-89099-35	A2-1 (12112024)	Total/NA	Solid	3051A	
860-89099-38	B1-1 (12112024)	Total/NA	Solid	3051A	
860-89099-41	C2-1 (12112024)	Total/NA	Solid	3051A	
860-89099-44	D1-1 (12112024)	Total/NA	Solid	3051A	
860-89099-47	E2-1 (12112024)	Total/NA	Solid	3051A	

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QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Metals (Continued)

Prep Batch: 205382 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-50	E3-1 (12112024)	Total/NA	Solid	3051A	
860-89099-53	E1-1 (12112024)	Total/NA	Solid	3051A	
860-89099-56	D2-1 (12112024)	Total/NA	Solid	3051A	
860-89099-59	C1-1 (12112024)	Total/NA	Solid	3051A	
860-89099-62	B2-1 (12112024)	Total/NA	Solid	3051A	
MB 860-205382/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 860-205382/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 860-205382/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	
860-89099-1 MS	A5-1 (12102024)	Total/NA	Solid	3051A	
860-89099-1 MSD	A5-1 (12102024)	Total/NA	Solid	3051A	

Prep Batch: 205392

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-65	A1-1 (12112024)	Total/NA	Solid	3051A	
MB 860-205392/1-A	Method Blank	Total/NA	Solid	3051A	
LCS 860-205392/2-A	Lab Control Sample	Total/NA	Solid	3051A	
LCSD 860-205392/3-A	Lab Control Sample Dup	Total/NA	Solid	3051A	
860-89092-A-1-E MS ^5	Matrix Spike	Total/NA	Solid	3051A	
860-89092-A-1-F MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	3051A	

Leach Batch: 205593

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	SPLP West	Solid	1312	
860-89099-4	B4-1 (12102024)	SPLP West	Solid	1312	
860-89099-7	B5-1 (12102024)	SPLP West	Solid	1312	
860-89099-10	C5-1 (12102024)	SPLP West	Solid	1312	
860-89099-13	C4-1 (12102024)	SPLP West	Solid	1312	
860-89099-16	D3-1 (12102024)	SPLP West	Solid	1312	
860-89099-19	C3-1 (12102024)	SPLP West	Solid	1312	
860-89099-22	B3-1 (12102024)	SPLP West	Solid	1312	
860-89099-25	A3-1 (12102024)	SPLP West	Solid	1312	
860-89099-32	A4-1 (12112024)	SPLP West	Solid	1312	
860-89099-35	A2-1 (12112024)	SPLP West	Solid	1312	
860-89099-38	B1-1 (12112024)	SPLP West	Solid	1312	
860-89099-41	C2-1 (12112024)	SPLP West	Solid	1312	
860-89099-44	D1-1 (12112024)	SPLP West	Solid	1312	
860-89099-47	E2-1 (12112024)	SPLP West	Solid	1312	
860-89099-50	E3-1 (12112024)	SPLP West	Solid	1312	
860-89099-53	E1-1 (12112024)	SPLP West	Solid	1312	
860-89099-56	D2-1 (12112024)	SPLP West	Solid	1312	
860-89099-62	B2-1 (12112024)	SPLP West	Solid	1312	
LB 860-205593/1-B	Method Blank	SPLP West	Solid	1312	
860-89099-1 MS	A5-1 (12102024)	SPLP West	Solid	1312	
860-89099-1 MSD	A5-1 (12102024)	SPLP West	Solid	1312	

Leach Batch: 205594

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-65	A1-1 (12112024)	SPLP West	Solid	1312	
LB 860-205594/1-B	Method Blank	SPLP West	Solid	1312	
880-51786-A-4-H MS	Matrix Spike	SPLP West	Solid	1312	
880-51786-A-4-I MSD	Matrix Spike Duplicate	SPLP West	Solid	1312	

Eurofins Houston

QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Metals

Analysis Batch: 205729

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-65	A1-1 (12112024)	Total/NA	Solid	6020B	205392
MB 860-205392/1-A	Method Blank	Total/NA	Solid	6020B	205392
LCS 860-205392/2-A	Lab Control Sample	Total/NA	Solid	6020B	205392
LCSD 860-205392/3-A	Lab Control Sample Dup	Total/NA	Solid	6020B	205392
860-89092-A-1-E MS ^5	Matrix Spike	Total/NA	Solid	6020B	205392
860-89092-A-1-F MSD ^5	Matrix Spike Duplicate	Total/NA	Solid	6020B	205392

Prep Batch: 205873

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-65	A1-1 (12112024)	SPLP West	Solid	3010A	205594
LB 860-205594/1-B	Method Blank	SPLP West	Solid	3010A	205594
MB 860-205873/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 860-205873/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-205873/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
880-51786-A-4-H MS	Matrix Spike	SPLP West	Solid	3010A	205594
880-51786-A-4-I MSD	Matrix Spike Duplicate	SPLP West	Solid	3010A	205594

Prep Batch: 205894

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-4	B4-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-7	B5-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-10	C5-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-13	C4-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-16	D3-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-19	C3-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-22	B3-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-25	A3-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-32	A4-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-35	A2-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-38	B1-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-41	C2-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-44	D1-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-47	E2-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-50	E3-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-53	E1-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-56	D2-1 (12112024)	SPLP West	Solid	3010A	205593
860-89099-62	B2-1 (12112024)	SPLP West	Solid	3010A	205593
LB 860-205593/1-B	Method Blank	SPLP West	Solid	3010A	205593
MB 860-205894/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 860-205894/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-205894/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
860-89099-1 MS	A5-1 (12102024)	SPLP West	Solid	3010A	205593
860-89099-1 MSD	A5-1 (12102024)	SPLP West	Solid	3010A	205593

Leach Batch: 206003

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-59	C1-1 (12112024)	SPLP West	Solid	1312	
LB 860-206003/1-B	Method Blank	SPLP West	Solid	1312	
860-89099-59 MS	C1-1 (12112024)	SPLP West	Solid	1312	
860-89099-59 MSD	C1-1 (12112024)	SPLP West	Solid	1312	

Eurofins Houston

QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Metals

Analysis Batch: 206019

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-4	B4-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-7	B5-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-10	C5-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-13	C4-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-16	D3-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-19	C3-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-22	B3-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-25	A3-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-32	A4-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-35	A2-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-38	B1-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-41	C2-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-44	D1-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-47	E2-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-50	E3-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-53	E1-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-56	D2-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-59	C1-1 (12112024)	Total/NA	Solid	6020B	205382
860-89099-62	B2-1 (12112024)	Total/NA	Solid	6020B	205382
MB 860-205382/1-A	Method Blank	Total/NA	Solid	6020B	205382
LCS 860-205382/2-A	Lab Control Sample	Total/NA	Solid	6020B	205382
LCSD 860-205382/3-A	Lab Control Sample Dup	Total/NA	Solid	6020B	205382
860-89099-1 MS	A5-1 (12102024)	Total/NA	Solid	6020B	205382
860-89099-1 MSD	A5-1 (12102024)	Total/NA	Solid	6020B	205382

Prep Batch: 206180

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-65	A1-1 (12112024)	Total/NA	Solid	7471B	
MB 860-206180/10-A	Method Blank	Total/NA	Solid	7471B	
LCS 860-206180/11-A	Lab Control Sample	Total/NA	Solid	7471B	
LCSD 860-206180/12-A	Lab Control Sample Dup	Total/NA	Solid	7471B	
860-89345-C-3-C MS	Matrix Spike	Total/NA	Solid	7471B	
860-89345-C-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471B	

Prep Batch: 206182

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	Total/NA	Solid	7471B	
860-89099-4	B4-1 (12102024)	Total/NA	Solid	7471B	
860-89099-7	B5-1 (12102024)	Total/NA	Solid	7471B	
860-89099-10	C5-1 (12102024)	Total/NA	Solid	7471B	
860-89099-13	C4-1 (12102024)	Total/NA	Solid	7471B	
860-89099-16	D3-1 (12102024)	Total/NA	Solid	7471B	
860-89099-19	C3-1 (12102024)	Total/NA	Solid	7471B	
860-89099-22	B3-1 (12102024)	Total/NA	Solid	7471B	
860-89099-25	A3-1 (12102024)	Total/NA	Solid	7471B	
860-89099-32	A4-1 (12112024)	Total/NA	Solid	7471B	
860-89099-35	A2-1 (12112024)	Total/NA	Solid	7471B	
860-89099-38	B1-1 (12112024)	Total/NA	Solid	7471B	
860-89099-41	C2-1 (12112024)	Total/NA	Solid	7471B	
860-89099-44	D1-1 (12112024)	Total/NA	Solid	7471B	

Eurofins Houston

QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Metals (Continued)

Prep Batch: 206182 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-47	E2-1 (12112024)	Total/NA	Solid	7471B	
860-89099-50	E3-1 (12112024)	Total/NA	Solid	7471B	
860-89099-53	E1-1 (12112024)	Total/NA	Solid	7471B	
860-89099-56	D2-1 (12112024)	Total/NA	Solid	7471B	
860-89099-59	C1-1 (12112024)	Total/NA	Solid	7471B	
860-89099-62	B2-1 (12112024)	Total/NA	Solid	7471B	
MB 860-206182/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 860-206182/2-A	Lab Control Sample	Total/NA	Solid	7471B	
LCSD 860-206182/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	
860-89099-1 MS	A5-1 (12102024)	Total/NA	Solid	7471B	
860-89099-1 MSD	A5-1 (12102024)	Total/NA	Solid	7471B	
860-89099-35 MS	A2-1 (12112024)	Total/NA	Solid	7471B	
860-89099-35 MSD	A2-1 (12112024)	Total/NA	Solid	7471B	

Analysis Batch: 206208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-65	A1-1 (12112024)	SPLP West	Solid	6010D	205873
LB 860-205594/1-B	Method Blank	SPLP West	Solid	6010D	205873
MB 860-205873/1-A	Method Blank	Total/NA	Solid	6010D	205873
LCS 860-205873/2-A	Lab Control Sample	Total/NA	Solid	6010D	205873
LCSD 860-205873/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	205873
880-51786-A-4-H MS	Matrix Spike	SPLP West	Solid	6010D	205873
880-51786-A-4-I MSD	Matrix Spike Duplicate	SPLP West	Solid	6010D	205873

Analysis Batch: 206223

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-4	B4-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-7	B5-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-10	C5-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-13	C4-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-16	D3-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-19	C3-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-22	B3-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-25	A3-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-32	A4-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-35	A2-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-38	B1-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-41	C2-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-44	D1-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-47	E2-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-50	E3-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-53	E1-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-56	D2-1 (12112024)	SPLP West	Solid	6010D	205894
860-89099-62	B2-1 (12112024)	SPLP West	Solid	6010D	205894
LB 860-205593/1-B	Method Blank	SPLP West	Solid	6010D	205894
MB 860-205894/1-A	Method Blank	Total/NA	Solid	6010D	205894
LCS 860-205894/2-A	Lab Control Sample	Total/NA	Solid	6010D	205894
LCSD 860-205894/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	205894
860-89099-1 MS	A5-1 (12102024)	SPLP West	Solid	6010D	205894
860-89099-1 MSD	A5-1 (12102024)	SPLP West	Solid	6010D	205894

Eurofins Houston

QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Metals

Prep Batch: 206225

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-59	C1-1 (12112024)	SPLP West	Solid	3010A	206003
LB 860-206003/1-B	Method Blank	SPLP West	Solid	3010A	206003
MB 860-206225/1-A	Method Blank	Total/NA	Solid	3010A	
LCS 860-206225/2-A	Lab Control Sample	Total/NA	Solid	3010A	
LCSD 860-206225/3-A	Lab Control Sample Dup	Total/NA	Solid	3010A	
860-89099-59 MS	C1-1 (12112024)	SPLP West	Solid	3010A	206003
860-89099-59 MSD	C1-1 (12112024)	SPLP West	Solid	3010A	206003

Analysis Batch: 206452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-4	B4-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-7	B5-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-10	C5-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-13	C4-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-16	D3-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-19	C3-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-22	B3-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-25	A3-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-32	A4-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-35	A2-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-38	B1-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-41	C2-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-44	D1-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-47	E2-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-50	E3-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-53	E1-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-56	D2-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-59	C1-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-62	B2-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-65	A1-1 (12112024)	Total/NA	Solid	7471B	206180
MB 860-206180/10-A	Method Blank	Total/NA	Solid	7471B	206180
MB 860-206182/1-A	Method Blank	Total/NA	Solid	7471B	206182
LCS 860-206180/11-A	Lab Control Sample	Total/NA	Solid	7471B	206180
LCS 860-206182/2-A	Lab Control Sample	Total/NA	Solid	7471B	206182
LCSD 860-206180/12-A	Lab Control Sample Dup	Total/NA	Solid	7471B	206180
LCSD 860-206182/3-A	Lab Control Sample Dup	Total/NA	Solid	7471B	206182
860-89099-1 MS	A5-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-1 MSD	A5-1 (12102024)	Total/NA	Solid	7471B	206182
860-89099-35 MS	A2-1 (12112024)	Total/NA	Solid	7471B	206182
860-89099-35 MSD	A2-1 (12112024)	Total/NA	Solid	7471B	206182
860-89345-C-3-C MS	Matrix Spike	Total/NA	Solid	7471B	206180
860-89345-C-3-D MSD	Matrix Spike Duplicate	Total/NA	Solid	7471B	206180

Analysis Batch: 206521

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-59	C1-1 (12112024)	SPLP West	Solid	6010D	206225
LB 860-206003/1-B	Method Blank	SPLP West	Solid	6010D	206225
MB 860-206225/1-A	Method Blank	Total/NA	Solid	6010D	206225
LCS 860-206225/2-A	Lab Control Sample	Total/NA	Solid	6010D	206225
LCSD 860-206225/3-A	Lab Control Sample Dup	Total/NA	Solid	6010D	206225

Eurofins Houston

QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Metals (Continued)

Analysis Batch: 206521 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-59 MS	C1-1 (12112024)	SPLP West	Solid	6010D	206225
860-89099-59 MSD	C1-1 (12112024)	SPLP West	Solid	6010D	206225

General Chemistry

Analysis Batch: 206051

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	Total/NA	Solid	Moisture	
860-89099-4	B4-1 (12102024)	Total/NA	Solid	Moisture	
MB 860-206051/1	Method Blank	Total/NA	Solid	Moisture	
860-88448-A-30 DU	Duplicate	Total/NA	Solid	Moisture	

Analysis Batch: 206055

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-10	C5-1 (12102024)	Total/NA	Solid	Moisture	
860-89099-13	C4-1 (12102024)	Total/NA	Solid	Moisture	
860-89099-16	D3-1 (12102024)	Total/NA	Solid	Moisture	
860-89099-19	C3-1 (12102024)	Total/NA	Solid	Moisture	
860-89099-22	B3-1 (12102024)	Total/NA	Solid	Moisture	
860-89099-25	A3-1 (12102024)	Total/NA	Solid	Moisture	
MB 860-206055/1	Method Blank	Total/NA	Solid	Moisture	
860-89099-10 DU	C5-1 (12102024)	Total/NA	Solid	Moisture	

Analysis Batch: 206121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-32	A4-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-35	A2-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-38	B1-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-41	C2-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-44	D1-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-47	E2-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-50	E3-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-53	E1-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-56	D2-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-59	C1-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-62	B2-1 (12112024)	Total/NA	Solid	Moisture	
860-89099-65	A1-1 (12112024)	Total/NA	Solid	Moisture	
MB 860-206121/1	Method Blank	Total/NA	Solid	Moisture	
860-89052-F-7 DU	Duplicate	Total/NA	Solid	Moisture	

Analysis Batch: 206335

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-7	B5-1 (12102024)	Total/NA	Solid	Moisture	
MB 860-206335/1	Method Blank	Total/NA	Solid	Moisture	
860-89136-A-1 DU	Duplicate	Total/NA	Solid	Moisture	

Rad

Leach Batch: 694033

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	Total/NA	Solid	Dry and Grind	
860-89099-4	B4-1 (12102024)	Total/NA	Solid	Dry and Grind	

Eurofins Houston

QC Association Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Rad (Continued)

Leach Batch: 694033 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-10	C5-1 (12102024)	Total/NA	Solid	Dry and Grind	
860-89099-19	C3-1 (12102024)	Total/NA	Solid	Dry and Grind	
860-89099-25	A3-1 (12102024)	Total/NA	Solid	Dry and Grind	
860-89099-53	E1-1 (12112024)	Total/NA	Solid	Dry and Grind	
860-89099-56	D2-1 (12112024)	Total/NA	Solid	Dry and Grind	
860-89099-59	C1-1 (12112024)	Total/NA	Solid	Dry and Grind	
860-89099-62	B2-1 (12112024)	Total/NA	Solid	Dry and Grind	
860-89099-65	A1-1 (12112024)	Total/NA	Solid	Dry and Grind	
860-89099-1 DU	A5-1 (12102024)	Total/NA	Solid	Dry and Grind	

Leach Batch: 694208

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-50	E3-1 (12112024)	Total/NA	Solid	Dry and Grind	
860-89099-50 DU	E3-1 (12112024)	Total/NA	Solid	Dry and Grind	

Prep Batch: 694770

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-50	E3-1 (12112024)	Total/NA	Solid	Fill_Geo-21	694208
860-89099-62	B2-1 (12112024)	Total/NA	Solid	Fill_Geo-21	694033
MB 160-694770/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	
LCS 160-694770/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	
860-89099-50 DU	E3-1 (12112024)	Total/NA	Solid	Fill_Geo-21	694208

Prep Batch: 694774

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
860-89099-1	A5-1 (12102024)	Total/NA	Solid	Fill_Geo-21	694033
860-89099-4	B4-1 (12102024)	Total/NA	Solid	Fill_Geo-21	694033
860-89099-10	C5-1 (12102024)	Total/NA	Solid	Fill_Geo-21	694033
860-89099-19	C3-1 (12102024)	Total/NA	Solid	Fill_Geo-21	694033
860-89099-25	A3-1 (12102024)	Total/NA	Solid	Fill_Geo-21	694033
860-89099-53	E1-1 (12112024)	Total/NA	Solid	Fill_Geo-21	694033
860-89099-56	D2-1 (12112024)	Total/NA	Solid	Fill_Geo-21	694033
860-89099-59	C1-1 (12112024)	Total/NA	Solid	Fill_Geo-21	694033
860-89099-65	A1-1 (12112024)	Total/NA	Solid	Fill_Geo-21	694033
MB 160-694774/1-A	Method Blank	Total/NA	Solid	Fill_Geo-21	
LCS 160-694774/2-A	Lab Control Sample	Total/NA	Solid	Fill_Geo-21	
860-89099-1 DU	A5-1 (12102024)	Total/NA	Solid	Fill_Geo-21	694033

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: A5-1 (12102024)

Lab Sample ID: 860-89099-1

Date Collected: 12/10/24 11:00

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.13 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 12:03	HN	EET HOU
SPLP West	Leach	1312			100.13 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:04	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206051	12/17/24 15:36	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			381.3000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697183	01/08/25 15:21	CAH	EET SL

Client Sample ID: A5-1 (12102024)

Lab Sample ID: 860-89099-1

Date Collected: 12/10/24 11:00

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 47.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:08	DP	EET HOU
Total/NA	Prep	7471B			.54 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 20:41	SHZ	EET HOU

Client Sample ID: B4-1 (12102024)

Lab Sample ID: 860-89099-4

Date Collected: 12/10/24 11:20

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.12 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 17:36	HN	EET HOU
SPLP West	Leach	1312			100.12 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:16	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206051	12/17/24 15:36	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			383.5000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697190	01/08/25 18:07	CAH	EET SL

Client Sample ID: B4-1 (12102024)

Lab Sample ID: 860-89099-4

Date Collected: 12/10/24 11:20

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 86.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:23	DP	EET HOU
Total/NA	Prep	7471B			.55 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 20:51	SHZ	EET HOU

Eurofins Houston

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: B5-1 (12102024)

Lab Sample ID: 860-89099-7

Date Collected: 12/10/24 12:00

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.00 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 13:03	HN	EET HOU
SPLP West	Leach	1312			100.00 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:18	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206335	12/17/24 18:11	JC	EET HOU

Client Sample ID: B5-1 (12102024)

Lab Sample ID: 860-89099-7

Date Collected: 12/10/24 12:00

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 82.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:25	DP	EET HOU
Total/NA	Prep	7471B			.53 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:03	SHZ	EET HOU

Client Sample ID: C5-1 (12102024)

Lab Sample ID: 860-89099-10

Date Collected: 12/10/24 12:25

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.02 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 12:48	HN	EET HOU
SPLP West	Leach	1312			100.02 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:20	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206055	12/17/24 15:36	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			341.7000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697186	01/08/25 18:07	CAH	EET SL

Client Sample ID: C5-1 (12102024)

Lab Sample ID: 860-89099-10

Date Collected: 12/10/24 12:25

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 94.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.57 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:27	DP	EET HOU
Total/NA	Prep	7471B			.51 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 20:52	SHZ	EET HOU

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C4-1 (12102024)

Lab Sample ID: 860-89099-13

Date Collected: 12/10/24 14:35

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.03 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 18:36	HN	EET HOU
SPLP West	Leach	1312			100.03 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:21	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206055	12/17/24 15:36	JC	EET HOU

Client Sample ID: C4-1 (12102024)

Lab Sample ID: 860-89099-13

Date Collected: 12/10/24 14:35

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:29	DP	EET HOU
Total/NA	Prep	7471B			.54 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 20:54	SHZ	EET HOU

Client Sample ID: D3-1 (12102024)

Lab Sample ID: 860-89099-16

Date Collected: 12/10/24 15:00

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.12 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 18:21	HN	EET HOU
SPLP West	Leach	1312			100.12 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:23	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206055	12/17/24 15:36	JC	EET HOU

Client Sample ID: D3-1 (12102024)

Lab Sample ID: 860-89099-16

Date Collected: 12/10/24 15:00

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 86.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:31	DP	EET HOU
Total/NA	Prep	7471B			.53 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 20:55	SHZ	EET HOU

Client Sample ID: C3-1 (12102024)

Lab Sample ID: 860-89099-19

Date Collected: 12/10/24 15:20

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.02 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 18:06	HN	EET HOU

Eurofins Houston

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C3-1 (12102024)

Lab Sample ID: 860-89099-19

Date Collected: 12/10/24 15:20

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.02 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:25	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206055	12/17/24 15:36	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			334.3000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697185	01/08/25 18:07	CAH	EET SL

Client Sample ID: C3-1 (12102024)

Lab Sample ID: 860-89099-19

Date Collected: 12/10/24 15:20

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 83.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.57 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:33	DP	EET HOU
Total/NA	Prep	7471B			.54 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 20:56	SHZ	EET HOU

Client Sample ID: B3-1 (12102024)

Lab Sample ID: 860-89099-22

Date Collected: 12/10/24 15:40

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.03 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 17:51	HN	EET HOU
SPLP West	Leach	1312			100.03 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:27	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206055	12/17/24 15:36	JC	EET HOU

Client Sample ID: B3-1 (12102024)

Lab Sample ID: 860-89099-22

Date Collected: 12/10/24 15:40

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.58 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:35	DP	EET HOU
Total/NA	Prep	7471B			.55 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 20:58	SHZ	EET HOU

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: A3-1 (12102024)

Lab Sample ID: 860-89099-25

Date Collected: 12/10/24 16:00

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.10 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 12:33	HN	EET HOU
SPLP West	Leach	1312			100.10 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:28	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206055	12/17/24 15:36	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			324.3000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697184	01/08/25 18:08	CAH	EET SL

Client Sample ID: A3-1 (12102024)

Lab Sample ID: 860-89099-25

Date Collected: 12/10/24 16:00

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 71.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:37	DP	EET HOU
Total/NA	Prep	7471B			.5 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:02	SHZ	EET HOU

Client Sample ID: A4-1 (12112024)

Lab Sample ID: 860-89099-32

Date Collected: 12/11/24 12:50

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.02 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 20:06	HN	EET HOU
SPLP West	Leach	1312			100.02 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:30	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU

Client Sample ID: A4-1 (12112024)

Lab Sample ID: 860-89099-32

Date Collected: 12/11/24 12:50

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 67.1

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:39	DP	EET HOU
Total/NA	Prep	7471B			.55 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:05	SHZ	EET HOU

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: A2-1 (12112024)

Lab Sample ID: 860-89099-35

Date Collected: 12/11/24 13:05

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.02 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 19:51	HN	EET HOU
SPLP West	Leach	1312			100.02 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:32	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU

Client Sample ID: A2-1 (12112024)

Lab Sample ID: 860-89099-35

Date Collected: 12/11/24 13:05

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 78.7

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:41	DP	EET HOU
Total/NA	Prep	7471B			.54 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:06	SHZ	EET HOU

Client Sample ID: B1-1 (12112024)

Lab Sample ID: 860-89099-38

Date Collected: 12/11/24 13:15

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.00 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 19:36	HN	EET HOU
SPLP West	Leach	1312			100.00 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:37	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU

Client Sample ID: B1-1 (12112024)

Lab Sample ID: 860-89099-38

Date Collected: 12/11/24 13:15

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 84.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.57 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:53	DP	EET HOU
Total/NA	Prep	7471B			.5 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:14	SHZ	EET HOU

Client Sample ID: C2-1 (12112024)

Lab Sample ID: 860-89099-41

Date Collected: 12/11/24 13:30

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.03 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 19:21	HN	EET HOU

Eurofins Houston

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C2-1 (12112024)

Lab Sample ID: 860-89099-41

Date Collected: 12/11/24 13:30

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.03 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:39	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU

Client Sample ID: C2-1 (12112024)

Lab Sample ID: 860-89099-41

Date Collected: 12/11/24 13:30

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 84.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:55	DP	EET HOU
Total/NA	Prep	7471B			.55 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:18	SHZ	EET HOU

Client Sample ID: D1-1 (12112024)

Lab Sample ID: 860-89099-44

Date Collected: 12/11/24 13:40

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.00 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 19:06	HN	EET HOU
SPLP West	Leach	1312			100.00 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:40	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU

Client Sample ID: D1-1 (12112024)

Lab Sample ID: 860-89099-44

Date Collected: 12/11/24 13:40

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 78.5

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:57	DP	EET HOU
Total/NA	Prep	7471B			.53 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:19	SHZ	EET HOU

Client Sample ID: E2-1 (12112024)

Lab Sample ID: 860-89099-47

Date Collected: 12/11/24 13:50

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.03 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 21:37	HN	EET HOU

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: E2-1 (12112024)

Lab Sample ID: 860-89099-47

Date Collected: 12/11/24 13:50

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.03 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:42	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU

Client Sample ID: E2-1 (12112024)

Lab Sample ID: 860-89099-47

Date Collected: 12/11/24 13:50

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 82.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.57 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 11:59	DP	EET HOU
Total/NA	Prep	7471B			.54 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:21	SHZ	EET HOU

Client Sample ID: E3-1 (12112024)

Lab Sample ID: 860-89099-50

Date Collected: 12/11/24 14:05

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.05 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 21:22	HN	EET HOU
SPLP West	Leach	1312			100.05 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:44	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694208	12/17/24 15:56	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			334.7000 g	1.0 g	694770	12/20/24 11:10	SAC	EET SL
Total/NA	Analysis	901.1		1			698041	01/13/25 10:00	CAH	EET SL

Client Sample ID: E3-1 (12112024)

Lab Sample ID: 860-89099-50

Date Collected: 12/11/24 14:05

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 86.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.58 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 12:01	DP	EET HOU
Total/NA	Prep	7471B			.52 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:22	SHZ	EET HOU

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: E1-1 (12112024)

Lab Sample ID: 860-89099-53

Date Collected: 12/11/24 14:25

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.00 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 20:52	HN	EET HOU
SPLP West	Leach	1312			100.00 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:45	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			303.2000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697183	01/08/25 18:08	CAH	EET SL

Client Sample ID: E1-1 (12112024)

Lab Sample ID: 860-89099-53

Date Collected: 12/11/24 14:25

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 70.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 12:03	DP	EET HOU
Total/NA	Prep	7471B			.55 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:24	SHZ	EET HOU

Client Sample ID: D2-1 (12112024)

Lab Sample ID: 860-89099-56

Date Collected: 12/11/24 14:40

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.15 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 21:07	HN	EET HOU
SPLP West	Leach	1312			100.15 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:47	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			363.9000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697188	01/08/25 18:43	CAH	EET SL

Client Sample ID: D2-1 (12112024)

Lab Sample ID: 860-89099-56

Date Collected: 12/11/24 14:40

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 68.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.57 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 12:05	DP	EET HOU
Total/NA	Prep	7471B			.54 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:25	SHZ	EET HOU

Eurofins Houston

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: C1-1 (12112024)

Lab Sample ID: 860-89099-59

Date Collected: 12/11/24 14:55

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.02 g	2000 mL	206003	12/17/24 13:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			206238	12/18/24 10:53	AK1	EET HOU
SPLP West	Leach	1312			100.02 g	2000 mL	206003	12/17/24 13:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	206225	12/18/24 09:00	MD	EET HOU
SPLP West	Analysis	6010D		1			206521	12/18/24 16:26	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			427.3000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697189	01/08/25 18:44	CAH	EET SL

Client Sample ID: C1-1 (12112024)

Lab Sample ID: 860-89099-59

Date Collected: 12/11/24 14:55

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 80.4

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.6 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 12:07	DP	EET HOU
Total/NA	Prep	7471B			.51 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:26	SHZ	EET HOU

Client Sample ID: B2-1 (12112024)

Lab Sample ID: 860-89099-62

Date Collected: 12/11/24 15:10

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.12 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 20:37	HN	EET HOU
SPLP West	Leach	1312			100.12 g	2000 mL	205593	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205894	12/17/24 09:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206223	12/17/24 17:49	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			337.2000 g	1.0 g	694770	12/20/24 11:10	SAC	EET SL
Total/NA	Analysis	901.1		1			698045	01/13/25 10:00	CAH	EET SL

Client Sample ID: B2-1 (12112024)

Lab Sample ID: 860-89099-62

Date Collected: 12/11/24 15:10

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 87.0

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	205382	12/13/24 14:55	PB	EET HOU
Total/NA	Analysis	6020B		5			206019	12/17/24 12:09	DP	EET HOU
Total/NA	Prep	7471B			.54 g	50 mL	206182	12/18/24 07:02	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 21:28	SHZ	EET HOU

Eurofins Houston

Lab Chronicle

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Client Sample ID: A1-1 (12112024)

Lab Sample ID: 860-89099-65

Date Collected: 12/11/24 15:35

Matrix: Solid

Date Received: 12/12/24 12:05

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
SPLP West	Leach	1312			100.10 g	2000 mL	205594	12/16/24 11:00	EMC	EET HOU
SPLP West	Analysis	300.0		1			205896	12/17/24 22:37	HN	EET HOU
SPLP West	Leach	1312			100.10 g	2000 mL	205594	12/16/24 11:00	EMC	EET HOU
SPLP West	Prep	3010A			50 mL	50 mL	205873	12/17/24 08:30	MD	EET HOU
SPLP West	Analysis	6010D		1			206208	12/17/24 18:08	JDM	EET HOU
Total/NA	Analysis	Moisture		1			206121	12/17/24 18:11	JC	EET HOU
Total/NA	Leach	Dry and Grind			1.0 g	1.0 g	694033	12/16/24 17:08	SRE	EET SL
Total/NA	Prep	Fill_Geo-21			344.1000 g	1.0 g	694774	12/18/24 10:19	SRE	EET SL
Total/NA	Analysis	901.1		1			697190	01/08/25 18:45	CAH	EET SL

Client Sample ID: A1-1 (12112024)

Lab Sample ID: 860-89099-65

Date Collected: 12/11/24 15:35

Matrix: Solid

Date Received: 12/12/24 12:05

Percent Solids: 70.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3051A			.59 g	50 mL	205392	12/13/24 14:58	PB	EET HOU
Total/NA	Analysis	6020B		5			205729	12/13/24 20:13	DP	EET HOU
Total/NA	Prep	7471B			.55 g	50 mL	206180	12/18/24 06:59	AGR	EET HOU
Total/NA	Analysis	7471B		1			206452	12/18/24 20:22	SHZ	EET HOU

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Laboratory: Eurofins Houston

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-00759	08-04-25
Florida	NELAP	E871002	06-30-25
Louisiana (All)	NELAP	03054	12-18-24
Oklahoma	NELAP	1306	12-31-24
Texas	NELAP	T104704215	01-27-25
Texas	TCEQ Water Supply	T104704215	12-28-25
USDA	US Federal Programs	525-23-79-79507	03-20-26

Laboratory: Eurofins St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-25
ANAB	Dept. of Defense ELAP	L2305	04-06-25
ANAB	Dept. of Energy	L2305.01	04-06-25
ANAB	ISO/IEC 17025	L2305	02-13-25
Arizona	State	AZ0813	12-08-25
California	Los Angeles County Sanitation Districts	10259	06-30-22 *
California	State	2886	06-30-25
Connecticut	State	PH-0241	03-31-25
Florida	NELAP	E87689	06-30-25
HI - RadChem Recognition	State	n/a	06-30-25
Illinois	NELAP	200023	11-30-25
Iowa	State	373	12-01-26
Kansas	NELAP	E-10236	10-31-25
Kentucky (DW)	State	KY90125	12-31-25
Kentucky (WW)	State	KY90125 (Permit KY0004049)	12-31-25
Louisiana	NELAP	04080	06-30-22 *
Louisiana (All)	NELAP	04080	06-30-25
Louisiana (DW)	State	LA011	12-31-25
Maryland	State	310	09-30-25
Massachusetts	State	M-MO054	06-30-25
MI - RadChem Recognition	State	9005	06-30-25
Missouri	State	780	06-30-25
Nevada	State	MO00054	07-31-25
New Jersey	NELAP	MO002	06-30-25
New Mexico	State	MO00054	06-30-25
New York	NELAP	11616	03-31-25
North Carolina (DW)	State	29700	07-31-25
North Dakota	State	R-207	06-30-24 *
Oklahoma	NELAP	9997	08-31-25
Oregon	NELAP	4157	09-01-25
Pennsylvania	NELAP	68-00540	02-28-25
South Carolina	State	85002001	06-30-25
Texas	NELAP	T104704193	07-31-25
US Fish & Wildlife	US Federal Programs	058448	07-31-25
USDA	US Federal Programs	P330-17-00028	05-18-26
Utah	NELAP	MO00054	07-31-25
Virginia	NELAP	460230	06-14-25

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins Houston

Accreditation/Certification Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Laboratory: Eurofins St. Louis (Continued)

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Washington	State	C592	08-30-25
West Virginia DEP	State	381	10-31-25

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Method Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Method	Method Description	Protocol	Laboratory
300.0	Anions, Ion Chromatography	EPA	EET HOU
6010D	Metals (ICP)	SW846	EET HOU
6020B	Metals (ICP/MS)	SW846	EET HOU
7471B	Mercury (CVAA)	SW846	EET HOU
Moisture	Percent Moisture	EPA	EET HOU
901.1	Radium-226 & Other Gamma Emitters (GS)	EPA	EET SL
1312	SPLP Extraction	SW846	EET HOU
3010A	Preparation, Total Metals	SW846	EET HOU
3051A	Preparation, Metals, Microwave Assisted	SW846	EET HOU
7471B	Preparation, Mercury	SW846	EET HOU
Dry and Grind	Preparation, Dry and Grind	None	EET SL
Fill_Geo-21	Fill Geometry, 21-Day In-Growth	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET HOU = Eurofins Houston, 4145 Greenbriar Dr, Stafford, TX 77477, TEL (281)240-4200

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Arcadis US Inc.
Project/Site: AEP Hallsville TX

Job ID: 860-89099-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
860-89099-1	A5-1 (12102024)	Solid	12/10/24 11:00	12/12/24 12:05
860-89099-4	B4-1 (12102024)	Solid	12/10/24 11:20	12/12/24 12:05
860-89099-7	B5-1 (12102024)	Solid	12/10/24 12:00	12/12/24 12:05
860-89099-10	C5-1 (12102024)	Solid	12/10/24 12:25	12/12/24 12:05
860-89099-13	C4-1 (12102024)	Solid	12/10/24 14:35	12/12/24 12:05
860-89099-16	D3-1 (12102024)	Solid	12/10/24 15:00	12/12/24 12:05
860-89099-19	C3-1 (12102024)	Solid	12/10/24 15:20	12/12/24 12:05
860-89099-22	B3-1 (12102024)	Solid	12/10/24 15:40	12/12/24 12:05
860-89099-25	A3-1 (12102024)	Solid	12/10/24 16:00	12/12/24 12:05
860-89099-32	A4-1 (12112024)	Solid	12/11/24 12:50	12/12/24 12:05
860-89099-35	A2-1 (12112024)	Solid	12/11/24 13:05	12/12/24 12:05
860-89099-38	B1-1 (12112024)	Solid	12/11/24 13:15	12/12/24 12:05
860-89099-41	C2-1 (12112024)	Solid	12/11/24 13:30	12/12/24 12:05
860-89099-44	D1-1 (12112024)	Solid	12/11/24 13:40	12/12/24 12:05
860-89099-47	E2-1 (12112024)	Solid	12/11/24 13:50	12/12/24 12:05
860-89099-50	E3-1 (12112024)	Solid	12/11/24 14:05	12/12/24 12:05
860-89099-53	E1-1 (12112024)	Solid	12/11/24 14:25	12/12/24 12:05
860-89099-56	D2-1 (12112024)	Solid	12/11/24 14:40	12/12/24 12:05
860-89099-59	C1-1 (12112024)	Solid	12/11/24 14:55	12/12/24 12:05
860-89099-62	B2-1 (12112024)	Solid	12/11/24 15:10	12/12/24 12:05
860-89099-65	A1-1 (12112024)	Solid	12/11/24 15:35	12/12/24 12:05

Chain of Custody Record

Client Information		Client Contact: Ms. Debi Farber	Phone:	Lab P#: Kuchchadkar Sachin G	E-Mail: Sachin.Kuchchadkar@et.eurofins.com	COC No: 860-24160-11705-1
Company: Arcadis US Inc.		Address: 98 San Jacinto Blvd, Suite 414	City: Austin	State: TX	Zip: 78701	Page: 2 of 7
Due Date Requested:		TAT Requested (days):	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No	Analysis Requested		Job #: 2017
Project Name: AEP Hallsville TX		Project #: 86007817	SSQW#: 86007817	901.1 Ra (MOD) Radium-226/228-Total (Eurofins St. Louis) - one 32 oz glass container		Preservation Codes: N None
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Mineral, Solid, Organic, Inorganic, Aqueous)	Field Filtered Sample (Yes or No)
CS-3 (12/10/2024)		12/10/24	1225	G	Solid	<input checked="" type="checkbox"/> Yes
C4-2 (12/10/2024)			1435		Solid	<input checked="" type="checkbox"/> No
C4-3 (12/10/2024)			1435		Solid	<input checked="" type="checkbox"/> No
D3-1 (12/10/2024)			1500		Solid	<input checked="" type="checkbox"/> No
D3-2 (12/10/2024)			1500		Solid	<input checked="" type="checkbox"/> No
D3-3 (12/10/2024)			1520		Solid	<input checked="" type="checkbox"/> No
C3-1 (12/10/2024)			1520		Solid	<input checked="" type="checkbox"/> No
C3-2 (12/10/2024)			1520		Solid	<input checked="" type="checkbox"/> No
C3-3 (12/10/2024)			1520		Solid	<input checked="" type="checkbox"/> No
B3-1 (12/10/2024)			1540	G	Solid	<input checked="" type="checkbox"/> No
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological				
Deliverable Requested: I, II, III, IV Other (Specify)		Special Instructions/QC Requirements:				
Empty Kit Relinquished by:		Date:	Time:			
Relinquished by: <i>PSA</i>		Date/Time: 12-12-24	Date/Time: 12-25			
Relinquished by:		Date/Time:	Date/Time:			
Relinquished by:		Date/Time:	Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.		Cooler Temperature(s) °C and Other Remarks:		

Chain of Custody Record

Client Information
 Client Contact: Ms. Debi Farber
 Company: Arcadis US Inc.
 Address: 98 San Jacinto Blvd, Suite 414
 City: Austin
 State Zip: TX, 78701
 Phone: 512-656-6287 (Tel)
 Email: debi.farber@arcadis.com
 Project #: 86007817
 Site: AEP Hallsville TX

Lab POC: Kuchhadkar Sachin G
E-Mail: Sachin.Kuchhadkar@et.eurofins.com
State of Origin:
Job #: 3097

COC No: 860-34160-11705.1
Page: 3 of 7

Analysis Requested

Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	901 1_Ra (MOD) Radium-226/228-Total (Eurofins St. Louis) - one 32 oz glass container
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1312/ 6010D SPLP Lithium
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	1312/ 300- SPLP Fluoride
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	6020B- Sb, As, Ba, be, cd, Cr Co, Pb, Mo, Se, Tl
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	7471B- Hg

Special Instructions/Note:
 Other

Sample Identification	Sample Date	Sample Time	Sample Type (G=grab, G=Tran, Analy)	Matrix (Weather, Specific, Operational)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of containers	Special Instructions/Note
B3-2 (12/10/2024)	12/10/24	1540	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
B3-3 (12/10/2024)	12/10/24	1540	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			No Radium analysis
A3-1 (12/10/2024)	12/10/24	1600	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
A3-2 (12/10/2024)	12/10/24	1600	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
A3-3 (12/10/2024)	12/10/24	1600	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
A5-2 (12/11/2024)	12/11/24	1215	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
A5-3 (12/11/2024)	12/11/24	1215	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
B4-2 (12/11/2024)	12/11/24	1230	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
B4-3 (12/11/2024)	12/11/24	1230	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
A4-1 (12/11/2024)	12/11/24	1250	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold
A4-2 (12/11/2024)	12/11/24	1250	G	Solid		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			Hold

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Deliverable Requested: I, II, III IV Other (specify)

Special Instructions/QC Requirements:
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months

Empty Kit Relinquished by: _____ **Date:** _____

Relinquished by: *RS* **Date/Time:** 12-12-24 1205 **Company:** _____

Relinquished by: _____ **Date/Time:** _____ **Company:** _____

Custody Seals Intact: Yes No **Custody Seal No.:** _____

Received by: _____ **Date/Time:** 12/24 1205 **Company:** _____

Received by: _____ **Date/Time:** _____ **Company:** _____

Cooler Temperature(s) °C and Other Remarks: _____

Chain of Custody Record

Client Information		Sampler	Lab P/N:	Carrier Tracking No(s):	COC No:	
Company: Arcadis US Inc.		Phone:	Kudchadkar Sachin G		860-34603-11870.1	
Address: 98 San Jacinto Blvd, Suite 414		City:	E-Mail: Sachin.Kudchadkar@et.eurofins.com	State of Origin:	Page: 404 4 of 7	
City: Austin		TAT Requested (days):	Job #:			
State, Zip: TX 78701		Compliance Project: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Preservation Codes:			
Phone: 512-658-6287(Tel)		PO #: 30209409	Analysis Requested			
Email: debi.farber@arcadis.com		W/O #:	Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/>			
Project Name: AEP Hallsville TX		Project #: 86007817	Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/>			
Site: SSOVW:		SSOVW:	901. Ra (Mn) Radium 226/228 Total			
			1312/60100 - SPLP Lithium			
			1312/300 SPLP Fluoride			
			6020B Pb, As, Ba, Be, Cd, Cr, Co, Se, Ni			
			7471B - Hg			
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Inwater, Solid, Composite)	Total Number of containers	Special Instructions/Note:
A4-3 (12/11/2024)	12-11-24	1250	G	Solid	X	Hold
A2-1 (12/11/2024)		1305		Solid	X	Hold
A2-2 (12/11/2024)		1305		Solid	X	Hold
A2-3 (12/11/2024)		1305		Solid	X	Hold
B1-1 (12/11/2024)		1315		Solid	X	Hold
B1-2 (12/11/2024)		1315		Solid	X	Hold
B1-3 (12/11/2024)		1315		Solid	X	Hold
C2-1 (12/11/2024)		1330		Solid	X	Hold
C2-2 (12/11/2024)		1330		Solid	X	Hold
C2-3 (12/11/2024)		1330		Solid	X	Hold
D1-1 (12/11/2024)	12-11-24	1340	G	Solid	X	Hold
Possible Hazard Identification <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological						
Deliverable Requested: I, II, III, IV Other (Specify)						
Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by: <i>RSA</i>		Date/Time: 12-12-24 1205		Received by: <i>[Signature]</i>		
Relinquished by:		Date/Time:	Company:	Received by:		
Relinquished by:		Date/Time:	Company:	Received by: <i>[Signature]</i>		
Custody Seals Intact: <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Eurofins Houston
 4145 Greenbriar Dr
 Stafford, TX 77477
 Phone: 281-240-4200

Chain of Custody Record

eurofins | Environment Testing

Client Information
 Client Contact: Ms. Debi Farber
 Company: Arcadis US Inc.
 Address: 98 San Jacinto Blvd, Suite 414
 City: Austin
 State, Zip: TX 78701
 Phone: 512-668-6287 (Tel)
 Email: debi.farber@arcadis.com
 Project Name: AEP Hallsville TX
 Site:
 Lab P#:
 Kutchackdar Sachin G
 Email: Sachin.Kutchackdar@et.eurofins.com
 State of Origin:
 COC No: 860-34603-11870.2
 Page:
 Page # of 7
 Job #:

Analysis Requested
 Due Date Requested:
 TAT Requested (days):
 Compliance Project: Yes No
 PO #: 30209409
 WQ #:
 Project #: 86007817
 SSCOW#:
 Field Filtered Sample (Yes or No)
 Perform MS/MSD (Yes or No)
 901.1 - Ra - (MOB) Radium 226/228 to 4-1
 1312/6010D - SPLP Lithium
 1312/1300 - SPLP Fluoride
 60208 - Sp,As,Ba,Be,Cd,Cr,Cu,Pb,Mo,Se,Tl
 7471B - Hg
 Preservation Codes:
 Other:
 Special Instructions/Note:
 Total Number of containers:
 Preservation Codes:
 Other:
 Special Instructions/Note:
 Total Number of containers:

Sample Identification	Sample Date	Sample Time	Sample Type (G=Comp, G=grab)	Matrix (Wet, Soil, Overstool, Britann, Ash)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Special Instructions/Note
D1-2 (12/11/2024)	12/11/24	1340	G	Solid					Hold
D1-3 (12/11/2024)	12/11/24	1340	G	Solid					Hold
E2-1 (12/11/2024)	12/11/24	1350	G	Solid					Hold
E2-2 (12/11/2024)	12/11/24	1350	G	Solid					Hold
E2-3 (12/11/2024)	12/11/24	1350	G	Solid					Hold
E3-1 (12/11/2024)	12/11/24	1405	G	Solid					Hold
E3-2 (12/11/2024)	12/11/24	1405	G	Solid					Hold
E3-3 (12/11/2024)	12/11/24	1405	G	Solid					Hold
E1-1 (12/11/2024)	12/11/24	1425	G	Solid					Hold
E1-2 (12/11/2024)	12/11/24	1425	G	Solid					Hold
E1-3 (12/11/2024)	12/11/24	1425	G	Solid					Hold

Possible Hazard Identification
 Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
 Deliverable Requested: I, II, III, IV Other (Specify):
 Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months
 Special Instructions/QC Requirements:

Empty Kit Relinquished by:
 Relinquished by:
 Date/Time: 12-12-24 12:05
 Company:
 Received by:
 Date/Time: 12-24-2024
 Company:
 Cooler Temperature(s) °C and Other Remarks:
 Custody Seals Intact: Yes No
 Custody Seal No.:

Eurofins Houston

4145 Greenbriar Dr
Stafford TX 77477
Phone: 281-240-4200

Chain of Custody Record



Environment Test Inc

Client Information		Sampler	Lab Pat:	Carrier/Tracking No(s):	COC No:				
Client Contact: Ms. Debi Farber	Phone:	Kudchadkar Sachin G	E-Mail: Sachin.Kudchadkar@eurofins.com	State of Origin:	860-34603-11870.3				
Company: Arcadis US Inc.	PWS/ICI:				Page: 6 of 7				
Address: 98 San Jacinto Blvd, Suite 414	Due Date Requested:				Job #:				
City: Austin	TAT Requested (days):				Preservation Codes:				
State Zip: TX 78701	Compliance Project: <input type="checkbox"/> Yes <input type="checkbox"/> No								
Phone: 512-658-6287(Tel)	PO #: 30209409								
Email: debi_farber@arcadis.com	WOC #:								
Project Name: AEP Hallsville TX	Project #: 86007817								
Site: SSOW#:	SSOW#:								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Number Sample, Container)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:	
D2-1 (12/11/2024)	12-11-24	1440	G	Solid	X	X	X	Hold	
D2-2 (12/11/2024)		1440		Solid	X	X	X	Hold	
D2-3 (12/11/2024)		1440			X	X	X	Hold	
C1-1 (12/11/2024)		1455			X	X	X	Hold	
C1-2 (12/11/2024)		1455			X	X	X	Hold	
C1-3 (12/11/2024)		1455			X	X	X	Hold	
B2-1 (12/11/2024)		1510			X	X	X	Hold	
B2-2 (12/11/2024)		1510			X	X	X	Hold	
B2-3 (12/11/2024)		1510			X	X	X	Hold	
A1-1 (12/11/2024)		1535			X	X	X	Hold	
A1-2 (12/11/2024)	12-11-24	1535	G	Solid	X	X	X	Hold	
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposed By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/OC Requirements:	
Deliverable Requested: I, II, III, IV Other (Specify)		Date:		Time:		Method of Shipment:			
Empty Kit Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:	Company:			
Relinquished by: <i>[Signature]</i>		12-12-24/1205	Company	Received by:	Date/Time:	Company:			
Relinquished by:		Date/Time:	Company:	Received by:	Date/Time:	Company:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:					



Environment Testing
Xenco

Houston, TX (281) 240-4200, Dallas, TX (214) 902-0300
Midland, TX (432) 704-5440, San Antonio, TX (210) 509-3334
El Paso, TX (915) 585-3443, Lubbock, TX (806) 794-1296
Hobbs, NM (575) 392-7550, Carlsbad, NM (575) 988-3199

Chain of Custody

Work Order No: _____

www.xenco.com Page 7 of 7

Project Manager: Debi Farber
 Company Name: Acetech US Inc
 Address: 98 San Jacinto Blvd Ste 414
 City State Zip: Austin TX 78701
 Phone: 512-658-6287
 Email: debi.farber@acetech.com

Bill to: (if different)
 Company Name:
 Address:
 City State Zip:

Program: UST/PST PRP Brownfields RRC Superfund
 State of Project:
 Reporting: Level II Level III PST/UST TRRP Level IV
 Deliverables: EDD ADAPT Other

Project Name: AEP Halkville TX Tim Around Routine Rush
 Project Number: 86007817
 Project Location:
 Sampler's Name:
 P.O.#:
 Due Date:
 TAT starts the day received by the lab, if received by 4:30pm
 Wet Ice: Yes No
 Parameters:
 Preservative Codes:
 None/NO DI Water H₂O
 Cool/Cool MeOH: Me
 HCL HCl HNO₃: HN
 H₂SO₄: H₂ NaOH: Na
 H₃PO₄: HP
 NaHSO₄: NABIS
 Na₂S₂O₅: NaSO₃
 Zn Acetate+NaOH: Zn
 NaOH+Ascorbic Acid: SAPC

Sample Identification	Matrix	Date Sampled	Time Sampled	Depth	Gab/Comp	# of Cont	Parameters	Sample Comments
A1-3 (12112024)	S	12/11/24	1535	G	G	1	901.1 - Ra - (mod) Radium 226/228 Total	
						1	1312/6010 - SPLP Lithium	
						1	1312/300 - SPLP Fluoride	
						1	60208 - Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Mo, Ni, Se, Ag, Ti, U	
						1	74713 - Hg	

Total 2007/6010 2008/6020: 8RCRA 13PPM Texas 11 Al Sb As Ba Be B Cd Ca Cr Co Cu Fe Pb Mg Mn Mo Ni K Se Ag SiO₂ Na Sr Ti Sn U V Zn
 Circle Method(s) and Metal(s) to be analyzed: TCLP/SPLP6010 8RCRA Sb As Ba Be Cd Cr Co Cu Pb Mn Mo Ni Se Ag Ti U Hg: 1631 / 245 1 / 7470 / 7471

Notice: Signature of this document and relinquishment of samples constitutes a valid purchase order from client company to Eurofins Xenco, its affiliates and subcontractors. It assigns standard terms and conditions of service. Eurofins Xenco will be liable only for the cost of samples and shall not assume any responsibility for any losses or expenses incurred by the client if such losses are due to circumstances beyond the control of Eurofins Xenco. A minimum charge of \$85.00 will be applied to each project and a charge of \$2 for each sample submitted to Eurofins Xenco, but not analyzed. These terms will be enforced unless previously negotiated.

Relinquished by: (Signature)	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Received by: (Signature)	Date/Time
<u>[Signature]</u>	<u>[Signature]</u>	12/12/24/1205			

Chain of Custody Record



Client Information (Sub Contract Lab)		Sampler	Lab PM	Carrier Tracking No(s)	COC No					
Client Contact: N/A		N/A	Kudchadkar, Sachin G	N/A	860-182866.1					
Shipping/Receiving: N/A		Phone: N/A	E-Mail: Sachin.Kudchadkar@et.eurofins.com	State of Origin: Texas	Page: Page 1 of 2					
Company: TestAmerica Laboratories, Inc.		Accreditations Required (See note): NELAP - Texas		Job #: 860-89099-1						
Address: 13715 Rider Trail North, City: Earth City, State, Zip: MO, 63045		Due Date Requested: 12/26/2024		Preservation Codes:						
Phone: 314-298-8566(Tel) 314-298-8757(Fax)		TAT Requested (days): N/A		Analysis Requested:						
Email: N/A		PO #: N/A		Field Filtered Sample (Yes or No)						
Project Name: AEP Hallsville TX		WO #: N/A		Perform MS/MSD (Yes or No)						
Site: N/A		Project #: 86007817		901.1, Rad/Ry, Gnd (MOD) Radium-226/228						
		SSOW#: N/A		Rz26, Z28GF, PE						
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (H=Water, S=Solid, O=Overstabil, I=Inert, A=Air)	Preservation Code	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Analysis Requested	Total Number of Containers	Special Instructions/Note:
A5-1 (12102024) (860-89099-1)	12/10/24	11:00 Central	G	Solid		X	X		1	
B4-1 (12102024) (860-89099-4)	12/10/24	11:20 Central	G	Solid		X	X		1	
C5-1 (12102024) (860-89099-10)	12/10/24	12:25 Central	G	Solid		X	X		1	
C3-1 (12102024) (860-89099-19)	12/10/24	15:20 Central	G	Solid		X	X		1	
A3-1 (12102024) (860-89099-25)	12/10/24	16:00 Central	G	Solid		X	X		1	
E3-1 (12112024) (860-89099-50)	12/11/24	14:05 Central	G	Solid		X	X		1	
E1-1 (12112024) (860-89099-53)	12/11/24	14:25 Central	G	Solid		X	X		1	
D2-1 (12112024) (860-89099-56)	12/11/24	14:40 Central	G	Solid		X	X		1	
C1-1 (12112024) (860-89099-59)	12/11/24	14:55 Central	G	Solid		X	X		1	

Note: Since laboratory accreditations are subject to change, Eurofins Environment Testing South Central, LLC places the ownership of method, analyze & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins Environment Testing South Central, LLC laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins Environment Testing South Central, LLC attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins Environment Testing South Central, LLC.

Possible Hazard Identification
Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) Primary Deliverable Rank: 2

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For Months

Empty Kit Relinquished by: *[Signature]* Date: 12/31/24 7:10
 Relinquished by: *[Signature]* Date/Time: Cheyenne Forrest
 Relinquished by: *[Signature]* Date/Time: Cheyenne Forrest
 Relinquished by: *[Signature]* Date/Time: Cheyenne Forrest

Custody Seals Intact: Yes No No
 Custody Seal No.:
 Cooler Temperature(s) °C and Other Remarks:



Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 860-89099-1

Login Number: 89099

List Source: Eurofins Houston

List Number: 1

Creator: Torrez, Lisandra

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.

Login Sample Receipt Checklist

Client: Arcadis US Inc.

Job Number: 860-89099-1

Login Number: 89099
List Number: 2
Creator: Forrest, Cheyenne L

List Source: Eurofins St. Louis
List Creation: 12/16/24 01:11 PM

Question	Answer	Comment
Radioactivity wasn't checked or is <=/ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	N/A	
There are no discrepancies between the containers received and the COC.	False	Coc states 14 containers but we received 38.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Container B-62 was received w/ a cracked lid and Container A-50 was fully broken
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	False	

This receipt checklist is generated for all samples received in this Login. It may not be applicable to all Jobs associated with this Login.



ATTACHMENT E
Laboratory Analytical Reports –
BASP Pond Water Samples



Dolan Chemical Laboratory
4001 Bixby Road
Groveport, OH 43125
T: 614-836-4221, Audinet 210-4221
F: 614-836-4168, Audinet 210-4168
<http://aepenv/labs>

Water Analysis

Location: Welsh PS

Report Date: 9/15/2020

ASD BASP

Sample Number: 202592-001

Date Collected: 08/26/2020 08:40

Date Received: 8/27/2020

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Antimony, Sb	0.21	ug/L		0.1	0.02	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Arsenic, As	4.17	ug/L		0.1	0.03	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Barium, Ba	131	ug/L		0.2	0.05	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
•The RPD between the MS/MSD exceeds 20%.								
Beryllium, Be	< 0.02	ug/L	U	0.1	0.02	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Cadmium, Cd	< 0.01	ug/L	U	0.05	0.01	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Chromium, Cr	0.384	ug/L		0.2	0.04	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Cobalt, Co	0.076	ug/L		0.05	0.02	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Lead, Pb	0.460	ug/L		0.2	0.05	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Mercury, Hg	0.004	ug/L	J	0.005	0.002	JAB	09/04/2020	EPA 245.7-2005, Rev. 2.0
Molybdenum, Mo	81.1	ug/L		2	0.4	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Selenium, Se	8.3	ug/L		0.2	0.03	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Thallium, Tl	< 0.1	ug/L	U	0.5	0.1	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Boron, B	4.58	mg/L		0.05	0.02	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Calcium, Ca	60.4	mg/L		0.3	0.1	DAM	09/01/2020 16:34	EPA 200.7-1994, Rev. 4.4
Lithium, Li	0.00387	mg/L		0.0002	0.00005	JDB	09/02/2020 21:13	EPA 200.8-1994, Rev. 5.4
Magnesium, Mg	0.08	mg/L	J	0.1	0.02	DAM	09/01/2020 16:34	EPA 200.7-1994, Rev. 4.4
Potassium, K	27.4	mg/L		1	0.2	DAM	09/01/2020 16:34	EPA 200.7-1994, Rev. 4.4
Sodium, Na	150	mg/L		0.5	0.1	DAM	09/01/2020 16:34	EPA 200.7-1994, Rev. 4.4
Strontium, Sr	2.74	mg/L		0.01	0.002	DAM	09/01/2020 16:34	EPA 200.7-1994, Rev. 4.4
Alkalinity, as CaCO3	176	mg/L		20	5	MGK	09/01/2020 10:08	SM 2320B-2011
Bromide, Br	0.08	mg/L	J	0.2	0.04	CRJ	08/28/2020 10:51	EPA 300.1-1997, Rev. 1.0
Chloride, Cl	16.3	mg/L		0.04	0.01	CRJ	08/28/2020 10:51	EPA 300.1-1997, Rev. 1.0
Fluoride, F	0.34	mg/L		0.06	0.01	CRJ	08/28/2020 10:51	EPA 300.1-1997, Rev. 1.0
Residue, Filterable, TDS	790	mg/L		100	40	HRF	08/31/2020	SM 2540C-2011
Sulfate, SO4	343	mg/L		2	0.3	CRJ	08/28/2020 11:26	EPA 300.1-1997, Rev. 1.0

U: Analyte was analyzed and not detected at or above adjusted Method Detection Limit

J: Analyte was positively identified, though the quantitation was below Reporting Limit.

Radiochemistry*	Result	Units	UNC* (+ / -)	MDA*	Analysis By	Analysis Date/Time	Method
Radium-228	0.403	pCi/L	0.18	0.60	ttp	9/14/2020	SW-846 9320-2014, Rev. 1.0
Radium-226	0.0979	pCi/L	0.060	0.17	ttp	9/14/2020	SW-846 9315-1986, Rev. 0

**The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.*

ASD BASP dissolved

Sample Number: 202592-001A

Date Collected: 08/26/2020 08:40

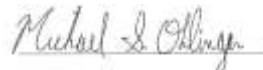
Date Received: 8/27/2020

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Antimony, Sb	0.19	ug/L		0.1	0.02	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Arsenic, As	4.07	ug/L		0.1	0.03	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Barium, Ba	122	ug/L		0.2	0.05	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Beryllium, Be	< 0.02	ug/L	U	0.1	0.02	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Cadmium, Cd	< 0.01	ug/L	U	0.05	0.01	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Chromium, Cr	0.324	ug/L		0.2	0.04	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Cobalt, Co	0.04	ug/L	J	0.05	0.02	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Lead, Pb	0.1	ug/L	J	0.2	0.05	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Molybdenum, Mo	77.7	ug/L		2	0.4	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Selenium, Se	8.3	ug/L		0.2	0.03	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Thallium, Tl	< 0.1	ug/L	U	0.5	0.1	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Boron, B	4.40	mg/L		0.05	0.02	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Calcium, Ca	60.2	mg/L		0.3	0.1	DAM	09/01/2020 17:13	EPA 200.7-1994, Rev. 4.4
Lithium, Li	0.00394	mg/L		0.0002	0.00005	JDB	09/02/2020 23:00	EPA 200.8-1994, Rev. 5.4
Magnesium, Mg	0.02	mg/L	J	0.1	0.02	DAM	09/01/2020 17:13	EPA 200.7-1994, Rev. 4.4
Potassium, K	27.5	mg/L		1	0.2	DAM	09/01/2020 17:13	EPA 200.7-1994, Rev. 4.4
Sodium, Na	149	mg/L		0.5	0.1	DAM	09/01/2020 17:13	EPA 200.7-1994, Rev. 4.4
Strontium, Sr	2.73	mg/L		0.01	0.002	DAM	09/01/2020 17:13	EPA 200.7-1994, Rev. 4.4
Alkalinity, as CaCO3	153	mg/L		20	5	MGK	09/01/2020 10:08	SM 2320B-2011
Bromide, Br	0.08	mg/L	J	0.2	0.04	CRJ	08/28/2020 15:14	EPA 300.1-1997, Rev. 1.0
Chloride, Cl	16.3	mg/L		0.04	0.01	CRJ	08/28/2020 15:14	EPA 300.1-1997, Rev. 1.0
Fluoride, F	0.29	mg/L		0.06	0.01	CRJ	08/28/2020 15:14	EPA 300.1-1997, Rev. 1.0
Residue, Filterable, TDS	771	mg/L		50	20	HRF	08/31/2020	SM 2540C-2011
Sulfate, SO4	339	mg/L		2	0.3	CRJ	08/28/2020 13:58	EPA 300.1-1997, Rev. 1.0

U: Analyte was analyzed and not detected at or above adjusted Method Detection Limit

J: Analyte was positively identified, though the quantitation was below Reporting Limit.

**The Required Detection Limit (RDL) is equivalent to the RL and for Radium-226 and Radium-228, the RDL is calculated to be 1.0 pCi/L. The Minimal Detectable Activity (MDA) listed with these results is sample specific and empirical. The combined standard uncertainty (UNC) is a counting uncertainty representing "one-sigma" which has the same units of measurement as the result.*



Michael Ohlinger, Chemist

Email msohlinger@aep.com Tel.

Fax 614-836-4168

Audinet 8-210-

THIS TEST REPORT RELATES ONLY TO THE ITEMS TESTED AND SHALL NOT BE REPRODUCED EXCEPT IN FULL WITHOUT WRITTEN APPROVAL OF THE LABORATORY. ALL TEST RESULTS MEET ALL OF THE REQUIREMENTS OF THE ACCREDITING AUTHORITY, UNLESS OTHERWISE NOTED.

AEP WATER & WASTE SAMPLE RECEIPT FORM

<u>Package Type</u>				<u>Delivery Type</u>			
Cooler	Box	Bag	Envelope	PONY	UPS	FedEX	USPS
				Other _____			
Plant/Customer <u>Welsh</u>				Number of Plastic Containers: <u>7</u>			
Opened By <u>SM</u>				Number of Glass Containers: _____			
Date/Time <u>8-26-20 12:55</u>				Number of Mercury Containers: <u>1</u>			
Were all temperatures within 0-6°C? <input checked="" type="radio"/> Y / <input type="radio"/> N or N/A Initial: <u>SM</u> on ice / no ice							
(IR Gun Ser# #2 (192635988), Expir. 11/12/2021) - If No, specify each deviation: _____							
Was container in good condition? <input checked="" type="radio"/> Y / <input type="radio"/> N Comments _____							
Was Chain of Custody received? <input checked="" type="radio"/> Y / <input type="radio"/> N Comments _____							
Requested turnaround: <u>2 weeks</u> If RUSH, who was notified? _____							
pH (15 min)	Cr ⁺⁶ (pres) (24 hr)	NO ₂ or NO ₃ (48 hr)	ortho-PO ₄ (48 hr)	Hg-diss (pres) (48 hr)			

Was COC filled out properly? Y / N Comments _____

Were samples labeled properly? Y / N Comments _____

Were correct containers used? Y / N Comments _____

Was pH checked & Color Coding done? Y / N or N/A Initial & Date: SM 8-26-20

- Was Add'l Preservative needed? Y / N If Yes: By whom & when: Hg Lab (See Prep Book)

Is sample filtration requested? Y / N Comments _____ (See Prep Book)

Was the customer contacted? If Yes: Person Contacted: _____

Lab ID# 202592 Initial & Date & Time : _____

Logged by SM Comments: Solid sample coc? copied this to give to DAM for waste. GAB

Reviewed by GAB

REMINDER: Document the pertinent sample integrity information and deviations in sample receipt (as noted above) in the "Notes" field in the LIMS to be included on the report to the customer.

ID #C.44

Sample Number: 162422-016

Date Collected: 06/21/2016 10:17

Date Received: 6/22/2016

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Antimony, Sb	0.62	ug/L		0.05	0.01	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Arsenic, As	3.50	ug/L		0.05	0.01	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
0.5-1.0 micron	328000	Cts/100		20	20	TEA	06/30/2016	In-House
1.0-2.0 micron	186400	Cts/100		20	20	TEA	06/30/2016	In-House
2.0-5.0 micron	85000	Cts/100		20	20	TEA	06/30/2016	In-House
5.0-10 micron	10960	Cts/100		20	20	TEA	06/30/2016	In-House
10-15 micron	2200	Cts/100		20	20	TEA	06/30/2016	In-House
Barium, Ba	65.8	ug/L		0.1	0.03	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
15-20 micron	960	Cts/100		20	20	TEA	06/30/2016	In-House
20-25 micron	360	Cts/100		20	20	TEA	06/30/2016	In-House
>25,<250 micron	520	Cts/100		20	20	TEA	06/30/2016	In-House
Total Counts	614400	Cts/100		20	20	TEA	06/30/2016	In-House
Beryllium, Be	< 0.005	ug/L	U	0.02	0.005	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Cadmium, Cd	0.006	ug/L	J	0.02	0.004	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Chromium, Cr	0.5	ug/L		0.05	0.007	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Cobalt, Co	0.108	ug/L		0.01	0.002	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Copper, Cu	4.31	ug/L		0.05	0.01	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Lead, Pb	0.01	ug/L	J	0.02	0.004	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Mercury, Hg	4.1	ng/L		0.5	0.2	SH	06/29/2016	EPA 1631E-2002
Molybdenum, Mo	134	ug/L		0.1	0.02	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Nickel, Ni	4.86	ug/L		0.1	0.03	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Selenium, Se	3.9	ug/L		0.1	0.03	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Silver, Ag	0.006	ug/L	J	0.02	0.004	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Thallium, Tl	0.04	ug/L	J	0.05	0.01	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Tin, Sn	< 5	ug/L	U	20	5	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Titanium, Ti	< 0.5	ug/L	U	2	0.5	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Zinc, Zn	0.8	ug/L	J	2	0.4	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Silica, SiO2 (Dissolved)	6.30	mg/L		0.02	0.004	DAM	06/29/2016 12:02	EPA 200.7-1994, Rev. 4.4
Aluminum, Al	1670	ug/L		2	0.5	DPC	07/06/2016 12:17	EPA 200.8-1994, Rev. 5.4
Boron, B	4.39	mg/L		0.02	0.008	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Calcium, Ca	24.7	mg/L		0.1	0.03	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Iron, Fe	0.004	mg/L	J	0.01	0.002	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Magnesium, Mg	1.19	mg/L		0.05	0.01	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Manganese, Mn	< 0.0005	mg/L	U	0.002	0.0005	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Potassium, K	29.2	mg/L		0.2	0.05	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Sodium, Na	214	mg/L		0.2	0.06	DAM	07/12/2016 13:34	EPA 200.7-1994, Rev. 4.4
Strontium, Sr	0.995	mg/L		0.005	0.001	DAM	07/12/2016 13:34	SW-846 6010C-2007, Rev. 3.0
Ammonia, NH3, as N	< 0.2	mg/L	U	1	0.2	KLG	07/12/2016	EPA 350.1-1993, Rev. 2.0
Alkalinity, as CaCO3	104	mg/L		2	0.4	GES	06/27/2016	SM 2320B-1997
Carbonate Alkalinity	6	mg/L		5	1	GES	06/27/2016	SM 4500-CO2D-1997
Bromide, Br	0.224	mg/L		0.2	0.05	MK	06/28/2016	EPA 300.1-1997, Rev. 1.0
Chloride, Cl	28.7	mg/L		0.2	0.05	MK	06/28/2016	EPA 300.1-1997, Rev. 1.0
Fluoride, F	0.18	mg/L		0.2	0.05	MK	06/28/2016	EPA 300.1-1997, Rev. 1.0
Hardness, Total, as CaCO3	66.7	mg/L		0.1	0.02	DAM	07/14/2016	SM 2340B-1997
Nitrate-Nitrite, NO3-NO2, as N	2.74	mg/L		1	0.2	KLG	07/11/2016	SM 4500NO3 H-2000
Residue, Filterable, TDS	812	mg/L		40	10	SDB	06/25/2016	SM 2540C-1997
Residue, Non-Filterable, TSS	< 0.2	mg/L	U	1	0.2	SDB	06/25/2016	SM 2540D-1997

Sample was analyzed at or near the max volume of 1000mL but the residue weight is less than 0.0025g. Sdb62716

ID# C.44

Sample Number: 162347-008

Date Collected: 06/15/2016 09:40

Date Received: 6/16/2016

Parameter	Result	Units	Data Qual	RL	MDL	Analysis By	Analysis Date/Time	Method
Antimony, Sb	0.72	ug/L		0.05	0.01	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Arsenic, As	2.39	ug/L		0.05	0.01	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
0.5-1.0 micron	380000	Cts/100		20	20	TEA	06/30/2016	In-House
1.0-2.0 micron	220000	Cts/100		20	20	TEA	06/30/2016	In-House
2.0-5.0 micron	130000	Cts/100		20	20	TEA	06/30/2016	In-House
5.0-10 micron	19640	Cts/100		20	20	TEA	06/30/2016	In-House
10-15 micron	2640	Cts/100		20	20	TEA	06/30/2016	In-House
Barium, Ba	89.5	ug/L		0.1	0.03	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
15-20 micron	940	Cts/100		20	20	TEA	06/30/2016	In-House
20-25 micron	360	Cts/100		20	20	TEA	06/30/2016	In-House
>25,<250 micron	340	Cts/100		20	20	TEA	06/30/2016	In-House
Total Counts	753920	Cts/100		20	20	TEA	06/30/2016	In-House
Beryllium, Be	< 0.005	ug/L	U	0.02	0.005	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Cadmium, Cd	0.18	ug/L		0.02	0.004	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Chromium, Cr	0.1	ug/L		0.05	0.007	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Cobalt, Co	0.277	ug/L		0.01	0.002	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Copper, Cu	0.46	ug/L		0.05	0.01	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Lead, Pb	0.026	ug/L		0.02	0.004	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Molybdenum, Mo	33.0	ug/L		0.1	0.02	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Nickel, Ni	0.89	ug/L		0.1	0.03	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Selenium, Se	9.9	ug/L		0.1	0.03	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Silver, Ag	0.126	ug/L		0.02	0.004	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Thallium, Tl	1.31	ug/L		0.05	0.01	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Tin, Sn	< 1	ug/L	U	5	1	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Titanium, Ti	< 0.1	ug/L	U	0.5	0.1	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Zinc, Zn	< 0.4	ug/L	U	2	0.4	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Silica, SiO2 (Dissolved)	15.7	mg/L		0.02	0.004	DAM	06/29/2016 10:44	EPA 200.7-1994, Rev. 4.4
Aluminum, Al	4850	ug/L		2	0.5	DPC	06/28/2016 17:11	EPA 200.8-1994, Rev. 5.4
Boron, B	4.78	mg/L		0.005	0.002	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Calcium, Ca	18.8	mg/L		0.02	0.006	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Iron, Fe	0.003	mg/L		0.002	0.0004	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Magnesium, Mg	0.474	mg/L		0.01	0.002	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Manganese, Mn	< 0.0001	mg/L	U	0.0005	0.0001	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Potassium, K	30.5	mg/L		0.05	0.01	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Sodium, Na	207	mg/L		0.05	0.01	DAM	06/22/2016 13:30	EPA 200.7-1994, Rev. 4.4
Strontium, Sr	0.817	mg/L		0.001	0.0002	DAM	06/22/2016 13:30	SW-846 6010C-2007, Rev. 3.0
Ammonia, NH3, as N	0.2	mg/L	J	1	0.2	KLK	07/06/2016	EPA 350.1-1993, Rev. 2.0
Alkalinity, as CaCO3	115	mg/L		2	0.4	GES	06/20/2016	SM 2320B-1997
Carbonate Alkalinity	37	mg/L		5	1	GES	06/20/2016	SM 4500-CO2D-1997
Bromide, Br	0.238	mg/L		0.2	0.05	MK	06/20/2016	EPA 300.1-1997, Rev. 1.0
Chloride, Cl	29.6	mg/L		0.2	0.05	MK	06/20/2016	EPA 300.1-1997, Rev. 1.0
Fluoride, F	0.26	mg/L		0.2	0.05	MK	06/20/2016	EPA 300.1-1997, Rev. 1.0
Hardness, Total, as CaCO3	49.0	mg/L		0.1	0.02	DPC	06/30/2016	SM 2340B-1997
Nitrate-Nitrite, NO3-NO2, as N	1.90	mg/L		1	0.2	KLK	07/07/2016	SM 4500NO3 H-2000
Residue, Filterable, TDS	830	mg/L		40	10	SDB	06/21/2016	SM 2540C-1997
Residue, Non-Filterable, TSS	< 0.3	mg/L	U	1	0.3	SDB	06/21/2016	SM 2540D-1997
Sample residue weight is less than 0.0025g but was analyzed at or near the max volume of 1000mL. Sdb62216								
Sulfate, SO4	432	mg/L		2	1	MK	06/20/2016	EPA 300.1-1997, Rev. 1.0

ATTACHMENT F

PCA Data Summary

ELECTRONIC PCA DATA FOR ATTACHMENT F

WELSH POWER PLANT
 BOTTOM ASH STORAGE POND
 PITTSBURG, TEXAS

Well	Location	Date	Barium (mg/L)	Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	Sulfate (mg/L)	TDS (mg/L)
AD-3 (2016 - 2022)	Downgradient	05/31/2016	0.0530	0.020	1.41	9.0	0.50	4.0	106
AD-3 (2016 - 2022)	Downgradient	07/27/2016	0.0360	0.020	0.71	8.0	0.50	5.0	118
AD-3 (2016 - 2022)	Downgradient	09/30/2016	0.0435	0.020	0.25	9.0	0.50	6.0	127
AD-3 (2016 - 2022)	Downgradient	10/19/2016	0.0410	0.050	0.81	8.0	0.50	9.0	112
AD-3 (2016 - 2022)	Downgradient	12/12/2016	0.0445	0.020	1.03	8.0	0.50	11.0	138
AD-3 (2016 - 2022)	Downgradient	01/19/2017	0.0410	0.020	0.75	9.0	0.50	4.0	76
AD-3 (2016 - 2022)	Downgradient	02/23/2017	0.0370	0.020	0.57	9.0	0.50	5.0	104
AD-3 (2016 - 2022)	Downgradient	06/07/2017	0.0380	0.033	0.54	9.0	0.26	5.0	104
AD-3 (2016 - 2022)	Downgradient	10/06/2017	0.0250	0.021	0.91	9.0	0.50	7.0	114
AD-3 (2016 - 2022)	Downgradient	05/24/2018	0.0250	0.007	0.55	8.0	0.50	3.0	98
AD-3 (2016 - 2022)	Downgradient	11/13/2018	0.0250	0.009	0.68	8.0	0.50	4.1	114
AD-3 (2016 - 2022)	Downgradient	02/20/2019	0.0250	0.010	0.82	9.4	0.13	1.9	110
AD-3 (2016 - 2022)	Downgradient	05/30/2019	0.0632	0.100	3.02	9.0	0.18	2.3	110
AD-3 (2016 - 2022)	Downgradient	07/24/2019	0.0250	0.050	1.35	7.0	0.09	6.0	116
AD-3 (2016 - 2022)	Downgradient	05/20/2020	0.0250	0.050	0.72	8.0	0.11	2.7	236
AD-3 (2016 - 2022)	Downgradient	10/14/2020	0.0250	0.050	0.71	7.3	0.16	3.5	116
AD-3 (2016 - 2022)	Downgradient	06/02/2021	0.0330	0.025	0.65	8.0	0.18	3.3	110
AD-3 (2016 - 2022)	Downgradient	10/20/2021	0.0426	0.050	0.90	7.1	0.15	6.3	130
AD-3 (2016 - 2022)	Downgradient	06/28/2022	0.0339	0.016	0.68	8.0	0.14	2.6	120
AD-3 (2016 - 2022)	Downgradient	11/01/2022	0.0458	0.050	1.57	8.0	0.14	13.0	110
AD-3 (2016 - 2022)	Downgradient	11/01/2022	0.0489	0.010	1.70	8.0	0.14	12.8	120
AD-3 (2016 - 2022)	Downgradient	06/06/2023	0.0345	0.007	0.65	9.1	0.11	2.4	100
AD-3 (2016 - 2022)	Downgradient	10/04/2023	0.0480	0.019	1.16	8.7	0.12	9.5	100
AD-3 (2016 - 2022)	Downgradient	04/01/2024	0.0383	0.027	0.65	10.3	0.12	2.4	100
AD-3 (2016 - 2022)	Downgradient	04/01/2024	0.0376	0.016	0.62	10.2	0.11	2.1	100
AD-3 (2016 - 2022)	Downgradient	09/10/2024	0.0411	0.010	0.78	9.9	0.09	4.0	120
AD-3 (2016 - 2022)	Downgradient	09/10/2024	0.0412	0.009	0.77	9.9	0.09	4.1	120
AD-3 (2016 - 2022)	Downgradient	04/29/2025	0.0405	0.008	0.67	11.4	0.14	2.0	110
AD-3 (2016 - 2022)	Downgradient	04/29/2025	0.0397	0.008	0.61	11.6	0.14	2.1	110
AD-3 (2016 - 2022)	Downgradient	09/04/2025	0.0412	0.014	0.79	11.6	0.13	2.7	100
AD-4C (2016 - 2022)	Downgradient	05/31/2016	0.0880	0.050	0.80	10.0	0.50	32.0	204
AD-4C (2016 - 2022)	Downgradient	07/27/2016	0.0590	0.030	0.67	12.0	0.50	35.0	208
AD-4C (2016 - 2022)	Downgradient	09/30/2016	0.0455	0.020	0.25	11.0	0.50	45.0	212
AD-4C (2016 - 2022)	Downgradient	10/19/2016	0.0440	0.035	0.45	10.0	0.50	35.0	212
AD-4C (2016 - 2022)	Downgradient	12/12/2016	0.0190	0.020	0.34	11.0	0.50	36.0	252
AD-4C (2016 - 2022)	Downgradient	01/19/2017	0.0750	0.020	0.76	10.0	0.50	43.0	184
AD-4C (2016 - 2022)	Downgradient	02/23/2017	0.0300	0.020	0.47	9.0	0.50	40.0	196
AD-4C (2016 - 2022)	Downgradient	06/07/2017	0.0514	0.033	0.57	10.0	0.50	39.0	228
AD-4C (2016 - 2022)	Downgradient	10/06/2017	0.0250	0.026	0.65	11.0	0.50	44.0	226
AD-4C (2016 - 2022)	Downgradient	05/24/2018	0.0250	0.025	0.43	14.0	0.50	42.0	224
AD-4C (2016 - 2022)	Downgradient	11/13/2018	0.0250	0.010	0.61	7.5	0.50	56.0	220
AD-4C (2016 - 2022)	Downgradient	02/20/2019	0.0250	0.010	0.93	9.2	0.10	60.1	242
AD-4C (2016 - 2022)	Downgradient	05/30/2019	0.0311	0.100	0.56	14.8	0.16	52.8	208
AD-4C (2016 - 2022)	Downgradient	07/24/2019	0.0250	0.050	0.59	13.0	0.50	52.0	284
AD-4C (2016 - 2022)	Downgradient	05/20/2020	0.0250	0.050	0.68	15.1	0.11	69.0	268
AD-4C (2016 - 2022)	Downgradient	10/13/2020	0.0250	0.050	0.61	13.1	0.18	76.1	278
AD-4C (2016 - 2022)	Downgradient	06/02/2021	0.0558	0.038	1.10	13.3	0.16	82.4	280
AD-4C (2016 - 2022)	Downgradient	10/20/2021	0.0454	0.021	0.80	14.3	0.15	76.8	280
AD-4C (2016 - 2022)	Downgradient	06/28/2022	0.0529	0.043	1.08	14.1	0.12	83.6	280
AD-4C (2016 - 2022)	Downgradient	06/28/2022	0.0535	0.041	1.06	14.1	0.12	83.8	280
AD-4C (2023 - 2025)	Downgradient	10/04/2023	0.0888	0.207	1.67	13.0	0.13	115.0	320
AD-4C (2023 - 2025)	Downgradient	04/01/2024	0.0920	0.217	1.83	14.0	0.12	120.0	320
AD-4C (2023 - 2025)	Downgradient	09/10/2024	0.0876	0.251	1.74	15.9	0.10	123.0	360
AD-4C (2023 - 2025)	Downgradient	04/29/2025	0.0876	0.312	2.41	15.9	0.17	164.0	390
AD-4C (2023 - 2025)	Downgradient	09/02/2025	0.0797	0.352	2.63	14.8	0.16	174.0	410
AD-4C (2023 - 2025)	Downgradient	09/02/2025	0.0835	0.363	2.68	15.1	0.16	172.0	420
AD-16R (2016 - 2025)	Downgradient	06/06/2017	0.0464	0.042	2.75	7.0	0.34	54.0	204
AD-16R (2016 - 2025)	Downgradient	06/28/2017	0.0414	0.064	1.24	6.0	0.25	55.0	200
AD-16R (2016 - 2025)	Downgradient	07/14/2017	0.0544	0.044	2.39	6.0	0.25	44.0	160
AD-16R (2016 - 2025)	Downgradient	07/21/2017	0.0511	0.032	2.50	7.0	0.26	54.0	180
AD-16R (2016 - 2025)	Downgradient	07/28/2017	0.0485	0.028	1.92	7.0	0.50	48.0	162
AD-16R (2016 - 2025)	Downgradient	08/02/2017	0.0496	0.032	1.86	7.0	0.50	49.0	174
AD-16R (2016 - 2025)	Downgradient	08/11/2017	0.0475	0.062	1.83	8.0	0.50	44.0	164
AD-16R (2016 - 2025)	Downgradient	08/18/2017	0.0439	0.030	1.44	7.0	0.50	46.0	160
AD-16R (2016 - 2025)	Downgradient	08/31/2017	0.0441	0.028	1.33	7.0	0.50	63.0	152
AD-16R (2016 - 2025)	Downgradient	10/06/2017	0.0250	0.047	0.90	7.0	0.50	82.0	152
AD-16R (2016 - 2025)	Downgradient	05/23/2018	0.0250	0.032	2.53	6.0	0.50	67.0	204
AD-16R (2016 - 2025)	Downgradient	11/13/2018	0.0250	0.020	0.47	6.5	0.50	54.0	186
AD-16R (2016 - 2025)	Downgradient	02/20/2019	0.0250	0.030	2.00	6.8	0.20	52.8	200
AD-16R (2016 - 2025)	Downgradient	05/29/2019	0.0724	0.100	1.36	5.4	0.19	41.6	80
AD-16R (2016 - 2025)	Downgradient	07/24/2019	0.0250	0.030	1.50	7.0	0.13	70.0	250
AD-16R (2016 - 2025)	Downgradient	05/20/2020	0.0250	0.020	1.54	7.1	0.16	71.7	250
AD-16R (2016 - 2025)	Downgradient	10/14/2020	0.0250	0.020	0.55	6.5	0.14	51.3	180
AD-16R (2016 - 2025)	Downgradient	06/02/2021	0.0403	0.028	1.00	7.0	0.28	65.4	190
AD-16R (2016 - 2025)	Downgradient	10/20/2021	0.0466	0.019	0.40	7.1	0.11	39.0	170
AD-16R (2016 - 2025)	Downgradient	06/27/2022	0.0424	0.026	0.34	7.2	0.10	46.5	170
AD-16R (2016 - 2025)	Downgradient	11/01/2022	0.0488	0.019	0.32	8.0	0.10	48.1	150
AD-16R (2016 - 2025)	Downgradient	06/06/2023	0.0397	0.019	0.35	6.9	0.06	50.4	170
AD-16R (2016 - 2025)	Downgradient	06/06/2023	0.0421	0.019	0.36	6.9	0.06	50.6	170
AD-16R (2016 - 2025)	Downgradient	10/04/2023	0.0453	0.021	0.29	6.9	0.08	50.6	170
AD-16R (2016 - 2025)	Downgradient	10/04/2023	0.0417	0.023	0.31	6.7	0.09	52.6	170
AD-16R (2016 - 2025)	Downgradient	04/02/2024	0.0355	0.033	0.54	6.7	0.10	66.5	170
AD-16R (2016 - 2025)	Downgradient	09/10/2024	0.0475	0.020	0.32	7.3	0.05	44.7	180
AD-16R (2016 - 2025)	Downgradient	04/29/2025	0.0345	0.025	0.44	7.2	0.16	54.5	200
AD-16R (2016 - 2025)	Downgradient	09/02/2025	0.0490	0.024	0.31	7.5	0.08	41.7	150
BASP Water	BASP	06/15/2016	0.0895	4.780	18.80	29.6	0.26	432.0	830
BASP Water	BASP	06/21/2016	0.0658	4.390	24.70	28.7	0.18	423.0	812
BASP Water	BASP	08/26/2020	0.1310	4.580	60.40	16.3	0.34	343.0	790

Notes:

mg/L = milligrams per liter

BASP = Bottom Ash Storage Pond

TDS = Total Dissolved Solids

Non-detect values were replaced with half of detection limit.

ATTACHMENT G

Certification by a Qualified Professional Engineer

CERTIFICATION BY A QUALIFIED PROFESSIONAL ENGINEER

I certify that the selected and above described alternative source demonstration is appropriate for evaluating the groundwater monitoring data for the Welsh Bottom Ash Storage Pond CCR management area and that the requirements of 30 TAC §352.951(e) have been met.

Beth Ann Gross

Printed Name of Licensed Professional Engineer

Beth Ann Gross

Signature



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Texas Registered Engineering Firm
No. F-1182

79864
License Number

Texas
Licensing State

March 27, 2026
Date